

Project Description

The Great Northern Paper Company's East Millinocket paper mill closure in 2014, after over a century of operations, has had a severe impact on the region's economy. The Town of East Millinocket has purchased most of the former site and has taken the lead in redevelopment efforts with the intent to bring business, industry, and jobs back to the region. Recognizing the decline in the structures and infrastructure associated with the former mill due to years of vacancy and deferred maintenance, the Town has initiated steps toward assessment of structures and environmental conditions, leading to targeted repair and rehabilitation of site facilities with high value and redevelopment potential. The Town's ongoing participation in the US EPA's Brownfields program and VRAP processes is identifying environmental impacts on site as well as providing resources for site clean-up.

The condition of some of the site buildings, against the backdrop of the damage that a Maine winter can cause to an unsecured and unheated structure, has created a narrowing window to insure the ongoing economic value of the structures for redevelopment. Acting on the urgency for maintenance and rehabilitation, the Town of East Millinocket has been successful in obtaining direct federal assistance for phased projects via the Congressionally Directed Spending process in the last three federal appropriation cycles. Renovations, repairs, and maintenance of existing site infrastructure will further enable access, safety, and functionality of the property for forthcoming industrial/commercial tenants. Because the Town owns the property on which the proposed action will take place, no acquisition of property is needed for the project.

The completed phases and proposed next phase are as follows:

Phase I used the FY22 CDS appropriation designed to address the progressive deterioration of a standalone building – the Training Center and attached warehouse, as well as the building envelope of a complex of structures that includes the Train Shed, the Core Room and the Paper Warehouse.

Phase II (Part 1) used the FY23 CDS appropriation to continue work on securing the envelope and the renovation of adjoining buildings in the complex including the 5/6 Finishing Room and Core Room.

Phase II (Part 2) will use the FY24 CDS appropriation for ongoing structure and infrastructure improvements involving construction, renovation/rehabilitation, equipment and site work, as well as demolition cleanup, specifically:

1. Completing maintenance, repair, and renovations of five existing structures to make them useable for future commercial/industrial tenants: the Recycle Fiber Building (89,000 sqft), the Finishing Room/Store Room* (20,000 sqft), the Train Shed* (36,000 sqft), the Training Center* (16,000 sqft) and the Backflow Building (180 sqft). Potential actions (as needed for each building) would include evaluating existing roof systems, enclosing building envelopes (roof repair, door repair/replacements), replacing or updating interior mechanical systems (electrical, fire suppression, HVAC), removing surplus industrial equipment, and general cleaning.
2. Removal of demolition debris from previously demolished structures/portions of structures.*

3. Replacing, repairing or adding connection(s) to the municipal water and sewer system to service the Training Center and the Finishing Room (estimated 10,000 cubic yards of total ground disturbance).

**indicates activities that are a continuation of the Town's previous (FY22 and FY23) HUD CPF awarded projects*

Since **Phase II Part 2** is a continuation of a larger project that is being approached incrementally, the Town intends to use the same administrative structure and contracting team that is in place.

Certain proposed FY24 activities are a continuation of project activities that were supported by HUD CPF in FY22 (B-22-CP-ME-0422) and FY23 (B-23-CP-ME-0777) and underwent CEST Environmental Review. These activities would have no effect on the yet-to-be-considered new scope work, and HUD's supplemental assistance CENST (24 CFR 58.35(b)(7)) would apply. These specific activities, indicated by asterisk (*) above, include:

- Structural maintenance, repair, and renovation (roofs, doors, interior mechanical systems) of the Finishing Room/Store Room, Train Shed, and Training Center buildings; and
- Removal of demolition debris.

The *East Millinocket HUD CPF FY22-23 CEST Environmental Review Record* would apply to these activities (herein designated as "FY24 Supplemental Assistance Activities") and is attached for reference.

In addition to the *HUD CPF FY22-23 CEST*, the FY24 Supplemental Assistance Activities also require an evaluation under new HUD ER policies that have become effective since the FY22 and FY23 awards, namely HUD's requirement to consider radon as part of the environmental review (*CPD-23-103*, issued January 2024), and HUD's implementation of FFRMS for evaluation of risks/impacts associated with floodplains (24 CFR 55, effective May 2024). The FY24 Supplemental Assistance Activities comply with these two policies, and impact determinations are described and justified below:

Radon:

The FY24 Supplemental Assistance Activities subject to evaluation under the radon policy are those related to work in and around the Finishing Room/Store Room, Train Shed, and Training Center buildings. These buildings are non-residential and primarily used as warehouses and industrial spaces. They feature large overhead doors, high ceilings, and experience significant air exchange due to frequent in-and-out traffic. As these structures are being repurposed and are not yet fully enclosed, they currently undergo substantial outdoor/indoor air exchange. CDC data indicate that the median air radon levels in Penobscot County are less than 4 pCi/mL (see accompanying Radon Map showing Penobscot County). Given these factors, the potential for radon exposure in these spaces is absent to negligible.

FFRMS Floodplain:

A FFRMS Floodplain evaluation was recently completed as part of the Environmental Assessment for a FY23 grant received from the Northern Border Regional Commission (NBRC) for infrastructure improvements at the former mill site. This 8-step FFRMS review and documentation was completed in June 2024 and is applicable to all areas of the mill site, including areas of FY24 Supplemental Assistance Activities. Based on the evaluation, these activities are located outside of the floodplain and therefore

no risks or adverse impacts related to floodplains are anticipated. This determination is supported by the accompanying 2024 NBRC EA Appendix E - 8-Step FFRMS document.

FY24 Supplemental Assistance Activities are continued actions that have undergone environmental review and for which alternatives (including a no-action alternative) have been considered. These activities are not Choice-Limiting Actions and therefore can move forward without further review.

The remaining proposed activities:

- Completing maintenance, repair, and renovations of the Recycle Fiber Building, and the Backflow Building; and
- Connecting the Training Center and the Finishing Room buildings to the municipal water and sewer system,

are different in scope and therefore reviewed here under the proceeding Part 58 Environmental Assessment.



U.S. Department of Housing and Urban
Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov
espanol.hud.gov

**Environmental Review for Activity/Project that is
Categorically Excluded Subject to Section 58.5
Pursuant to 24 CFR 58.35(a)**

Project Information

Project Name: East-Millinocket-Mill-Redevelopment-EDI-CPF

HEROS Number: 900000010309851

Responsible Entity (RE): TOWN OF EAST MILLINOCKET, East Millinocket ME,

State / Local Identifier:

RE Preparer: Philip Ruck

Certifying Officer: Michael Michaud

Grant Recipient (if different than Responsible Entity):

Point of Contact:

Consultant (if applicable): Stillwater Environmental Engineering, Inc.

Point of Contact: Philip Ruck, P.E.

Project Location: 50 Main Street, East Millinocket, ME 04430

Additional Location Information:

N/A

Direct Comments to:

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Full project description is attached.

Maps, photographs, and other documentation of project location and description:

[Project Description 3-16-23.pdf](#)

[EastMill_SiteVisitSummary_SEE_3-2-23.pdf](#)

Level of Environmental Review Determination:

Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at 58.5:

Determination:

	This categorically excluded activity/project converts to EXEMPT per Section 58.34(a)(12), because it does not require any mitigation for compliance with any listed statutes or authorities, nor requires any formal permit or license; Funds may be committed and drawn down after certification of this part for this (now) EXEMPT project; OR
	This categorically excluded activity/project cannot convert to Exempt status because one or more statutes or authorities listed at Section 58.5 requires formal consultation or mitigation. Complete consultation/mitigation protocol requirements, publish NOI/RROF and obtain "Authority to Use Grant Funds" (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR
	This project is not categorically excluded OR, if originally categorically excluded, is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Approval Documents:

7015.15 certified by Certifying Officer on:

7015.16 certified by Authorizing Officer on:

Funding Information

Grant / Project Identification Number	HUD Program	Program Name
B-22-CP-ME-0422	Community Planning and Development (CPD)	Community Project Funding (CPF) Grants
B-23-CP-ME-0777	Community Planning and Development (CPD)	Community Project Funding (CPF) Grants

Estimated Total HUD Funded, Assisted \$4,450,000.00

or Insured Amount:

Estimated Total Project Cost:

\$4,450,000.00

Compliance with 24 CFR §50.4, §58.5 and §58.6 Laws and Authorities

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §50.4, §58.5, and §58.6	Are formal compliance steps or mitigation required?	Compliance determination (See Appendix A for source determinations)
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.6		
Airport Hazards Clear Zones and Accident Potential Zones; 24 CFR Part 51 Subpart D	<input type="checkbox"/> Yes <input type="checkbox"/> No	The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. The project is in compliance with Airport Hazards requirements. The map shows the 15,000 foot radius around the project site. The closest airport is a civilian airport, Millinocket Municipal Airport (gray polygon), which is outside of that radius. Information obtained on January 24, 2023 using the NEPAassist mapping tool.
Coastal Barrier Resources Act Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	<input type="checkbox"/> Yes <input type="checkbox"/> No	This project is not located in a CBRS Unit. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. This was determined by using the U.S Fish & Wildlife Service Coastal Barrier Resources System Mapper, and documented on 1-25-23 using output from the CBRS Validation Tool.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	<input type="checkbox"/> Yes <input type="checkbox"/> No	The structure or insurable property is not located in a FEMA-designated Special Flood Hazard Area. While flood insurance may not be mandatory in this instance, HUD recommends that all insurable structures maintain flood insurance under the National Flood Insurance Program (NFIP). The project is in compliance with flood insurance requirements. The most current FEMA FIRM map for the Town of East

		<p>Millinocket (Community # 230163B) was obtained from the online FEMA Flood Map Service Center. The flood map for the selected area was effective on 02/04/1987, with no revisions or amendments as of the date of access, 1/24/23. Floodplain designations found on Map -05 indicate that the project area is within Zone C, which is not a designated floodplain category. Maine Flood Hazard Q3 (digital) Data are available for the area, and corroborate the FIRM map data for the project area. A map of the area showing the Q3 data layer was accessed from the Maine Flood Hazard Map web application on 1/25/23.</p>
<p align="center">STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.5</p>		
<p>Air Quality Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Based on the project description, this project includes no activities that would require further evaluation under the Clean Air Act. The project is in compliance with the Clean Air Act.</p>
<p>Coastal Zone Management Act Coastal Zone Management Act, sections 307(c) & (d)</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>This project is not located in or does not affect a Coastal Zone as defined in the state Coastal Management Plan. The project is in compliance with the Coastal Zone Management Act. The Maine Department of Marine Resources Coastal Zone Map and list of Towns and Townships in Maine's Coastal Zone online resource (https://www.maine.gov/dmr/programs/maine-coastal-program/coastal-zone-map) was consulted on 1-25-23.</p>
<p>Contamination and Toxic Substances 24 CFR 50.3(i) & 58.5(i)(2)]</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Site contamination was evaluated as follows: ASTM Phase I ESA, ASTM Phase II ESA, Remediation or clean-up plan. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the property. The adverse environmental impacts can be mitigated. With mitigation, identified in</p>

		the mitigation section of this review, the project will be in compliance with contamination and toxic substances requirements. A contamination summary and referenced evaluation materials are included as supporting documents.
Endangered Species Act Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	<input type="checkbox"/> Yes <input type="checkbox"/> No	The USFWS IPaC system was consulted on 1-30-23. A Species List (attached) was generated and identifies four ESA-protected species (one threatened, two endangered, and one candidate species) in the action area. No Critical Habitats were identified in the action area. A No Effect determination was made because the project involves only interior and exterior renovations to existing buildings. This project will have No Effect on listed species due to the nature of the activities involved in the project. This project is in compliance with the Endangered Species Act.
Explosive and Flammable Hazards Above-Ground Tanks)[24 CFR Part 51 Subpart C	<input type="checkbox"/> Yes <input type="checkbox"/> No	Though the projects do not increase residential density (structures are not residential), but the project involves converting uninhabitable buildings into habitable buildings, and the HUD Environmental Officer stated that compliance with the Explosive and Flammable hazards is required. Stationary aboveground storage containers containing applicable common industrial fuels were identified within 1 mile of the project site, as determined by a thorough stepwise review of local/regional explosive and flammable hazards resources. First, Stillwater Environmental Engineering (SEE) accessed State online resources for information: The Maine Department of Environmental Protection (DEP) Registered Petroleum Tanks Database and the Maine DEP TankSmart database were consulted. One AST registered with the State of Maine as "planned," a 500 gallon diesel tank, was identified

		<p>within the 1-mile project radius. This tank's planned location is 1500 ft. from the project area, well beyond the calculated ASDPPU of 207.20 ft. and ASDBPU of 36.50 ft. (see attached ASD tool calculations). To identify permitted propane tanks, SEE consulted the State of Maine Regulatory Licensing & Permitting online search. No permitted propane tanks were identified within 1 mile of the project site. Prior to the online searches, on 2/7/23, the Maine Fire Marshal's Office (FMO) was consulted to obtain information about the presence/absence of any permitted ASTs, and the Maine Fuel Board (MFB) was consulted regarding any registered propane tanks. The response from the FMO indicated that all registered ASTs are found on the TankSmart database, by doing a search for specific addresses/locations (as was completed in the previous step). The MFB confirmed that no permitted tanks were in the area and clarified that permitted sites are those with more than four 1,000 gallon propane tanks, or with one or more 2,000 gallon tanks on site. Email correspondence between SEE and these two agencies is attached. Third, SEE consulted the property/project manager by phone to ask about the presence of aboveground tanks. He mentioned recently installed propane tanks and an out of service aboveground "Bunker C" tank. Two 1,000 gallon propane tanks were installed in 2021 for heating the Paper Warehouse building. Tank sizes were confirmed during a site visit conducted by SEE on 3/2/23. Propane tanks of 1,000 gallons or less, such as those identified on site, are not covered by 24 CFR Part 51 Subpart C requirements, because the State of Maine has adopted the NFPA 58: Liquefied Petroleum Gas</p>
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		<p>Code (2020 Edition). The Bunker C (#6 fuel) tank is a 750,000 gallon AST located 700 feet northwest of the project area. This tank is out of service and no longer stores Bunker C, and will be removed in the near future as part of the site remediation process that is underway. Bunker C is not on the list of specific petroleum products and chemicals defined to be hazardous substances in Appendix I of 24 CFR part 51 subpart C, and for these reasons the tank does not constitute a thermal radiation nor blast overpressure hazard. Lastly, a review of Google Earth images (9/16/2022) and a site visit on 3/2/23 revealed no additional visible aboveground tanks within 1 mile of the project site, not already accounted for. Based on this review, the project is in compliance with explosive and flammable hazard requirements. Supporting documentation: * Map of tank locations within 1 mile of the East Millinocket CPF projects. * TankSmart database list, search conducted on 2/16/23 for registered tanks in East Millinocket. Highlighted rows correspond to labels on the map. * ASD calculation tool output for the planned 500 gallon AST. * Photos of the propane tanks. * Email correspondence with the Maine Fire Marshal's Office and the Maine Fuel Board on 2/8/23 about the existence of ASTs and propane tanks in East Millinocket.</p>
<p>Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The project is in compliance with the Farmland Protection Policy Act.</p>
<p>Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>This project does not occur in a floodplain. The project is in compliance with Executive Order 11988. The most current FEMA FIRM map for the Town of East Millinocket (Community #</p>

		230163B) was obtained from the online FEMA Flood Map Service Center. The flood map for the selected area was effective on 02/04/1987, with no revisions or amendments as of the date of access, 1/24/23. Floodplain designations found on Map -05 indicate that the project area is within Zone C, which is not a designated floodplain category.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	<input type="checkbox"/> Yes <input type="checkbox"/> No	Based on the project description and SHPO review, the project has No Potential to Cause Effects. The project is in compliance with Section 106.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	<input type="checkbox"/> Yes <input type="checkbox"/> No	Based on the project description, this project includes no activities that would require further evaluation under HUD's noise regulation. The project is in compliance with HUD's Noise regulation.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	<input type="checkbox"/> Yes <input type="checkbox"/> No	Based on the project description, the project consists of activities that are unlikely to have an adverse impact on groundwater resources. The project is in compliance with Sole Source Aquifer requirements. In addition, the project site is not located on or near, nor will the project impact, any mapped sole source aquifer or significant sand and gravel aquifers. See attachments showing locations of sole source aquifers on islands off the Maine coast, and locations of significant sand and gravel aquifers in the relevant portion of East Millinocket.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	<input type="checkbox"/> Yes <input type="checkbox"/> No	The project is within an existing industrial complex and will not impact on- or off-site wetlands. Based on the project description this project includes no activities that would require further evaluation under this section. The project is in compliance with Executive Order 11990. Wetlands near the project site were mapped using the National Wetlands Inventory (NWI) layer on the NEPAassist mapping tool,

		and there are no indications of wetlands directly within the project area. The Penobscot River (West branch) is located approximately 500 feet to the south of the project work area, and will not be impacted by the project maintenance/rehabilitation activities. See attached wetlands map.
Wild and Scenic Rivers Act Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	<input type="checkbox"/> Yes <input type="checkbox"/> No	This project is not within proximity of a NWSRS river. The project is in compliance with the Wild and Scenic Rivers Act. The nearest designated Wild and Scenic River is the Allagash River, more than 40 miles to the northwest of the project location, and shown on the accompanying map.
HUD HOUSING ENVIRONMENTAL STANDARDS		
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	<input type="checkbox"/> Yes <input type="checkbox"/> No	No adverse environmental impacts were identified in the project's total environmental review. The project is in compliance with Executive Order 12898. The project will have a positive impact on the region's low-income community by contributing to redevelopment efforts and re-use of assets that are in place at the former East Millinocket mill site. The redevelopment projects are intended to facilitate economic development in a region with a high level of unemployment following the 2014 closure of the GNP Paper Mill, and a Town (East Millinocket) that is a designated Opportunity Zone. Site redevelopment contributes to regional revitalization, as described in the 2020 Katahdin Region Comprehensive Plan for Millinocket, East Millinocket, and Medway, Maine (p. 119).

Mitigation Measures and Conditions [40 CFR 1505.2(c)]:

Summarized below are all mitigation measures adopted by the Responsible Entity to reduce, avoid or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be

incorporated into project contracts, development agreements and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure or Condition	Comments on Completed Measures	Mitigation Plan	Complete
Contamination and Toxic Substances	Compliance was achieved through a combination of means, including State (Maine) Voluntary Response Action Program, engineering controls, and institutional controls. Compliance is described in the attached Contamination Summary document.	N/A		

Project Mitigation Plan

The project will adhere to institutional controls (Environmental Covenants/Agreements associated with the property) that place restrictions on property use, excavations and groundwater use. The project will not breach any engineering controls that are in place within the project area. The project will follow any USEPA- and/or Maine DEP-approved Brownfield/VRAP remediation workplans developed for the site. If asbestos containing materials are to be impacted by project renovation or demolition activities, abatement procedures will follow the requirements of the Maine DEP Lead & Asbestos Hazard Prevention Program.

Supporting documentation on completed measures

APPENDIX A: Related Federal Laws and Authorities

Airport Hazards

General policy	Legislation	Regulation
It is HUD's policy to apply standards to prevent incompatible development around civil airports and military airfields.		24 CFR Part 51 Subpart D

1. To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?

✓ **No**

Based on the response, the review is in compliance with this section.
Document and upload the map showing that the site is not within the applicable distances to a military or civilian airport below

Yes

Screen Summary

Compliance Determination

The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. The project is in compliance with Airport Hazards requirements. The map shows the 15,000 foot radius around the project site. The closest airport is a civilian airport, Millinocket Municipal Airport (gray polygon), which is outside of that radius. Information obtained on January 24, 2023 using the NEPAAssist mapping tool.

Supporting documentation

[Airport-Hazards-EastMill Map 1-24-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Coastal Barrier Resources

General requirements	Legislation	Regulation
HUD financial assistance may not be used for most activities in units of the Coastal Barrier Resources System (CBRS). See 16 USC 3504 for limitations on federal expenditures affecting the CBRS.	Coastal Barrier Resources Act (CBRA) of 1982, as amended by the Coastal Barrier Improvement Act of 1990 (16 USC 3501)	

1. Is the project located in a CBRS Unit?

✓ No

Document and upload map and documentation below.

Yes

Screen Summary

Compliance Determination

This project is not located in a CBRS Unit. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. This was determined by using the U.S Fish & Wildlife Service Coastal Barrier Resources System Mapper, and documented on 1-25-23 using output from the CBRS Validation Tool.

Supporting documentation

[CBR Validation-EastMill 1-25-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Flood Insurance

General requirements	Legislation	Regulation
Certain types of federal financial assistance may not be used in floodplains unless the community participates in National Flood Insurance Program and flood insurance is both obtained and maintained.	Flood Disaster Protection Act of 1973 as amended (42 USC 4001-4128)	24 CFR 50.4(b)(1) and 24 CFR 58.6(a) and (b); 24 CFR 55.1(b).

1. Does this project involve financial assistance for construction, rehabilitation, or acquisition of a mobile home, building, or insurable personal property?

No. This project does not require flood insurance or is excepted from flood insurance.

✓ Yes

2. Upload a FEMA/FIRM map showing the site here:

[East Millinocket FIRM map+Project Area.pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The [FEMA Map Service Center](#) provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site. Provide FEMA/FIRM floodplain zone designation, panel number, and date within your documentation.

Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?

✓ No

Based on the response, the review is in compliance with this section.

Yes

4. While flood insurance is not mandatory for this project, HUD strongly recommends that all insurable structures maintain flood insurance under the National Flood Insurance Program (NFIP). Will flood insurance be required as a mitigation measure or condition?

Yes

✓ No

Screen Summary

Compliance Determination

The structure or insurable property is not located in a FEMA-designated Special Flood Hazard Area. While flood insurance may not be mandatory in this instance, HUD recommends that all insurable structures maintain flood insurance under the National Flood Insurance Program (NFIP). The project is in compliance with flood insurance requirements. The most current FEMA FIRM map for the Town of East Millinocket (Community # 230163B) was obtained from the online FEMA Flood Map Service Center. The flood map for the selected area was effective on 02/04/1987, with no revisions or amendments as of the date of access, 1/24/23. Floodplain designations found on Map -05 indicate that the project area is within Zone C, which is not a designated floodplain category. Maine Flood Hazard Q3 (digital) Data are available for the area, and corroborate the FIRM map data for the project area. A map of the area showing the Q3 data layer was accessed from the Maine Flood Hazard Map web application on 1/25/23.

Supporting documentation

[Flood Hazard Map-EastMill 1-25-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Air Quality

General requirements	Legislation	Regulation
The Clean Air Act is administered by the U.S. Environmental Protection Agency (EPA), which sets national standards on ambient pollutants. In addition, the Clean Air Act is administered by States, which must develop State Implementation Plans (SIPs) to regulate their state air quality. Projects funded by HUD must demonstrate that they conform to the appropriate SIP.	Clean Air Act (42 USC 7401 et seq.) as amended particularly Section 176(c) and (d) (42 USC 7506(c) and (d))	40 CFR Parts 6, 51 and 93

1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?

Yes

✓ No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

Based on the project description, this project includes no activities that would require further evaluation under the Clean Air Act. The project is in compliance with the Clean Air Act.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

No

Coastal Zone Management Act

General requirements	Legislation	Regulation
Federal assistance to applicant agencies for activities affecting any coastal use or resource is granted only when such activities are consistent with federally approved State Coastal Zone Management Act Plans.	Coastal Zone Management Act (16 USC 1451-1464), particularly section 307(c) and (d) (16 USC 1456(c) and (d))	15 CFR Part 930

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

Yes

✓ No

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

This project is not located in or does not affect a Coastal Zone as defined in the state Coastal Management Plan. The project is in compliance with the Coastal Zone Management Act. The Maine Department of Marine Resources Coastal Zone Map and list of Towns and Townships in Maine's Coastal Zone online resource (<https://www.maine.gov/dmr/programs/maine-coastal-program/coastal-zone-map>) was consulted on 1-25-23.

Supporting documentation

[Coastal Zone Map \(Maine\) 1-25-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Contamination and Toxic Substances

General requirements	Legislation	Regulations
It is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of the occupants or conflict with the intended utilization of the property.		24 CFR 58.5(i)(2) 24 CFR 50.3(i)

1. How was site contamination evaluated? Select all that apply. Document and upload documentation and reports and evaluation explanation of site contamination below.

- ☒ American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ESA)
- ☒ ASTM Phase II ESA
- ☒ Remediation or clean-up plan
- ☐ ASTM Vapor Encroachment Screening
- ☐ None of the Above

2. Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)

No

- ☒ Yes

3. Mitigation

Document and upload the mitigation needed according to the requirements of the appropriate federal, state, tribal, or local oversight agency. If the adverse environmental effects cannot be mitigated, then HUD assistance may not be used for the project at this site.

Can adverse environmental impacts be mitigated?

Adverse environmental impacts cannot feasibly be mitigated.

- ✓ Yes, adverse environmental impacts can be eliminated through mitigation. Document and upload all mitigation requirements below.

4. Describe how compliance was achieved in the text box below. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls, or use of institutional controls.

Compliance was achieved through a combination of means, including State (Maine) Voluntary Response Action Program, engineering controls, and institutional controls. Compliance is described in the attached Contamination Summary document.

If a remediation plan or clean-up program was necessary, which standard does it follow?

Complete removal

- ✓ Risk-based corrective action (RBCA)

Screen Summary

Compliance Determination

Site contamination was evaluated as follows: ASTM Phase I ESA, ASTM Phase II ESA, Remediation or clean-up plan. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the property. The adverse environmental impacts can be mitigated. With mitigation, identified in the mitigation section of this review, the project will be in compliance with contamination and toxic substances requirements. A contamination summary and referenced evaluation materials are included as supporting documents.

Supporting documentation

[10- Jim Byrne email re East Millinocket mill 3-13-23.pdf](#)
[8- Brownfield Assessment for Area 2N Feb 2022.pdf](#)
[7- E-Millinocket-GNP-Brownfield-Ransom Phase 2 SOW May 2020.pdf](#)
[6- Final East Millinocket Phase I Update Rev 0 Feb 2020.pdf](#)
[5- GNP Radiation Site Investigation Closure Memo EPA_07272020.pdf](#)
[4- 2015 Asbestos Renovation-Demolition Impact Survey_EMI.pdf](#)
[3- East Millinocket-GNP-Recorded-NFAA-2003.pdf](#)
[2- East Millinocket_GNP_EPA CAFO_09271991.pdf](#)
[1- E-Millinocket-GNP-02-1989 drum storage rpt.pdf](#)
[East Millinocket EDI-CPF Contamination Summary.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Endangered Species

General requirements	ESA Legislation	Regulations
Section 7 of the Endangered Species Act (ESA) mandates that federal agencies ensure that actions that they authorize, fund, or carry out shall not jeopardize the continued existence of federally listed plants and animals or result in the adverse modification or destruction of designated critical habitat. Where their actions may affect resources protected by the ESA, agencies must consult with the Fish and Wildlife Service and/or the National Marine Fisheries Service ("FWS" and "NMFS" or "the Services").	The Endangered Species Act of 1973 (16 U.S.C. 1531 <i>et seq.</i>); particularly section 7 (16 USC 1536).	50 CFR Part 402

1. Does the project involve any activities that have the potential to affect species or habitats?

- ✓ No, the project will have No Effect due to the nature of the activities involved in the project.

This selection is only appropriate if none of the activities involved in the project have potential to affect species or habitats. Examples of actions without potential to affect listed species may include: purchasing existing buildings, completing interior renovations to existing buildings, and replacing exterior paint or siding on existing buildings.

Based on the response, the review is in compliance with this section.

No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office

Yes, the activities involved in the project have the potential to affect species and/or habitats.

Screen Summary

Compliance Determination

The USFWS IPaC system was consulted on 1-30-23. A Species List (attached) was generated and identifies four ESA-protected species (one threatened, two endangered, and one candidate species) in the action area. No Critical Habitats were identified in the action area. A No Effect determination was made because the project involves only interior and exterior renovations to existing buildings. This project will have No Effect on listed species due to the nature of the activities involved in the project. This project is in compliance with the Endangered Species Act.

Supporting documentation

[Species List_Maine Ecological Services Field Office.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Explosive and Flammable Hazards

General requirements	Legislation	Regulation
HUD-assisted projects must meet Acceptable Separation Distance (ASD) requirements to protect them from explosive and flammable hazards.	N/A	24 CFR Part 51 Subpart C

1. Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?

✓ No

Yes

2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?

No

✓ Yes

3. Within 1 mile of the project site, are there any current or planned stationary aboveground storage containers that are covered by 24 CFR 51C? Containers that are NOT covered under the regulation include:

- Containers 100 gallons or less in capacity, containing common liquid industrial fuels OR
- Containers of liquified petroleum gas (LPG) or propane with a water volume capacity of 1,000 gallons or less that meet the requirements of the 2017 or later version of National Fire Protection Association (NFPA) Code 58.

If all containers within the search area fit the above criteria, answer "No." For any other type of aboveground storage container within the search area that holds one of the flammable or explosive materials listed in Appendix I of 24 CFR part 51 subpart C, answer "Yes."

No

✓ Yes

4. Based on the analysis, is the proposed HUD-assisted project located at or beyond the required separation distance from all covered tanks?

✓ Yes

Based on the response, the review is in compliance with this section.

No

Screen Summary

Compliance Determination

Though the projects do not increase residential density (structures are not residential), but the project involves converting uninhabitable buildings into habitable buildings, and the HUD Environmental Officer stated that compliance with the Explosive and Flammable hazards is required. Stationary aboveground storage containers containing applicable common industrial fuels were identified within 1 mile of the project site, as determined by a thorough stepwise review of local/regional explosive and flammable hazards resources. First, Stillwater Environmental Engineering (SEE) accessed State online resources for information: The Maine Department of Environmental Protection (DEP) Registered Petroleum Tanks Database and the Maine DEP TankSmart database were consulted. One AST registered with the State of Maine as "planned," a 500 gallon diesel tank, was identified within the 1-mile project radius. This tank's planned location is 1500 ft. from the project area, well beyond the calculated ASDPPU of 207.20 ft. and ASDBPU of 36.50 ft. (see attached ASD tool calculations). To identify permitted propane tanks, SEE consulted the State of Maine Regulatory Licensing & Permitting online search. No permitted propane tanks were identified within 1 mile of the project site. Prior to the online searches, on 2/7/23, the Maine Fire Marshal's Office (FMO) was consulted to obtain information about the presence/absence of any permitted ASTs, and the Maine Fuel Board (MFB) was consulted regarding any registered propane tanks. The response from the FMO indicated that all registered ASTs are found on the TankSmart database, by doing a search for specific addresses/locations (as was completed in the previous step). The MFB confirmed that no permitted tanks were in the area and clarified that permitted sites are those with more than four 1,000 gallon propane tanks, or with one or more 2,000 gallon tanks on site. Email correspondence between SEE and these two agencies is attached. Third, SEE consulted the property/project manager by phone to ask about the presence of aboveground tanks. He mentioned recently installed propane tanks and an out of service aboveground "Bunker C" tank. Two 1,000 gallon propane tanks were installed in 2021 for heating the Paper Warehouse building. Tank sizes were confirmed during a site visit conducted by SEE on 3/2/23. Propane tanks of 1,000 gallons or less, such as those identified on site, are not covered by 24 CFR Part 51 Subpart C requirements, because the State of Maine has adopted the NFPA 58: Liquefied Petroleum Gas Code (2020 Edition). The Bunker C (#6 fuel) tank is a 750,000 gallon AST located 700 feet northwest of the project area. This tank is out of service and no longer stores Bunker C, and will be removed in the near future as part of the site remediation process that is underway.

Bunker C is not on the list of specific petroleum products and chemicals defined to be hazardous substances in Appendix I of 24 CFR part 51 subpart C, and for these reasons the tank does not constitute a thermal radiation nor blast overpressure hazard. Lastly, a review of Google Earth images (9/16/2022) and a site visit on 3/2/23 revealed no additional visible aboveground tanks within 1 mile of the project site, not already accounted for. Based on this review, the project is in compliance with explosive and flammable hazard requirements. Supporting documentation: * Map of tank locations within 1 mile of the East Millinocket CPF projects. * TankSmart database list, search conducted on 2/16/23 for registered tanks in East Millinocket. Highlighted rows correspond to labels on the map. * ASD calculation tool output for the planned 500 gallon AST. * Photos of the propane tanks. * Email correspondence with the Maine Fire Marshal's Office and the Maine Fuel Board on 2/8/23 about the existence of ASTs and propane tanks in East Millinocket.

Supporting documentation

[Propane-2 EastMill030223.jpg](#)
[Propane-1 EastMill030223.jpg](#)
[ASD-KRHEC-emails re ASTs and propane.pdf](#)
[ASD tool calcs.pdf](#)
[EastMill Tank List 2-16-23.pdf](#)
[EastMill AST 1-mile map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Farmlands Protection

General requirements	Legislation	Regulation
The Farmland Protection Policy Act (FPPA) discourages federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658

1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?

Yes

✓ No

If your project includes new construction, acquisition of undeveloped land or conversion, explain how you determined that agricultural land would not be converted:

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The project is in compliance with the Farmland Protection Policy Act.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

No

Floodplain Management

General Requirements	Legislation	Regulation
Executive Order 11988, Floodplain Management, requires federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable.	Executive Order 11988	24 CFR 55

1. Do any of the following exemptions apply? Select the applicable citation? [only one selection possible]

55.12(c)(3)

55.12(c)(4)

55.12(c)(5)

55.12(c)(6)

55.12(c)(7)

55.12(c)(8)

55.12(c)(9)

55.12(c)(10)

55.12(c)(11)

☒ None of the above

2. Upload a FEMA/FIRM map showing the site here:

[East Millinocket FIRM map+Project Area.pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use **the best available information** to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site.

Does your project occur in a floodplain?

☒ No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

This project does not occur in a floodplain. The project is in compliance with Executive Order 11988. The most current FEMA FIRM map for the Town of East Millinocket (Community # 230163B) was obtained from the online FEMA Flood Map Service Center. The flood map for the selected area was effective on 02/04/1987, with no revisions or amendments as of the date of access, 1/24/23. Floodplain designations found on Map -05 indicate that the project area is within Zone C, which is not a designated floodplain category.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

No

Historic Preservation

General requirements	Legislation	Regulation
Regulations under Section 106 of the National Historic Preservation Act (NHPA) require a consultative process to identify historic properties, assess project impacts on them, and avoid, minimize, or mitigate adverse effects	Section 106 of the National Historic Preservation Act (16 U.S.C. 470f)	36 CFR 800 "Protection of Historic Properties" https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf

Threshold

Is Section 106 review required for your project?

No, because the project consists solely of activities listed as exempt in a Programmatic Agreement (PA). (See the PA Database to find applicable PAs.)

- ✓ No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].
- Yes, because the project includes activities with potential to cause effects (direct or indirect).

Threshold (b). Document and upload the memo or explanation/justification of the other determination below:

The Maine Historic Preservation Commission (MHPC) has determined that there will be no historic properties affected by the proposed projects, and no further Section 106 consultation is required. See SHPO request and determination letter attached. The projects do not involve any types of activities that may affect historic properties of religious and cultural significance, for which Tribal consultation is required under Section 106. See attached Tribal Consultation Checklist.

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

Based on the project description and SHPO review, the project has No Potential to Cause Effects. The project is in compliance with Section 106.

Supporting documentation

[EMillinocket MHPC Review Request 1-24-23.pdf](#)

[EMillinocket MHPC Review 2-2-23.pdf](#)

[Tribal Consultation Checklist - East Millinocket 2-6-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Noise Abatement and Control

General requirements	Legislation	Regulation
HUD's noise regulations protect residential properties from excessive noise exposure. HUD encourages mitigation as appropriate.	Noise Control Act of 1972 General Services Administration Federal Management Circular 75-2: "Compatible Land Uses at Federal Airfields"	Title 24 CFR 51 Subpart B

1. What activities does your project involve? Check all that apply:

New construction for residential use

Rehabilitation of an existing residential property

A research demonstration project which does not result in new construction or reconstruction

An interstate land sales registration

Any timely emergency assistance under disaster assistance provision or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster

✓ None of the above

Screen Summary

Compliance Determination

Based on the project description, this project includes no activities that would require further evaluation under HUD's noise regulation. The project is in compliance with HUD's Noise regulation.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

No

Sole Source Aquifers

General requirements	Legislation	Regulation
The Safe Drinking Water Act of 1974 protects drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health.	Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300f et seq., and 21 U.S.C. 349)	40 CFR Part 149

1. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

✓ Yes

Based on the response, the review is in compliance with this section.

No

Screen Summary

Compliance Determination

Based on the project description, the project consists of activities that are unlikely to have an adverse impact on groundwater resources. The project is in compliance with Sole Source Aquifer requirements. In addition, the project site is not located on or near, nor will the project impact, any mapped sole source aquifer or significant sand and gravel aquifers. See attachments showing locations of sole source aquifers on islands off the Maine coast, and locations of significant sand and gravel aquifers in the relevant portion of East Millinocket.

Supporting documentation

[Sole-Source-Aquifers Map-EastMill 1-25-23.pdf](#)

[Significant sand and gravel aquifers Medunkeunk Lake quad.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Wetlands Protection

General requirements	Legislation	Regulation
Executive Order 11990 discourages direct or indirect support of new construction impacting wetlands wherever there is a practicable alternative. The Fish and Wildlife Service's National Wetlands Inventory can be used as a primary screening tool, but observed or known wetlands not indicated on NWI maps must also be processed Off-site impacts that result in draining, impounding, or destroying wetlands must also be processed.	Executive Order 11990	24 CFR 55.20 can be used for general guidance regarding the 8 Step Process.

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance? The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order

✓ No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

The project is within an existing industrial complex and will not impact on- or off-site wetlands. Based on the project description this project includes no activities that would require further evaluation under this section. The project is in compliance with Executive Order 11990.

Wetlands near the project site were mapped using the National Wetlands Inventory (NWI) layer on the NEPAassist mapping tool, and there are no indications of wetlands directly within the project area. The Penobscot River (West branch) is located approximately 500 feet to the south of the project work area, and will not be impacted by the project maintenance/rehabilitation activities. See attached wetlands map.

Supporting documentation

[Wetlands Map - EastMill 1-30-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Wild and Scenic Rivers Act

General requirements	Legislation	Regulation
The Wild and Scenic Rivers Act provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS) from the effects of construction or development.	The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c))	36 CFR Part 297

1. Is your project within proximity of a NWSRS river?

✓ No

Yes, the project is in proximity of a Designated Wild and Scenic River or Study Wild and Scenic River.

Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.

Screen Summary

Compliance Determination

This project is not within proximity of a NWSRS river. The project is in compliance with the Wild and Scenic Rivers Act. The nearest designated Wild and Scenic River is the Allagash River, more than 40 miles to the northwest of the project location, and shown on the accompanying map.

Supporting documentation

[WildScenicRivers - EastMill 1-30-23.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Environmental Justice

General requirements	Legislation	Regulation
Determine if the project creates adverse environmental impacts upon a low-income or minority community. If it does, engage the community in meaningful participation about mitigating the impacts or move the project.	Executive Order 12898	

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?

Yes

✓ No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

No adverse environmental impacts were identified in the project's total environmental review. The project is in compliance with Executive Order 12898. The project will have a positive impact on the region's low-income community by contributing to redevelopment efforts and re-use of assets that are in place at the former East Millinocket mill site. The redevelopment projects are intended to facilitate economic development in a region with a high level of unemployment following the 2014 closure of the GNP Paper Mill, and a Town (East Millinocket) that is a designated Opportunity Zone. Site redevelopment contributes to regional revitalization, as described in the 2020 Katahdin Region Comprehensive Plan for Millinocket, East Millinocket, and Medway, Maine (p. 119).

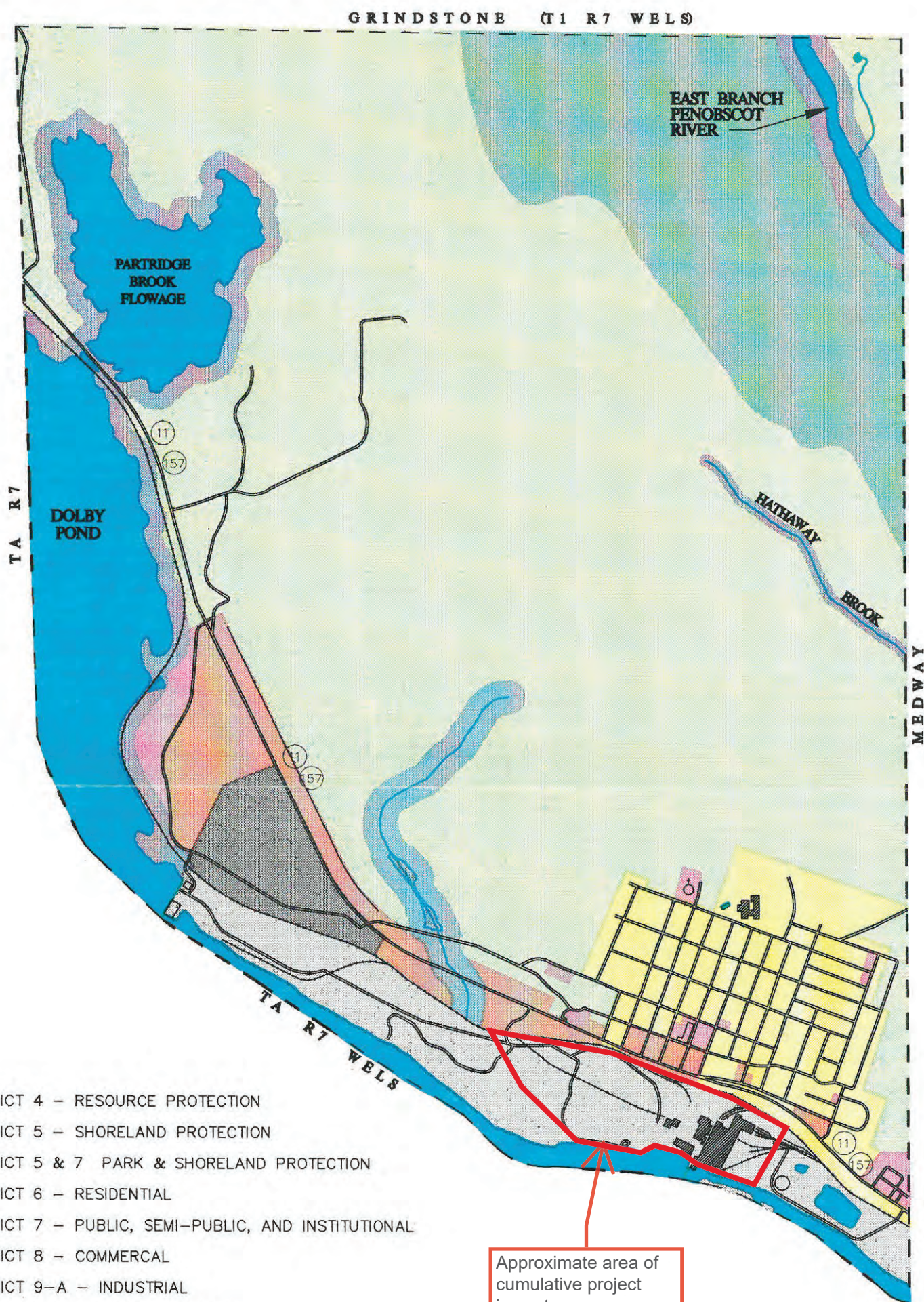
Supporting documentation

[Katahdin Region 2020.pdf](#)
[ejscreen_report.pdf](#)
[demographics_acs2020_report.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No



LEGEND:

-  DISTRICT 4 - RESOURCE PROTECTION
-  DISTRICT 5 - SHORELAND PROTECTION
-  DISTRICT 5 & 7 PARK & SHORELAND PROTECTION
-  DISTRICT 6 - RESIDENTIAL
-  DISTRICT 7 - PUBLIC, SEMI-PUBLIC, AND INSTITUTIONAL
-  DISTRICT 8 - COMMERCIAL
-  DISTRICT 9-A - INDUSTRIAL
-  DISTRICT 9-B - INDUSTRIAL PARK
-  DISTRICT 10 - RURAL
-  WATERBODIES
-  RAILROAD TRACKS

SOURCES:

UNITED STATES GEOLOGICAL SURVEY TOPOGRAPHIC QUADRANGLES
MEDUNKEUNK LAKE, AND EAST MILLINOCKET MAINE AT 1:24,000

*Adopted 5-19-92 See also Appendix C
of ordinance*

PREPARED BY:



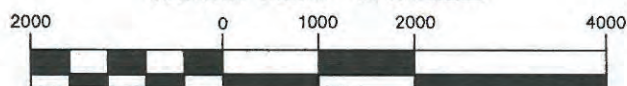
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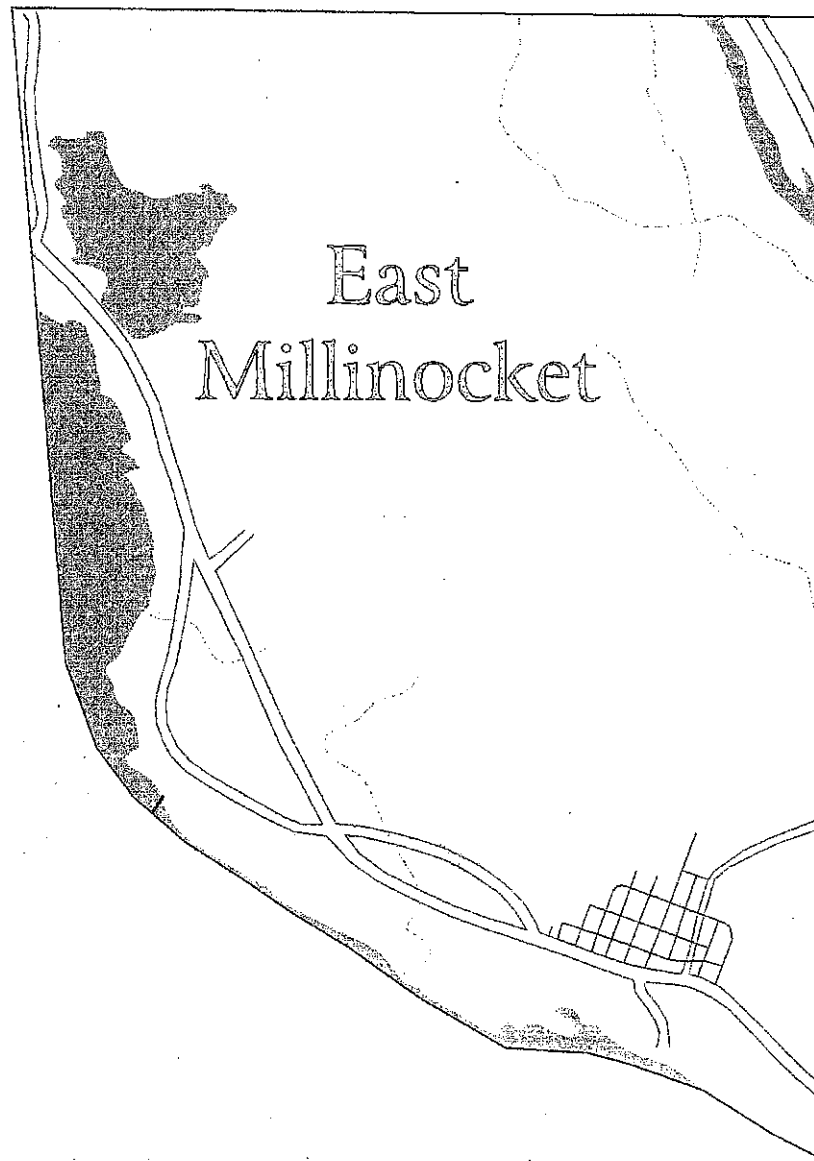
TOWN OF EAST MILLINOCKET ZONING MAP

PENOBSCOT COUNTY
EAST MILLINOCKET, MAINE

GRAPHIC SCALE



East Millinocket Land Use Ordinance



Prepared by
Penobscot Valley Council of Governments

TOWN OF EAST MILLINOCKET LAND USE ORDINANCE

LAND USE ORDINANCE COMMITTEE

Anthony Moscone
Carolyn Bouchard
James McLean
Fred Moore, Jr.
Heather Ackley
Charles Theriault
John Miner

*Enacted: May 19, 1997
Article 18*

**TOWN OF EAST MILLINOCKET
LAND USE ORDINANCE**

Land Use Ordinance of the Town of East Millinocket

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APPENDIX A

METES AND BOUNDS DESCRIPTIONS OF LAND USE DISTRICTS

OFFICIAL ZONING MAP OF THE TOWN OF EAST MILLINOCKET

Land Use Ordinance of the Town of East Millinocket

SECTION I: GENERAL PROVISIONS

A. TITLE

This Ordinance shall be known as and may be cited as the "Land Use Ordinance of the Town of East Millinocket, Maine", and will be referred to herein as the "Ordinance".

B. AUTHORITY

This Ordinance is adopted pursuant to Home Rule Powers as provided for in Article VIII of the Maine Constitution and Title 30-A, Section 4352 and Title 38, Section 435 et. seq., of the Maine Revised Statutes Annotated.

C. PURPOSES

The purposes of the Ordinance are as follows:

1. **COMPREHENSIVE PLAN IMPLEMENTATION:** To implement the policies and recommendations of the East Millinocket Comprehensive Plan;
2. **PROTECTION OF THE GENERAL WELFARE:** To assure the comfort, convenience, safety, health, and welfare of the present and future inhabitants of the Town of East Millinocket;
3. **PRESERVATION OF THE TOWN CHARACTER:** To preserve and protect the character of East Millinocket by dividing the Town into districts according to the use of land and buildings and the intensity of such uses;
4. **PROTECTION OF THE ENVIRONMENT:** To protect and enhance the natural, cultural, and historic resources of the Town from unacceptable adverse impacts and to integrate new development harmoniously into the Town's natural environment;
5. **PROMOTION OF COMMUNITY DEVELOPMENT:** To promote the development of an economically sound and stable community;
6. **REDUCTION OF TRAFFIC CONGESTION:** To lessen the danger and congestion of traffic on roads and highways, limit excessive numbers of intersections, driveways, and other friction points, minimize hazards, and ensure the continued usefulness of all elements of the existing transportation systems for their planned function;

Land Use Ordinance of the Town of East Millinocket

SECTION I: GENERAL PROVISIONS (Continued)

C. PURPOSES (Continued)

7. **BALANCING OF PROPERTY RIGHTS:** To protect property rights and values by balancing the rights of landowners to use their land with the corresponding rights of abutting and neighboring landowners to enjoy their property without undue disturbance from abutting or neighboring uses;
8. **REDUCTION OF FISCAL IMPACT:** To provide a means of evaluating development proposals to determine their fiscal impacts on the municipality's ability to provide and improve necessary public facilities and services; and
9. **ESTABLISHMENT OF PROCEDURES/STANDARDS:** To establish procedures whereby the Town Officials may review the developments regulated by this Ordinance by providing fair and reasonable standards for evaluating such developments; to provide a public hearing process through which interested persons may raise questions and receive answers regarding how such developments may affect them; and to provide procedures whereby aggrieved parties may appeal decisions made under this Ordinance.

D. APPLICABILITY

This Ordinance shall apply to all land areas within the Town of East Millinocket. All buildings or structures thereafter constructed, reconstructed, altered, enlarged, or moved, and the uses of buildings and land, including the division of land, shall be in conformity with the provisions of the Ordinance. No existing or future building, structure, or land area shall be used for any purpose or in any manner except as provided for in this Ordinance.

E. CONFLICT WITH OTHER ORDINANCES

Whenever the requirements of this Ordinance are in conflict with the requirements of any other lawfully adopted rule, regulation, ordinance, deed restriction or covenant, that imposing the most restrictive or higher standards shall govern.

F. SEVERABILITY

In the event that any Section, Sub-Section, or provision of this Ordinance shall be declared by a court of competent jurisdiction to be invalid for any reason, such decision shall not be deemed to affect the validity of any other Section, Sub-Section, or provision of this Ordinance, to this end, the provisions of this Ordinance are hereby declared to be severable.

Land Use Ordinance of the Town of East Millinocket

SECTION I: GENERAL PROVISIONS (Continued)

G. AMENDMENTS TO ORDINANCE AND OFFICIAL ZONING MAP

The process for amending the Ordinance and Official Zoning Map is as follows:

1. INITIATION: A proposal to amend this Ordinance or the Official Zoning Map may be initiated by:
 - a. The Planning Board, by majority vote;
 - b. The Town Selectpersons, through a request to the Planning Board; and by
 - c. The Public, through written petition to the Planning Board, who shall meet with the petitioners within 30 days to discuss and vote on the merits of said petition. Following a majority vote of the Planning Board, said amendment shall be initiated.
2. PROCESS OF ADOPTION: The process to be followed in adopting an amendment to the Ordinance or the Official Zoning Map is as follows:
 - a. Proposed amendments must first be submitted to the Planning Board for their consideration;
 - b. The Planning Board shall, within thirty (30) days of receiving a proposed amendment, set a date to hold a public hearing on the proposed amendment. The public hearing on the proposed amendment must be held at least thirty (30) days prior to the regular or special town meeting;
 - c. Notice of the public hearing shall be posted at least ten (10) days in advance of the hearing in three conspicuous places, one of which must be in a newspaper of general circulation in the area. Said notice shall include, but not be limited to the following information: (a) date, time and place of said hearing; (b) a summary or map (when indicated) of the proposed amendment; (c) a list (when indicated) of the proposed conditions or restrictions;
 - d. The Planning Board shall make its official report at a Selectpersons (30) days prior to the regular or special town meeting;
 - e. Enactment of a proposed amendment shall require a majority vote at an Annual or Special Town Meeting.

Land Use Ordinance of the Town of East Millinocket

SECTION I: GENERAL PROVISIONS (Continued)

H. ANNUAL ADMINISTRATIVE REVIEW

The Code Enforcement Officer, Planning Board, and Board of Appeals each shall report annually, in the month of November, to the Town Selectpersons on their respective experience with the administration of this Ordinance during the previous year. Their reports to the Selectpersons shall include any recommended amendments they may have that would:

1. Enhance their ability to more effectively meet their respective administrative responsibilities under this Ordinance; and
2. Enhance the implementation of the purposes of this Ordinance contained in Sub-Section C, paragraphs 1 through 9, above.

Failure of any person or Board to comply with this provision shall not affect the validity or enforceability of this Ordinance in any way.

I. EFFECTIVE DATE

The effective date of this Ordinance or any amendments thereto shall be the thirtieth day following its/their adoption at a Town Meeting. A copy of the Ordinance, certified by the Town Clerk shall be on file at the Town Offices.

J. REPEAL OF PRIOR ORDINANCE

The existing Land Use Ordinance of the Town of East Millinocket, Maine, as amended, is repealed as of the effective date of this Ordinance. The adoption of this Ordinance, however, shall not affect nor prevent any pending or future prosecution of, or action to abate, any violation of the Ordinances repealed by this Section, if the violation is also a violation of this provisions of this Ordinance. It is further the intention and direction of this Section that if this Ordinance is, held to be invalid or void in its entirety, that the Ordinances repealed by this Section shall be automatically revived.

Land Use Ordinance of the Town of East Millinocket

SECTION II: NON-CONFORMING STRUCTURES, USES AND LOTS

A. BURDEN OF PROOF

The burden of establishing that any non-conforming structure, use, or lot is a legal existing non-conforming use as defined in this Ordinance shall, in all instances, be upon the owner of such non-conforming structure, use or lot and not upon the Town of East Millinocket.

B. CONVERSION TO CONFORMANCE ENCOURAGED

Owners of all existing non-conforming structures and uses shall be encouraged to convert such existing non-conforming structures and uses to conformance wherever possible and shall be required to convert to conforming status as required by this Ordinance.

C. CONTINUANCE

The use of any building, structure, or land, which is made non-conforming by reason of the enactment of this Ordinance, or which shall be made non-conforming by reason of a subsequent amendment, may be continued, subject to the following provisions:

1. EXISTING NON-CONFORMING USES OF LAND

Continuance of non-conforming uses of land shall be subject to the following provisions:

- a. No such existing non-conforming use shall be enlarged or increased, nor extended to occupy a greater area of land than that occupied at the effective date of this Ordinance, or any amendment thereto;
- b. If any such existing non-conforming use of land ceases for any reason for a period of more than twelve (12) consecutive months, any subsequent use of land shall conform to the regulations specified by this Ordinance for the district in which such land is located; and
- c. An existing non-conforming use may be moved within the boundaries of the lot provided that the Planning Board finds that the change in location on the lot is more appropriate as regards:
 1. Location and character;
 2. Fencing and screening;
 3. Landscaping, topography, and natural features;
 4. Traffic and access;
 5. Signs and lighting; and/or
 6. Potential nuisance.

Land Use Ordinance of the Town of East Millinocket

SECTION II: NON-CONFORMING STRUCTURES USES AND LOTS (Continued)

C. CONTINUANCE (Continued)

2. EXISTING NON-CONFORMING STRUCTURES

Continuance of existing non-conforming structures shall be subject to the following provisions:

- a. No such structure shall be enlarged or altered in any way that increases its non-conformity;
- b. Should any structure, exclusive of the foundation, be destroyed or damaged by any means, exclusive of planned demolition, said structures may be rebuilt on the existing foundation to the dimensions of the structure which was destroyed provided rebuilding is begun within one year; and
- c. An existing non-conforming structure may be moved within a lot in a manner which would decrease its non-conformity in terms of setback requirements, provided that the Planning Board finds that the change in location is more appropriate as regards to:
 1. Location and character;
 2. Fencing and screening;
 3. Landscaping, topography, and natural features;
 4. Traffic and access;
 5. Signs and lighting; and/or
 6. Potential nuisance.

3. EXISTING NON-CONFORMING USES OF STRUCTURES

Continuance of an existing non-conforming use of a structure shall be subject to the following provisions:

- a. No existing structure devoted to a non-conforming use shall be enlarged or extended;
- b. Any existing non-conforming use may be extended throughout any parts of a building which were manifestly arranged or designed for such use at the time of the adoption or amendment of this Ordinance, but no such uses shall be extended to occupy any land outside such building;

Land Use Ordinance of the Town of East Millinocket

SECTION II: NON-CONFORMING STRUCTURES, USES AND LOTS (Continued)

C. CONTINUANCE (Continued)

3. EXISTING NON-CONFORMING USES OF STRUCTURES (Continued)

- c. Any existing non-conforming use of a structure or premises may be changed to another non-conforming use provided that the Planning Board shall find that the proposed use is more appropriate to the district than the existing non-conforming use;
- d. If a non-conforming use of a structure or premises is superseded by a permitted use, the non-conforming use shall not thereafter be resumed;
- e. If any such non-conforming use of a structure ceases for any reason for a period of more than twelve (12) consecutive months, any subsequent use of such structure shall conform to the regulations specified by this Ordinance for the district in which such structure is located; and
- f. A structure housing an existing non-conforming use may be moved, within the lot, in a manner which would be a more appropriate location, provided that the Planning Board finds that the change in location is more appropriate as regards to:
 - 1. Location and character;
 - 2. Fencing and screening;
 - 3. Landscaping, topography, and natural features;
 - 4. Traffic and access;
 - 5. Signs and lighting; and
 - 6. Potential nuisance

4. CONSTRUCTION BEGUN PRIOR TO ORDINANCE

This Ordinance shall not require any change in the plans, construction, size, or designated use for any building, structure, or part thereof for which a completed application for a local permit has been made or a permit has been issued and upon which construction has been lawfully commenced prior to the adoption or amendment of the Ordinance. Such construction shall start within sixty (60) days after the issuance of such permit.

Land Use Ordinance of the Town of East Millinocket

SECTION II: NON-CONFORMING STRUCTURES, USES AND LOTS (Continued)

D. NON-CONFORMING LOTS OF RECORD

A single parcel of land, the legal description of which or the dimensions of which are recorded on a document or map on file with the Registry of Deeds which at the effective date of adoption or subsequent amendments of this Ordinance, does not meet the lot area or width requirements or both, of the district in which it is located, may be built upon as an existing non-conforming lot of record. Lots existing that may be contiguous with any other lot in the same ownership, must be combined to meet the provisions of this Ordinance.

E. TRANSFER OF OWNERSHIP

Ownership of land and structures which remain lawful but become non-conforming by the adoption or amendment of the Ordinance may be transferred and the new owner may continue the non-conforming uses subject to the provisions of this Ordinance.

Land Use Ordinance of the Town of East Millinocket

SECTION III: ESTABLISHMENT OF DISTRICTS

A. DISTRICTS ESTABLISHED

For the purposes of this Ordinance, the Town of East Millinocket is hereby divided into the following Districts:

1. Residential Development District (RD)
2. Commercial District (C)
3. Industrial District (ID)
4. Industrial Park District (IPD)
5. Aquifer Protection District (AP)
6. Rural District (R)

B. STANDARDS ESTABLISHING DISTRICTS

1. RESIDENTIAL DEVELOPMENT DISTRICT (RD)

- a. The purpose of the Residential Development District (RD) is to stabilize and protect the essential characteristics of a variety of housing types and housing opportunities. The District will provide for medium density residential growth in such a manner and at such locations as are compatible with existing development and the ability of the community to provide essential services and utilities.
- b. Areas designated as being the Residential Development District are illustrated on the Official Zoning Map of East Millinocket and described in the metes and bounds description in Appendix A of this Ordinance.

2. COMMERCIAL DISTRICT (C)

- a. The purpose of the Commercial District (C) is to accommodate the daily or frequent shopping needs of the citizens of East Millinocket. The District will preserve the character of the existing downtown area as the focal point of business and service activities within the service area of existing public sewer and water utilities.
- b. Areas designated as being the Commercial District are illustrated on the Official Zoning Map of East Millinocket and described in the metes and bounds description in Appendix A of this Ordinance.

Land Use Ordinance of the Town of East Millinocket

SECTION III: ESTABLISHMENT OF DISTRICTS (Continued)

B. STANDARDS ESTABLISHING DISTRICTS (Continued)

3. INDUSTRIAL DISTRICT (ID)

- a. The purpose of the Industrial District (ID) is to accommodate all industrial and large scale commercial development. This District will provide for existing industrial development and provide for a diversification from traditional industrial uses.
- b. Areas designated as being the Industrial District are illustrated on the Official Zoning Map of East Millinocket and described in the metes and bounds description in Appendix A of this Ordinance.

4. INDUSTRIAL PARK DISTRICT (IPD)

- a. The purpose of the Industrial Park District (IPD) is to identify an appropriate parcel of land which was created to provide for the development of an industrial park. The District is intended to provide an area for commercial and industrial development.
- b. Areas designated as being the Industrial Park District are illustrated on the Official Zoning Map of East Millinocket and described in the metes and bounds description in Appendix A of this Ordinance.

5. AQUIFER PROTECTION DISTRICT (AP)

- a. The purpose of the Aquifer Protection District (AP) is to protect East Millinocket's sand and gravel aquifer. This District is intended to limit development within the identified area which will ensure the protection and preservation East Millinocket's drinking water supply.
- b. Areas designated as being the Aquifer Protection District are illustrated on the Official Zoning Map of East Millinocket and described in the metes and bounds description in Appendix A of this Ordinance.

Land Use Ordinance of the Town of East Millinocket

SECTION III: ESTABLISHMENT OF DISTRICTS (Continued)

B. STANDARDS ESTABLISHING DISTRICTS (Continued)

6. RURAL DISTRICT (R)

- a. The purpose of the Rural District is to protect those areas of the community which are not appropriate for development due to their location and distance from municipal facilities and services.
- b. Areas designated as being the Rural District are illustrated on the Official Zoning Map of East Millinocket and described in the metes and bounds description in Appendix A of this Ordinance.

C. OFFICIAL ZONING MAP

Districts established by this Ordinance are defined and bounded as shown on the "Official Zoning Map of East Millinocket, Maine" which together with its notations and amendments, from time to time, is hereby made a part of this Ordinance.

The official copy of the map shall be that map which bears the certification that it is true and correct, signed by the Chairman of the Planning Board and attested by the Town Clerk, and on file in the office of the Town Clerk.

D. INTERPRETATION OF DISTRICT BOUNDARIES

Where uncertainty exists as to boundary lines of Districts as shown on the "Official Zoning Map of East Millinocket, Maine" or as described in the metes and bounds description, the following rules of interpretation shall apply:

1. Boundaries indicated as approximately following the center lines of streets, highways, public utilities or right-of-ways shall be construed as following such center lines;
2. Boundaries indicated as approximately following property lines shall be construed as following property lines;
3. Boundaries indicated as being the extension or center lines of streets shall be construed to be the extension of such center lines;
4. Boundaries indicated as being the extension of property lines shall be construed as extensions of such property lines;

Land Use Ordinance of the Town of East Millinocket

SECTION III: ESTABLISHMENT OF DISTRICTS (Continued)

D. INTERPRETATION OF DISTRICT BOUNDARIES (Continued)

5. Boundaries indicated as being parallel to or extension of features listed above shall be so construed. Distances not specifically indicated on the official map shall be determined by the metes and bounds description.
6. Where physical or cultural features existing on the ground are at variance with those shown on the official map or described in the metes and bounds description, or in other circumstances where uncertainty exists with respect to the location of a boundary, the Planning Board shall interpret the district boundaries.

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES

A. ACTIVITIES DESCRIBED

A matrix listing the uses permitted in the various Districts, under this Ordinance begins on page 15.

The various land uses contained in the matrix are organized according to the following eight (8) activity classifications:

1. Non-Commercial Recreational Activities
2. Resource Management Activities
3. Resource Extraction Activities
4. Residential Activities
5. Institutional Activities
6. Commercial Activities
7. Industrial Activities
8. Transportation and Utilities

B. SYMBOLS USED IN SCHEDULE OF USES

The following symbols contained in the Schedule of Uses have the following meanings:

1. DISTRICT SYMBOLS

SYMBOL	DESCRIPTION
RD	Residential Development District
C	Commercial District
ID	Industrial District
IPD	Industrial Park District
AP	Aquifer Protection District
R	Rural District

2. PERMIT SYMBOLS

SYMBOL	DESCRIPTION
Y	Uses Allowed Without a Permit
N	Uses Prohibited Within District
C	Use Requires a Code Enforcement Permit
P	Use Requires a Planning Board Permit

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

C. USES SUBSTANTIALLY SIMILAR TO PERMITTED USES MAY BE PERMITTED

1. **USES ALLOWED WITHOUT A PERMIT:** Uses substantially similar to those allowed without a permit, but are not listed in the Schedule of Uses, may be permitted upon a ruling by the Code Enforcement Officer that such use is substantially similar to such uses.
2. **USES REQUIRING A CODE ENFORCEMENT OFFICER PERMIT:** Uses substantially similar to those requiring a Code Enforcement Officer Permit, but which are not listed in the Schedule of Uses, may be permitted by the Code Enforcement Officer.
3. **USES REQUIRING A PLANNING BOARD PERMIT:** Uses substantially similar to those requiring a Planning Board Permit, but which are not listed in the Schedule of Uses, may be permitted by the Planning Board.

D. USES SUBSTANTIALLY SIMILAR TO PROHIBITED USES ARE PROHIBITED
Uses substantially similar to any uses listed as a Prohibited Use in the Schedule of Uses, shall be prohibited.

E. COMPLIANCE WITH PERFORMANCE STANDARDS REQUIRED

All uses permitted must occur and be maintained in compliance with the applicable requirements and performance standards contained in Section V.

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts	RD	C	ID	IPD	AP	R
1. NON-COMMERCIAL RECREATIONAL ACTIVITIES						
a) Primitive recreational uses, including fishing, hunting, hiking, snowshoeing, cross country skiing, photography, and wildlife study;	Y	Y	Y	Y	Y	Y
b) Public parks and recreation facilities;	C	C	C	C	C	C
c) Trails, provided they are constructed and maintained so as to avoid sedimentation of water bodies;	Y	Y	Y	Y	Y	Y
d) Motorized vehicular traffic on roads and trails, and snowmobiling;	Y	Y	Y	Y	Y	Y
e) Accessory uses and structures that are essential for the exercise of use listed above;	Y	Y	Y	Y	Y	Y

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

Activities/Districts		RD	C	ID	IPD	AP	R
2. RESOURCE MANAGEMENT ACTIVITIES							
a)	Wildlife/fishery management practices;	Y	Y	Y	Y	Y	Y
b)	Emergency operations conducted for the public health, safety , or general welfare, such as resource protection, law enforcement, and search and rescue operations;	Y	Y	Y	Y	Y	Y
c)	Surveying and other resource analysis;	Y	Y	Y	Y	Y	Y
d)	Forest management activities, <u>not including</u> timber harvesting, pesticide and fertilizer application;	Y	Y	Y	Y	Y	Y
e)	Agricultural management activities, <u>not including</u> pesticide and fertilizer application;	Y	Y	Y	Y	Y	Y
f)	Mineral exploration to discover or verify the existence of mineral deposits, including the removal of specimens or trace quantities, provided such exploration is accomplished by methods of hand sampling, including panning, hand test boring, diggings, and other non-mechanized methods which create minimal disturbance and take reasonable measures to restore the disturbed area to its original condition;	Y	Y	Y	Y	Y	Y
g)	Non-commercial structures for scientific, educational, or nature observation purposes, which are not of a size or nature which would adversely affect the resources protected by the district in which it is located;	Y	Y	Y	Y	Y	Y
h)	Accessory uses and structures;	Y	Y	Y	Y	Y	Y

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

Activities/Districts		RD	C	ID	IPD	AP	R
3. RESOURCE EXTRACTION ACTIVITIES							
a)	Commercial timber harvesting;	N	P	P	N	N	P
b)	Production of commercial agricultural products;	N	P	P	P	N	P
c)	Mineral extraction for road purposes only, affecting an area of less than 2 acres in size;	P	P	P	N	N	P
d)	Mineral extraction operations for any purpose affecting an area 2 acres or greater in size;	P	P	P	N	N	P
e)	Filling, grading, draining, dredging or alteration of water table or water level, not including individual wells;	P	P	P	P	N	P
f)	Accessory use and structures that are essential for the exercise of uses listed above;	P	P	P	P	N	P

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts		RD	C	ID	IPD	AP	R
4. RESIDENTIAL ACTIVITIES							
a)	Single- Family Detached Dwelling;	C	C	N	N	N	N
b)	Single-Family Mobile Homes;	C	C	N	N	N	N
c)	Multi-Family Dwelling: Duplexes;	C	C	N	N	N	N
d)	Multi-Family Dwelling: 3 or more families, including apartments;	C	C	N	N	N	N
e)	Mobile Home Park;	P	P	N	N	N	N
f)	Nursing Home/Boarding Care Facility;	C	C	N	N	N	N
g)	Home Occupations;	C	C	N	N	N	N
h)	Accessory uses or structures that are essential for the exercise of uses listed above;	C	C	N	N	N	N

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts	RD	C	ID	IPD	AP	R
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5. INSTITUTIONAL ACTIVITIES

a)	Hospital and Medical Clinic;	C	C	N	N	N	N
b)	Government Facilities and Services;	C	C	N	N	N	N
c)	Public Schools;	C	C	N	N	N	N
d)	Private Schools (under 15 students);	C	C	N	N	N	N
e)	Day Care Centers;	C	C	N	N	N	N
f)	Churches;	C	C	N	N	N	N
g)	Cemetery;	C	C	N	N	N	N
h)	Fraternal Orders and Service Clubs;	C	C	N	N	N	N
i)	Post Secondary Education Facility;	C	C	N	P	N	N
j)	Accessory use and structures that are essential for the exercise of uses listed above;	C	C	N	N	N	N

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts	RD	C	ID	IPD	AP	R
6. COMMERCIAL ACTIVITIES						
a) Automobile Supplies;	N	C	N	C	N	N
b) Automobile Body Repair;	N	C	N	C	N	N
c) Automobile Repair/Service;	N	C	N	C	N	N
d) Banks/Credit Unions;	N	C	N	N	N	N
e) Beauty Shops;	N	C	N	N	N	N
f) Burglar/Fire Alarm Sales;	N	C	N	C	N	N
g) Sporting Camps;	N	C	N	N	N	N
h) Clothing Shops;	N	C	N	N	N	N
i) Craft Shops;	N	C	N	C	N	N
j) Florist/Greenhouse;	N	C	N	C	N	N
k) Fuel Oil Sales;	N	C	N	C	N	N
l) Funeral Homes;	N	C	N	N	N	N
m) Grocery Stores;	N	C	N	N	N	N
n) Gun Shops;	N	C	N	N	N	N
o) Hardware Stores;	N	C	N	C	N	N
p) Insurance Office;	N	C	N	N	N	N
q) Professional Office/s;	N	C	N	C	N	N
r) Pharmacy;	N	C	N	N	N	N
s) Restaurant;	N	C	N	C	N	N
t) Animal Hospital/Clinic;	N	C	N	C	N	N
u) Storage Building/Area;	N	C	N	C	N	N
v) Bed and Breakfasts;	N	C	N	N	N	N

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts		RD	C	ID	IPD	AP	R
6. COMMERCIAL ACTIVITIES (Continued)							
w)	Motels, Hotels and Inns Maximum 10 Rooms, No meals Served;	P	C	N	N	N	N
x)	Motel, Hotels and Inns Maximum 25 Rooms, No meals Served;	N	P	N	N	N	N
y)	Motels, Hotels and Inns 25 or more Rooms, Serving meals to guests only;	N	P	N	N	N	N
z)	Campgrounds;	N	P	N	N	N	P
aa)	Retail Establishments of more Than 2,500 square feet, not listed Above;	N	P	N	N	N	N
bb)	Retail Establishments of less Than 2,500 square feet, not listed above;	N	C	N	N	N	N
cc)	Accessory uses and structures that are essential for the exercise of uses listed above.	P	C	N	N	N	N

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts		RD	C	ID	IPD	AP	R
7. INDUSTRIAL ACTIVITIES							
a)	Pulp Mill;	N	N	P	P	N	N
b)	Transportation Facility and Terminal Yard;	N	P	P	P	N	N
c)	Bulk Oil and Fuel Tank Storage in excess of 50 gallons except for on-site heating and cooking purposes;	N	P	P	P	N	N
d)	Automobile Junk Yard;	N	N	P	P	N	N
e)	Wholesale Business Facility;	N	P	P	P	N	N
f)	Light Manufacturing Assembly Plant;	N	P	P	P	N	N
g)	Disposal of Solid Waste;	N	P	P	P	N	N
h)	Disposal of Hazardous/Leachable Materials;	N	N	P	P	N	N
i)	Sewage Treatment Facility;	N	N	P	P	N	N
j)	Concrete Plant;	N	P	N	N	N	N
k)	Accessory uses and structures that are essential for the exercise of uses listed above;	N	C	P	P	N	N

Land Use Ordinance of the Town of East Millinocket

SECTION IV: SCHEDULE OF USES (Continued)

F. SCHEDULE OF USES

Activities/Districts		RD	C	ID	IPD	AP	R
8. TRANSPORTATION AND UTILITIES							
a)	Land management roads and water crossings of minor flowing waters;	P	P	P	P	P	P
b)	Land management roads and water crossings of standing waters and of major flowing waters;	P	P	P	P	P	P
c)	Road construction projects, other than land management roads, and not part of a project requiring a Planning Board permit;	C	P	P	P	P	P
d)	Road construction projects, other than land management roads, which are part of projects requiring Planning Board review;	P	P	P	P	P	P
e)	Minor utility facilities, including service drops;	C	C	C	P	P	P
f)	Major utility facilities, such as transmission lines, waters supply and sewage treatment facilities, but not including service drops;	C	C	C	P	P	P
g)	Airport terminal building and airport uses;	N	N	N	N	N	N
h)	Accessory uses and structures that are essential for the exercise of uses listed above;	C	C	C	C	C	C

SECTION V: LAND USE STANDARDS

SECTION USERS GUIDE: This section contains general performance standards with which all development proposals submitted for approval pursuant to this Ordinance must comply.

The purpose of the regulations contained in this section is to allow maximum utilization of land while insuring against adverse impacts on the environment, neighboring properties, and the public interest. This assurance is provided by separating the area of the Town of East Millinocket into districts and permitting specific land uses within each, provided that a use meets all the additional criteria specified in this Ordinance.

This regulatory approach has been termed "performance zoning" because it permits a use to be developed on a particular parcel only if the use on that parcel meets "performance" standards which have been enacted to insure against the use causing (or having the potential to cause) adverse impacts.

The following Land Use Standards shall govern all Land Use Permits issued by the Code Enforcement Officer and the Planning Board.

In reviewing applications submitted pursuant to this Ordinance, the Code Enforcement Officer or the Planning Board shall consider the following performance standards and make written findings that each applicable standard has been met prior to issuing final approval. In all instances the burden of proof shall be upon the applicant.

A. GENERAL STANDARDS

1. ACCESSORY USES

An accessory use shall not include any use injurious or offensive to the neighborhood as initially determined by the Code Enforcement Officer.

2. ACCESS REQUIREMENTS

All road entrances, curb cuts, and driveways shall be designed, considering land topography, street design, and existing and expected traffic patterns, so as to promote to the greatest extent possible, safe pedestrian and vehicular traffic and to protect public safety. Driveways and roads in multi-family housing projects shall be designed and laid out to provide for adequate traffic circulation and for access for emergency service vehicles to every housing unit on the premises.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

3. AGRICULTURAL MANAGEMENT ACTIVITIES

Agricultural practices shall be conducted in such a manner to prevent soil erosion, sedimentation, and contamination or nutrient enrichment of surface waters.

4. AIR POLLUTION

Air pollution control and abatement shall comply with applicable minimum Federal and State requirements.

5. BUFFERS

Buffer strips may be required for the following areas and/or purposes:

a. Along the property line where the reviewing authority (Code Enforcement Officer or Planning Board) determines it desirable and necessary to:

1. Shield incompatible uses from one another;
2. Block prevailing winds to stop wind borne debris;
3. Prevent lighting from interfering with residential properties or with safe driving.

b. Along any property line, where the reviewing authority determines it desirable and necessary, of all exposed storage areas, sand and gravel extraction operations, utility buildings and structures, automobile salvage and junkyards, parking areas, garbage collection areas, and loading and unloading areas, to minimize their visual impact on adjoining traveled ways and properties.

6. CAMPGROUNDS

All campgrounds shall conform to the following provisions:

a. Recreational vehicle and tenting areas containing approved water-carried sewage facilities shall meet the following criteria:

1. Each recreational vehicle, tent, or shelter site shall contain a minimum of 5,000 square feet, not including roads and driveways;
2. A minimum of 200 square feet of off-street parking plus maneuvering space shall be provided for each recreational vehicle, tent, or shelter site.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

6. CAMPGROUNDS (cont.)

3. Each recreational vehicle, tent, or shelter site shall be provided with suitable means of trash disposal.
- b. Wilderness recreational areas without water-carried sewage facilities shall contain a minimum of 20,000 square feet, not including roads and driveways, for each recreation vehicle, tent or shelter site.
- c. The area intended for placement for the recreational vehicle, tent, or shelter shall be setback a minimum of 75 feet from the exterior lot lines of the camping area.
- d. All campgrounds shall be screened from adjacent land areas by a continuous landscaped areas not less than 25 feet in width containing evergreen shrubs, trees, fences, walls or any combination which forms an effective visual barrier of not less than six (6) feet in height.

7. CONFORMANCE WITH COMPREHENSIVE PLAN

All proposed developments shall be in conformity with the Comprehensive Plan and Policy Statements of the Town and with the provisions of all pertinent local ordinances and regulations, State and Federal laws and regulations.

8. CONSTRUCTION IN FLOOD HAZARD AREAS

When any part of a development is located in a Flood Hazard Area as identified by the Federal Emergency Management Agency, and locally adopted Floodplain Management Ordinance, the plan shall indicate that all principal structures on lots in the development shall be constructed with their lowest floor, including the basement, at least one foot above the 100-year flood evaluation.

9. CONVERSIONS

Conversions of existing structures into multi-family units, in Districts permitting multi-family dwellings, may be permitted provided that:

- a. Off-street parking for two (2) vehicles per dwelling unit plus maneuvering space will be provided;
- b. Approval of conversion plans by the fire, electrical, and plumbing inspector(s) is required prior to issuance of a land use permit;

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

9. CONVERSIONS (cont.)
 - c. Each dwelling unit shall be at least three hundred (350) square feet in area for one (1) bedroom units plus one-hundred and fifty (150) square feet for each additional bedroom; and
 - d. Each dwelling unit shall have its own toilet and kitchen facilities and no dwelling unit will share these facilities with any other dwelling unit.
10. DUST, FUMES, VAPORS, GASES, ODORS, GLARE, AND EXPLOSIVE MATERIALS
 - a. Emission of odors, dust, dirt, fly ash, fumes, vapors or gases which could damage human health, animals, vegetation, or property must comply with State and Federal standards.
 - b. No land use or establishment shall be permitted to produce a strong, dazzling light or reflection of that light beyond its lot lines into neighboring properties or onto any town way so as to impair the vision of the driver of any vehicle upon that town way; and
 - c. No highly flammable or explosive liquids, solids, or gases shall be stored in bulk above ground, unless they are stored in compliance with the requirements of the National Fire Protection Association (NFPA), Section 30, 58 and 59A.
11. EROSION AND SEDIMENTATION CONTROLS

The following measures relating to conservation, erosion, and sediment control shall be included where applicable as part of all projects submitted for review and approval under this Ordinance.

 - a. The procedures outlined in the erosion and sedimentation control plan, prepared and submitted by the applicant, shall be implemented during the site preparation, construction, and clean-up stages; and
 - b. Erosion of soil and sedimentation of watercourses and water bodies shall be minimized by employing the following best management practices:
 - (1) Stripping of vegetation, soil removal and re-grading or other development shall be done in such a way as to minimize erosion;

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

11. EROSION AND SEDIMENTATION CONTROLS (cont.)

- (2) Development shall preserve outstanding natural features, keep cut-fill operations to a minimum and ensure conformity with topography so as to create the least erosion potential and adequately handle the volume and velocity of surface water runoff;
- (3) The development shall not unreasonably increase the rate or volume of surface water runoff from the proposed site;
- (4) Whenever feasible, natural vegetation shall be retained, protected and supplemented;
- (5) The disturbed area and the duration of exposure shall be kept to a practical minimum;
- (6) Disturbed soils shall be stabilized as quickly as practicable;
- (7) Temporary vegetation or mulching shall be used to protect disturbed areas during development;
- (8) Permanent (final) vegetation and mechanical erosion control measures in accordance with the Department of Environmental Protection's Best Management Practices or the Maine Soil and Water Conservation Commission shall be installed as soon as practicable after construction ends;
- (9) Until the disturbed area is stabilized, sediment in the runoff water shall be trapped by the use of debris basins, sediment basins, silt traps or other acceptable methods;
- (10) The top of the cut or the bottom of a fill section shall not be closer than ten (10) feet to an adjacent property, unless otherwise specified by the Planning Board. Extraction operations (gravel pits, etc.) shall not be permitted within one hundred (100) feet of any property lines.
- (11) During grading operations, methods of dust control shall be employed wherever practicable.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

11. EROSION AND SEDIMENTATION CONTROLS (cont.)

- (12) Whenever sedimentation is caused by stripping vegetation, regrading or other development, it shall be the responsibility of the developer causing such sedimentation to remove it from all adjoining surfaces, drainage systems and watercourses and to repair any damage at his expense as quickly as possible;
- (13) Maintenance of drainage facilities or watercourses originating and completely on private property is the responsibility of the owner to the point of open discharge at the property line or at a communal watercourse within the property.

12. HOME OCCUPATIONS

- a. The purpose of the Home Occupation provision is to permit the conduct of those businesses which are compatible with the Districts in which they are allowed. Home occupations are limited to those uses which may be conducted within a residential dwelling without substantially changing the appearance or condition of the residence or accessory structure;
- b. Any home occupation or profession which is accessory to and compatible with a residential use may be permitted if:
 - (1) It is carried out in a dwelling unit or in a structure customarily accessory to a dwelling unit;
 - (2) It is conducted by a member or members of the family residing in the dwelling unit; and
 - (3) It does not materially injure the usefulness of the dwelling unit or accessory structure for normal residential purposes.
- c. All home occupations shall conform with the following conditions:
 - (1) The home occupation shall be carried on wholly within the dwelling or accessory structure;
 - (2) The home occupation shall be conducted by a member or members of the family residing in the dwelling unit;

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

12. HOME OCCUPATIONS (cont.)

- (3) There shall be no exterior display, no exterior signs other than those permitted in Section V, no exterior storage of materials, and no other exterior indication of the home occupation or variation from the residential character of the principal building;
- (4) Objectionable conditions such as noise, vibration, smoke, dust, electrical disturbance, odors, heat, glare, or activity at unreasonable hours, shall not be permitted;
- (5) The traffic generated by such home occupation shall not increase the volume of traffic so as to create a traffic hazard or disturb the residential character of the immediate neighborhood;
- (6) In addition to the off-street parking provided to meet the normal requirements of the dwelling, adequate off-street parking shall be provided for the vehicles of the maximum number of users the home occupation may attract during peak operating hours;
- (7) The home occupation may utilize:
 - a. Not more than twenty (20%) percent of the dwelling unit floor area, provided that for the purpose of this calculation, unfinished basement and attic spaces are not included;
 - b. Unfinished attic and basement spaces; and
 - c. One accessory structure. The floor area utilized in the accessory structure shall not exceed fifty percent (50%) of the total floor area of the dwelling unit.
- (8) The Code Enforcement Officer shall refer any inquiries for a land use permit for a home occupation to the Board of Appeals if, in his opinion, there is any doubt as to whether the proposed use fails to meet any of the requirements; and
- (9) Home occupations which involve use or storage of hazardous or leachable materials in excess of normal residential use are not permitted.
- (10) Home occupations which are pre-existing this ordinance and are non-conforming by definition above, may not physically expand and may not be altered. from one type of occupation, profession,

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

12. HOME OCCUPATIONS (cont.)

or business to another unless it subsequently conforms to the above requirements.

13. INDUSTRIAL PERFORMANCE STANDARDS

The following provisions shall apply to all permitted industrial uses:

a. Danger

No material which is dangerous due to explosion, extreme fire hazard, chemical hazard or radioactivity shall be used, stored, manufactured, processed or assembled except in accordance with applicable State and Federal codes and regulations.

b. Vibration

With the exception of vibration necessarily involved in the construction or demolition of buildings, no vibration shall be transmitted outside the lot where it originates.

c. Wastes

No offensive wastes shall be discharged or dumped into any river, stream, watercourse, storm drain, pond, lake, or swamp. Industrial waste water may be discharged to municipal sewers only and in such quantities and quality as to be compatible with commonly accepted municipal sewage treatment operations subject to the approval of the appropriate entity. The disposal of industrial waste waters by means other than the municipal sewage system must comply with the laws of the State of Maine; and

d. Those standards of Subsection 9 of this Section regarding Dust, Fumes, Vapors, Gases, Odors, Glare and Explosive Materials.

14. JUNKYARDS

No junkyard as defined in this Ordinance shall be established, operated or maintained without first obtaining a non-transferable land use permit issued in accordance with State licensing and local requirements, and the following provisions:

a. Junkyards shall be located a minimum of two hundred (200) feet from the edge of the right-of-ways; and shall be setback one hundred (100) feet from all side and rear lot lines;

b. Junkyards shall be located a minimum of three hundred (300) feet from any public park, facility, or grounds; and

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

14. JUNKYARDS (cont.)

- c. Junkyards shall be entirely screened from view by earth berms or fences which shall be well constructed and properly maintained at a minimum height of six (6) feet and sufficient to accomplish the complete screening from ordinary view.

In addition, the following provisions apply to the operation of junkyards, as defined, in the Town of East Millinocket.

- d. Upon arrival at the junkyard, all petroleum and other hazardous fluids shall be drained from all vehicles, and appropriate safety precautions, such as the removal of door and trunk locks, shall be taken to avoid injury and accidents;
- e. Tires shall be removed and disposed of within 60 days at a duly licensed disposal or transfer facility. Proof of disposal shall be provided to the Code Enforcement Officer upon request.
- f. The complete processing of vehicles into salvage materials shall be accomplished within six (6) months;
- g. All junk and salvage materials shall be stored within the screened/fenced areas and the operation shall be conducted in such a manner as to prevent unsightliness to the adjacent area;
- h. No open burning of salvage materials or junk shall be permitted on the premises. Waste fluids and unusable materials shall be disposed of in a duly licensed disposal facility.
- i. The Planning Board and/or Code Enforcement Officer may recommend the application of more stringent restrictions and/or limitations, and stipulate reasonable conditions which shall be attached to the permit covering the operation and use of the junkyard prior to the Selectpersons issuance of the permit.

15. LIGHTING DESIGN STANDARDS

All exterior lighting shall be designed to minimize adverse impact on neighboring properties.

16. LOT SIZE, SETBACK AND COVERAGE REQUIREMENTS

See B. Dimensional Requirements in this Section

Land Use Ordinance of the Town of East Millinocket
SECTION V: LAND USE STANDARDS (Continued)

17. MANUFACTURED HOUSING

- a. Intent: It is the intent of this Ordinance to provide a variety of housing alternatives to all economic levels within the community, while continuing to insure the minimum standards of health, safety and welfare of the community. To this end, this ordinance allows the siting of all types of manufactured housing within designated areas of the Town regardless of their construction date or compliance with all the standards of the Manufactured Home and Construction Safety Standards of the Department of Housing and Urban Development, adopted in 1975. The Town does hereby require however, that all manufactured housing sited within the Town of East Millinocket meet certain minimum safety and design criteria:
- b. Minimum Safety Standards: All manufactured housing as defined in this ordinance, regardless of date of manufacture, and sited within the Town of East Millinocket after the effective date of this ordinance, shall meet or exceed the following minimum standards before a "Certificate of Occupancy" shall be issued by the Code Enforcement Officer in conformance with Section VI. H of this Ordinance.
- c. HUD Approval Sufficient: All manufactured houses constructed after 1975 and bearing the seal of the Department of Housing and Urban Development which certifies the Manufactured Home was built pursuant to the provisions of the Manufactured Homes Construction and Safety Standards as revised shall be deemed to have fulfilled the requirements of this section.
- d. Minimum Electrical Safety Standards: All manufactured housing shall meet the following minimum safety requirements for electrical installation and maintenance as provided for by the National Electrical Code as said code pertains to the following:
 - (1) 100 Ampere Entrance required;
 - (2) Copper wiring required;
 - (3) Two means of grounding required;
 - (4) Ground faulting receptacles required.

In addition, all electrical installation or modifications to existing manufactured housing shall be inspected by and certified by an electrician licensed by the State of Maine or the Municipal Code Enforcement Officer if duly appointed as electrical inspector.

- e. Minimum Fire Prevention Standards: All manufactured housing shall meet the following minimum fire safety requirements as provided for by

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

the National Electrical Code and the Manufactured Housing Construction Standards of 1975 established by the Department of Housing and Urban Development (HUD).

17. MANUFACTURED HOUSING (cont.)

- (1) All homes shall contain at least one operable fire extinguisher which is readily accessible at all times;
 - (2) All homes shall have at least one operable AC smoke detector centrally located within the home and one operable smoke detector in each of the bedrooms;
 - (3) The installation and maintenance of all heating systems including vents, chimneys, and encompassing secondary and tertiary as well as primary heating sources, shall meet the standards of NFPA 211. In addition, no wood stove shall be used for heating purposes in a manufactured home in the Town of East Millinocket without first being inspected and approved by the East Millinocket Fire Department for safe installation;
 - (4) All automatic dryers, whether electric or gas, must meet the venting requirements of the Manufactured Home Construction Standards of 1975 as established by HUD; and;
 - (5) All manufactured homes must meet the egress requirements of the Manufactured Home Construction Standards of HUD, to wit, all manufactured homes shall provide for at least two means of egress from each bedroom, one of which must be directly to the outside of the home and may be accomplished by way of a window of suitable size which can be opened easily without tools, and two doors exiting directly to the outside of the home separated by distances as established by the standards.
- f. Minimum Plumbing Standards: All manufactured housing shall meet the minimum standards of the Maine Plumbing Code as amended.
- g. Minimum Design Standards: All manufactured housing will be sited and maintained in such a manner as to blend harmoniously with other residential structures in close proximity, to this end all manufactured housing located within the Town of East Millinocket after the effective date of this ordinance shall:

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

17. MANUFACTURED HOUSING (cont.)

- (1) Have and maintain external siding which is residential in appearance for the manufactured home as well as any additions thereto or accessory structures located on the same lot;
- (2) Be located on a permanent foundation.;
- (3) Provide a safe means of egress and ingress to and from the manufactured home including stairs with handrails when applicable.

18. MINERAL EXPLORATION AND EXTRACTION

The following requirements for mineral exploration and extraction activities shall apply in all Districts:

- (1) All exploration/extraction activities, including test pits and holes, shall be promptly capped, refilled, or secured by other equally effective measures so as to reasonably restore disturbed areas and to protect the public health and safety;
- (2) No portion of any ground area disturbed by the extraction activity shall be closer than 25 feet from an public roadway or 75 feet from any property line in the absence of the prior written agreement of the owner of such adjoining property;
- (3) Within 250 feet of any water body the extraction areas shall be protected from soil erosion by ditches, sedimentation basins, dikes, dams or such other control devices which are effective in preventing sediments from being eroded or deposited into such water body.
- (4) A natural vegetative screen of not less than 50 feet in width shall be retained from any facility intended primarily for public use, excluding privately owned roads; and
- (5) If any mineral extraction operation located within 75 feet of any property line or public roadway or facility intended primarily for public use, excluding privately owned roads, is to be terminated or suspended for a period of one year or more, the site shall be rehabilitated by grading the soil to a slope of 2 horizontal to 1 vertical, or flatter.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

19. MOBILE HOME PARK STANDARDS

Notwithstanding other provisions of this Ordinance relating to bulk, and use, the Planning Board in reviewing submitted plans for proposed mobile home parks, may modify said provisions related to space, bulk and use to permit innovative approaches to environmental design in accordance with the following standards;

- a. There shall be compliance with all State and local codes and ordinances;
- b. All utilities shall be installed underground wherever possible. All transformer boxes, substations, pumping stations, and meters as well as fixtures and other devices used in the transmission of voice, data and broadcast signals, shall be located and designed so as not to be unsightly or hazardous to the public;
- c. No mobile home shall be located closer than twenty (20) feet to a street or adjacent mobile home;
- d. All mobile home parks shall be provided with safe and convenient vehicular access from abutting public streets or roads to each mobile home lot, such access shall have a minimum of fifty (50) foot right-of-way and a twenty (20) feet road width. All park streets shall be well drained, maintained in good condition, and adequately lighted at night;
- e. Dead end streets shall be limited in length to one thousand (1000) feet and at the closed end shall be provided with a turn around having a minimum radius of sixty (60) feet;
- f. Walkways not less than two (2) feet in width shall connect each mobile home stand to a street or to a driveway connecting to a street;
- g. Off-street parking in all mobile home parks shall be furnished at the rate of at least two (2) car spaces for each mobile home. Parking spaces shall be properly graveled and shall be located at a distance not to exceed two-hundred feet from the mobile home that it is intended to serve;
- h. Mobile home stands shall provide an adequate foundation for the placement of a mobile home; such foundation shall meet the requirements of the duly adopted Building Code of East Millinocket; and
- i. All individual mobile homes shall be equipped with skirting or other type of enclosure.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

20. NOISE

Land use activities shall meet the following provisions:

a. Maximum Levels

The maximum permissible sound pressure level of any continuous, regular or frequent or intermittent source of sound produced by any activity shall be limited by the time period and land use which it abuts listed below. Sound levels shall be measured at least 4 feet above ground at the property boundary of the source.

Sound Pressure Level Limits
Using the Sound Equivalent
Level of One Minute (leq 1)
Measured in dB (a) Scale)

<u>District</u>	<u>7:a.m. - 10:p.m.</u>	<u>10:p.m. - 7:a.m.</u>
Residential	55	45
Commercial	65	55
Industrial	70	60

b. Meters

Noise shall be measured by a meter set on the A-weighted response scale, fast response. The meter shall meet the American National Standards Institute (ANSI S1 4-1961) "American Standard Specification for General Purpose Sound Level Meters".

c. Construction

No person shall engage in construction activities, on a site abutting any residential use between the hours of 10 p.m. and 7 a.m.. Otherwise, the following activities shall be exempt from these regulations:

- 1) Sounds emanating from construction and maintenance activities conducted between 7 a.m. - 10 p.m..
- 2) Sounds emanating from safety signals, warning devices, emergency pressure relief valves and other emergency activities.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

21. OFF-STREET PARKING (cont.)

- (7) Restaurants, eating and drinking establishments -- 1 parking space for every 4 seats, plus 1 space for every 2 employees, unless public parking is provided;
- (8) Professional Offices and public buildings -- 1 parking space for every 200 square feet of gross leasable area, exclusive of cellar and bulk storage areas, unless public parking is provided;
- (9) Marinas -- Minimum of 1 parking space for each docking and mooring space;
- (10) Other Commercial Recreation Establishments (mini golf courses, etc.) -- The number of spaces deemed appropriate by the Planning Board; and
- (11) Industrial -- 1 parking space for each 1.5 employees, based on the highest expected average employee occupancy, plus visitor and customer parking to meet the needs of specific operations.

22. OFF-STREET LOADING

In any District where permitted or allowed, commercial or industrial uses shall provide, as necessary, off-street parking as set forth in the above provision. Off-street loading facilities shall be located entirely on the same lot as the building or use to be served so that trucks, trailers and containers shall not be located for loading or storage upon any public way. Off-street loading shall meet the following provisions:

- a. All loading spaces shall be designed so that all vehicles using them shall park or stand completely off the street;
- b. Joint use of loading spaces by two or more users in a Commercial or Industrial District may be authorized by the Planning Board upon review;
- c. All off-street loading spaces shall be on the same or adjacent lot which is being served.
- d. Required loading spaces shall in no case be part of the area used to satisfy the off-street parking requirements of this Ordinance.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

21. OFF-STREET PARKING

- a. Off-street parking, either by means of open air spaces or by garage space, in addition to being a permitted use, shall be considered as an accessory use when required or provided to serve conforming uses located in any District;
- b. Required off-street parking spaces shall be provided;
- c. The following minimum off-street parking requirements shall be provided and maintained in case of new construction, alterations and changes of use;
 - (1) Dwellings - Two (2) parking spaces for each dwelling unit;
 - (2) Transient Accommodations:
 - (a) Bed and Breakfast accommodations and motels, hotels, boarding houses, and inns with 10 rooms or less -- Two (2) parking spaces plus one space for each guest room; and
 - (b) Motels, hotels, boarding houses, and inns with more than 10 rooms -- One (1) parking space for each guest plus one (1) space for each 3 employees;
 - (3) Schools -- Five (5) parking spaces for each room plus 1 space for every 4 employees;
 - (4) Health Institutions (bed facilities only) -- 1 parking space for every 3 beds, plus 1 for each employee based on the expected average employee occupancy;
 - (5) Theaters, churches, and other public assembly places -- 1 parking space for every 4 seats or for every 100 square feet or major fraction thereof of assemblage space if no fixed seats;
 - (6) Retail Stores -- 1 parking space for every 200 square feet of retail area, plus one space for every two employees, unless public parking is provided;

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

23. OIL AND CHEMICAL STORAGE

- a. All storage of petroleum or liquid petroleum products shall be in conformance with the provisions of Title 38 MRSA, Section 560 et seq., which among other things establishes a ten-year compliance schedule for the discontinuance and removal of non-conforming underground oil storage facilities and requires qualified personnel to oversee the removal of certain underground facilities; and
- b. When applicable, the applicant shall have the burden of proof to assure the Planning Board or Code Enforcement Officer that all provisions of the above statutes have been met before the issuance of any permits may take place.

24. PESTICIDE APPLICATION

Pesticide application in any of the Districts shall not require a permit provided such application is in conformance with applicable State and Federal statutes and regulations.

25. POLLUTION LEVELS

Any pollutant introduced into soil on the site shall not exceed a concentration in the ground water that is greater than the guideline established for it in the Safe Drinking Water Standard, EPA Health Advisory, or NAS Health Advisory. Any violation of this standard shall be cause to order the immediate stop of the use or activity responsible for the contamination. The land owner shall be responsible for the cost of all remedial actions.

26. REFUSE DISPOSAL

The applicant shall provide for the disposal of all solid and liquid wastes on a timely basis and in an environmentally safe manner. The impact of particular industrial or chemical wastes or by-products upon the sanitary facilities (in terms of volume, flammability or toxicity) shall be considered and the applicant may be required to dispose of such wastes elsewhere, in conformance with all applicable state and federal regulations. The applicant may be required to specify the amount and exact nature of all industrial or chemical wastes to be generated by the proposed operation.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

27. SEWAGE DISPOSAL

a. Subsurface Sewage Disposal

No permit shall be issued for a project with subsurface sewage disposal unless:

- (1) There is an area of suitable soils according to the Subsurface Waste Water Disposal rules of sufficient size to accommodate the proposed system
- (2) An acceptable plan to construct the absorption area is prepared in accordance with the Subsurface Waste Water Disposal Rules; and
- (3) In lieu of (1) and/or (2) above, the applicant demonstrates that any deficiencies of the soil for purposes of sewage disposal can and will be overcome by a suitable engineering solution; No development shall be permitted which utilizes, for on-site subsurface sewage disposal purposes, any soil listed in the Soil Suitability Guide as having a very poor rating for the proposed use, unless the proposed sewage disposal system is approved under the Subsurface Waste Water Disposal Rules.

b. Sewage Sludge Disposal

The following requirements shall apply to sewage sludge disposal wherever allowed: All septic sludge disposal shall conform with the "Maine Guidelines for Septic Tank Sludge Disposal on the Land" published by the University of Maine at Orono and the Maine Soil and Water Conservation Commission in April, 1974.

28. SIGNS

a. Conformance of Signs

No sign shall hereafter erected, altered or maintained within the limits of the Town of East Millinocket except in conformance with the provisions of this section.

b. Signs Prohibited

No sign, whether new or existing, shall be permitted within the Town of East Millinocket which causes a sight, traffic, health or welfare hazard, or results in a nuisance, due to illumination, placement, display, or obstruction of existing signs.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

28. SIGNS (cont.)

c. On Premise Signs

Owners or Occupants of real property may erect and maintain on-premise signs which advertise the sale or lease thereof or activities being conducted thereon provided that said signs are in conformance with the regulations set forth below:

- (1) The maximum size for each individual sign in a Residential Development District shall not exceed four (4) square feet;
- (2) The maximum size for each individual sign located in a District other than a Residential Development District unless otherwise limited or prohibited shall not exceed forth (40) square feet;
- (3) On-premise signs, other than wall or projecting signs, shall not extend more than 20 feet above ground level, and shall not have a supporting structure which extends more than two (2) feet above such sign;
- (4) The maximum aggregate area of signs for an individual use in a Residential Development District shall not exceed six (6) square feet;
- (5) No sign shall be permitted which is erected or maintained on any tree or painted or drawn upon any rock or other natural feature or any utility pole;
- (6) One sign identifying the name, address and profession or occupation of a permitted home occupation or a lawfully existing non-conforming home occupation is permitted provided that such sign does not exceed four (4) square feet in area and is not internally illuminated; and
- (7) Directional signs solely indicating ingress and egress placed at driveway locations, containing no advertising material or display area, not exceeding two (2) square feet, and not extending higher than four (4) feet above ground level are permitted.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

28. SIGNS (cont.)

d. Temporary Signs

The following temporary signs are permitted provided said signs conform to all standards of this section and all other municipal, federal and state ordinances, statutes and/or regulations:

(1) Temporary Signs Giving Notice

Signs of a temporary nature, such as political posters, advertisements or charitable functions, notices of meetings, other non-commercial signs of a similar nature, are permitted for a period not to exceed thirty (30) days, provided that the persons who posted the signs shall be responsible for their removal.

(2) Temporary Yard Sale Signs

Temporary yard sale signs are permitted provided they do not exceed the size standards of Subsection e and provided they are removed within 24 hours of the completion of the sale. Yard sales which extend for more than four (4) consecutive days are considered commercial use.

e. Sign Requirements

All signs within the limits of the Town of East Millinocket shall meet the following requirements:

(1) No sign shall project over a walkway or interfere in any way with the normal flow of foot or vehicular traffic. All free standing signs shall be set back a minimum of five (5) feet from property lines in all Districts;

(2) No sign shall contain, include, or be illuminated by flashing, blinking, intermittent, or moving lights;

(3) Signs may be illuminated only by shielded non-flashing lights so as to effectively prevent beams or rays of light from being directed at neighboring residential properties or any portion of the main traveled way of a roadway, or is of such low intensity or brilliance as not to cause glare or impair the vision of the driver of any motor vehicle or otherwise interfere with the operation thereof.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

29. SIGNS (cont.)

f. Exempt Signs

The following signs are exempt from the provisions of this section except as otherwise provided for herein:

- (1) Signs erected by a government body; and
- (2) Traffic control signs, signals, and/or devices.

29. SITE CONDITIONS

- a. During construction, the site shall be maintained and left each day in a safe and sanitary manner, and any condition which could lead to personal injury or property damage shall be immediately corrected by the developer upon order by the Code Enforcement Officer or other authorized personnel. The developer shall make provision for disposal of oil and grease from equipment and the site area should be regular treated to control dust from construction activity.
- b. Developed areas shall be cleared of all stumps, litter, rubbish, brush, weeds, dead and dying trees, roots and debris, and excess or scrap building materials shall be removed or destroyed immediately upon the request of and to the satisfaction of the Code Enforcement Officer prior to issuing an occupancy permit; and
- c. No changes shall be made in the elevation or contour of the lot or site by the removal of earth to another lot or site other than as shown on an approved site plan. Minimal changes in elevations or contours necessitated by field conditions may be made only after approval by the Code Enforcement Officer/Planning Board and as duly noted on the site plan.

30. SOILS

All land uses shall be located on soils in or upon which the proposed uses or structures can be established or maintained without causing adverse environmental impacts, including severe erosion, mass soil movement, and water pollution, whether during or after construction.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

31. TEMPORARY STORAGE

Portable or mobile trailers, vans and similar vehicles or temporary buildings may be used for storage, only upon approval of the Code Enforcement Officer and only for a temporary period not to exceed six (6) months. Such approval may be granted by the Code Enforcement Officer and may be extended for successive periods of six (6) months each, if a finding can be made that the use:

- a. Does not diminish area requirements as set forth for the District in which it is located;
- b. There is a valid temporary need which cannot be met within the principal structure and that adequate economic hardship can be shown;
- c. The initial approval, or any renewal, of the use will not in any way be detrimental to the neighboring properties including aesthetic appearance;
- d. The use is not intended as a permanent or long term use;
- e. The use is not intended to circumvent building area limitations for the District in which it is located or prolong the use of facilities which have been outgrown;
- f. Will be adequately screened from neighborhood properties and the street;
- g. Will not be used as or intended for advertising for on or off premises purposes;
- h. Is not intended for retail sales.

The above provisions do not prohibit the use of such temporary facilities as construction or job site office or equipment storage facilities during construction provided that no advertising other than the contractor's name shall be permitted and that such signs meet the sign requirements of this Ordinance.

32. TOPSOIL AND VEGETATION REMOVAL

- a. Topsoil shall be considered part of the development and shall not be removed from the site except for surplus topsoil from roads, parking areas, and building excavations;

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS (Continued)

32. TOPSOIL AND VEGETATION REMOVAL (cont.)
- b. Except for normal thinning, landscaping, cutting or trees to provide access to direct sunlight, existing vegetation shall be left intact to prevent soil erosion. The Planning Board shall require a developer to take measures to correct and prevent soil erosion in the proposed development.
33. TRANSIENT ACCOMMODATIONS: "BED AND BREAKFAST"
- "Bed and Breakfast" accommodations shall be permitted in the private, year-round residence of the host family who live on the premises provided that:
- a. The maximum number of guests at any time is ten (10) persons. Children under 12 are exempt from this provision;
 - b. The maximum number of guest rooms is five (5);
 - c. Breakfast is the only meal provided by the host family;
 - d. One (1) sign not to exceed four (4) square feet is permitted on the premises; and
 - e. The "Bed and Breakfast" operation shall not have any adverse effect on neighbors.
34. TRANSIENT ACCOMMODATIONS: "RENTAL CABINS AND COTTAGES"
- To insure the health, safety, and welfare of guests and the occupants of neighboring properties, the following requirements shall be met:
- a. Each cabin or cottage site shall meet the minimum lot size requirements of a single family detached dwelling in the applicable District;
 - b. A minimum of two hundred (200) square feet of off-street parking plus maneuvering space shall be provided for each cabin or cottage;
 - c. Each cabin or cottage shall be set back a minimum of fifty (50) feet from the exterior lot lines;
 - d. Each cabin or cottage shall be provided with a safe and adequate means of sewage, garbage and rubbish disposal, water supply and fire protection;
 - e. Adequate storm water drainage shall be provided for each cabin or cottage site; and
 - f. Each cabin or cottage site shall be appropriately landscaped.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS

B. DIMENSIONAL REQUIREMENTS

All structures and uses shall meet or exceed the following dimensional requirements:

District	(RD)
<u>Dimensional Requirements</u>	<u>Residential Development District</u>
Minimum Lot Size	
Municipal Sewer	10,000 Square Feet
Subsurface Disposal	20,000 Square Feet
Minimum Lot Area Per Family	5,000 Square Feet
Minimum Road Frontage	100 Feet
Minimum Lot Width	100 Feet
Minimum Lot Depth	100 Feet
Minimum Front Yard Setback	35 Feet
From Edge of Traveled Way	20 Feet
(Corner Lot)	
Minimum Side Yard Setback	Frontage Setback
	> 100' - 10 Feet
	< 100' - 5 Feet
Minimum Rear Yard Setback	Frontage - Setback
	> 100' - 10 Feet
	< 100' - 5 Feet
Maximum Building Height	30 Feet
Maximum Lot Coverage	30%

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS

B. DIMENSIONAL REQUIREMENTS (cont.)

District <u>Dimensional Requirements</u>	(C) <u>Commercial District</u>
Minimum Lot Size	
Municipal Sewer	10,000 Square Feet
Subsurface Disposal	20,000 Square Feet
Minimum Lot Area per Family	5,000 Square Feet
Minimum Road Frontage	60 Feet
Minimum Lot Width	60 Feet
Minimum Lot Depth	75 Feet
Minimum Front Yard Setback From Edge of Traveled Way	20 Feet
Minimum Side Yard Setback	8 Feet
Minimum Rear Yard Setback	24 Feet
Maximum Building Height	30 Feet
Maximum Lot Coverage	

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS

B. DIMENSIONAL REQUIREMENTS (cont.)

District <u>Dimensional Requirements</u>	(ID) <u>Industrial District</u>
Minimum Lot Size	10,000 Square Feet
Minimum Road Frontage	100 Feet
Minimum Lot Width	100 Feet
Minimum Lot Depth	100 Feet
Minimum Front Yard Setback	50 Feet
Minimum Side Yard Setback	50 Feet
Minimum Rear Yard Setback	50 Feet
Maximum Building Height	45 Feet*
Maximum Lot Coverage	50%

- * No building shall be exceed three stories or 45 feet in height without approval of the East Millinocket Planning Board. Features of buildings or structures, such as chimneys, tower, ventilators, and spires, may exceed 45 feet in height, but shall be set back from the nearest lot line a distance of not less than the height of such feature or structure, unless a greater set back is required by other provisions of this Ordinance.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE ORDINANCE

B. DIMENSIONAL REQUIREMENTS

District <u>Dimensional Requirements</u>	(IPD) <u>Industrial Park District</u>
Minimum Lot Size	10,000 Square Feet
Minimum Road Frontage	100 Feet
Minimum Lot Width	100 Feet
Minimum Front Yard Setback	50 Feet
Minimum Side Yard Setback	50 Feet
Minimum Rear Yard Setback	50 Feet
Maximum Lot Coverage	50 %
Maximum Building Height	45 Feet*

- * No building shall exceed three stories or 45 feet in height, except without approval of the East Millinocket Planning Board. Features of buildings and structures, such as chimneys, tower, ventilators, and spires, may exceed 45 feet in height, but shall be set back from the nearest lot line a distance of not less than the height of such feature or structure, unless a greater set back is required by other provisions of this Ordinance.

Land Use Ordinance of the Town of East Millinocket

SECTION V: LAND USE STANDARDS

B. DIMENSIONAL REQUIREMENTS (cont.)

District
Dimensional Requirements

(AP)
Aquifer Protection District

Minimum Lot Size

NA

Minimum Road Frontage

NA

Minimum Setbacks

NA

District
Dimensional Requirements

(R)
Rural District

Minimum Lot Size

Municipal Sewer

10,000 Square Feet

Subsurface Wastewater Disposal

20,000 Square Feet

**Minimum Lot Size per
Dwelling**

NA

Minimum Frontage and Setbacks

NA

Maximum Building Height

30 Feet

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT

Section Uses Guide: This section contains provisions for the administration of this Ordinance including specific provisions for certificates of compliance, conditions of approval, and public hearings.

A. CREATION OF ADMINISTERING BODIES AND AGENTS

1. CODE ENFORCEMENT OFFICER

The office of Code Enforcement is hereby established. The Code Enforcement Officer shall be appointed by the Selectpersons of the Town of East Millinocket.

The Code Enforcement Officer shall approve or deny those applications on which he/she is employed to act as provided in this Ordinance. Approval shall be granted only if the proposed use is in conformance with the provisions of this Ordinance.

2. PLANNING BOARD

The Planning Board of the Town of East Millinocket is hereby designated as the Planning Board heretofore, established in accordance with Article VIII, Pt 2, Section 1 of the Maine Constitution and Title 30-A MRSA, Section 3001. The Planning Board shall be appointed by the Selectpersons of the Town of East Millinocket.

The Planning Board shall approve, approve with conditions, or deny those applications on which it is empowered to act as stated in this Ordinance. Approval shall be granted only if the proposed use is in conformance with the provisions of this Ordinance.

3. BOARD OF APPEALS

The Board of Appeals for the Town of East Millinocket is hereby designated as the Board of Appeals heretofore, established in accordance with Article VIII, Pt. 2, Section 1 of the Maine Constitution and with Title 30-A MRSA, Section 3001. The Board of Appeals shall be appointed by the Selectpersons of the Town of East Millinocket.

B. APPROVAL REQUIRED

After the effective date of this Ordinance, no person shall engage in any activity requiring a permit under this Ordinance without first obtaining the approval of the Planning Board or Code Enforcement Officer, as provided herein.

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT (Continued)

C. APPLICATION REQUIRED

Applications for approval shall be submitted in writing, on forms provided, to the Code Enforcement Officer who shall oversee the permitting process and record keeping. The Code Enforcement Officer may require the submission of additional information deemed necessary to determine conformance with the provisions of this Ordinance.

D. OTHER PERMITS REQUIRED BEFORE APPROVAL

Applications for approval under this Ordinance will not be considered complete for processing until all other required local, state, and federal permits have been secured and evidence that they have been secured has been provided unless state or federal regulations require local approval first.

E. POSITIVE FINDINGS REQUIRED

Approval shall be granted by the Code Enforcement Officer or Planning Board, after receipt of a complete application, only upon a positive finding by the Code Enforcement Officer or Planning Board that the proposed use:

- a. Is a permitted use in the district/zone in which it is proposed to be located;
- b. Is in conformance with the applicable performance standards of Section V of this Ordinance;
- c. Will not result in unsafe or unhealthful conditions;
- d. Will not result in undue land, water, or air pollution;
- e. Will not result in undue erosion or sedimentation;
- f. Will avoid problems associated with development in flood hazard areas;
- g. Will not result in damage to spawning grounds, fish, aquatic life, bird and other wildlife habitat;
- h. Will conserve significant natural, archaeological and historical resources;
- i. Will minimize traffic congestion and provide for orderly traffic flow.

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT (Continued)

F. VIOLATIONS

Violation of the terms and conditions of this Ordinance shall be corrected within 30 days of receipt of Notice of Violation, unless an extension of time is granted by the Code Enforcement Officer or Planning Board, said violation may void all permits. In the situation of public endangerment, the Code Enforcement Officer may order the immediate correction and abatement of violation.

G. COMMENCEMENT AND COMPLETION OF WORK

Construction and alteration activities for which approval has been granted under this Ordinance shall commence within six (6) months of the date of permit issuance and shall be substantially completed within twenty-four (24) months of the date of permit issuance.

Activities which are not commenced or substantially completed within the time limits provided above shall be subject to new application and the approval issued under this Ordinance shall be considered void.

Activities may be extended in (1) year increments by the Code Enforcement Officer or Planning Board if application is submitted not later than thirty (30) days prior to expiration.

H. CERTIFICATE OF OCCUPANCY REQUIRED

After a building, structure, or part thereof has been erected, altered, enlarged, or moved, pursuant to approval under this Ordinance, a Certificate of Occupancy shall be obtained from the Code Enforcement Officer for the proposed use before the same may be occupied or used. A Certificate of Occupancy is required for all activities granted approval under the terms of this Ordinance.

I. PUBLIC HEARINGS

Following the filing of an application, and before taking action on any application, the Planning Board may hold a public hearing on the application within 30 days of receipt of completed application. In scheduling public hearings under this Ordinance, the Planning Board shall notify the Selectpersons in advance of the date, time and place of the hearing. The Town Clerk shall publish notice of the hearing at least seven (7) days in advance in a newspaper of general circulation in the area at least one (1) time and shall post such notice in at least two (2) conspicuous public places at least seven (7) days in advance of the hearing.

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT (Continued)

I. PUBLIC HEARINGS (Continued)

At any hearing, a party may be represented by agent or attorney. Hearings shall not be continued to other times except for good cause. The applicant's case shall be heard first. To maintain orderly procedure, each side shall proceed without interruption. Questions may be asked through the Chair. All persons at the hearing shall abide by the order of the Chairperson of the Planning Board or designated hearing officer.

Within thirty-five (35) days of the public hearing, the Planning Board shall reach a decision on the proposed development plan and shall inform the applicant and the Selectpersons in writing within seven (7) days of its decision stating its reasons. The Planning Board shall prepare detailed, written findings of fact, based on sufficient evidence presented at the public hearing, as well as its conclusions and the reasons or basis thereof. These findings shall not be based on feelings or unsubstantiated allegations, but upon the evidence contained in the record of the hearing.

J. ENFORCEMENT

1. NUISANCES

Any violation of this Ordinance shall be deemed to be a nuisance.

2. CODE ENFORCEMENT OFFICER

It shall be the duty of the Code Enforcement Officer to enforce the provisions of this Ordinance. If the Code Enforcement Officer shall find that any provision of this Ordinance is being violated, he/she shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct the violation, including discontinuance of illegal use of land, buildings, structures, and abatement of nuisance conditions. A copy of such notices shall be maintained as a permanent record.

3. LEGAL ACTIONS

When the above action does not result in the correction or abatement of the violation or nuisance condition, the Selectpersons, upon notice from the Code Enforcement Officer, are hereby authorized and directed to institute any and all actions and proceedings, either legal or equitable, including seeking injunctions of violations and the imposition of fines, that may be appropriate or necessary to enforce the provisions of the Ordinance in the name of the municipality.

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT (Continued)

4. FINES

Any person who continues to violate any provisions of this Ordinance after receiving notice of such violation shall be guilty of a misdemeanor subject to a fine of a minimum of \$100.00 - \$2,500.00 for each violation.

5. CONTRACTOR LIABILITY

Any contractor involved in any activity regulated by the provisions of this Ordinance may be held liable for violating this Ordinance if the necessary permits for said activity have not been obtained.

K. APPEALS

1. ADMINISTRATIVE APPEALS

The Board of Appeals shall hear and decide appeals where it is alleged that there is any error in any order, requirement, decision, or determination made by, or failure to act by, the Code Enforcement Officer or the Planning Board in the administration of this Ordinance. When errors of administrative procedures or interpretation are found, the case shall be remanded to the Code Enforcement Officer or Planning Board for correction.

2. VARIANCES

The Board of Appeals shall authorize variances upon appeal, within the limitations set forth in this Ordinance.

- a. Dimensional variances may be granted only from dimensional requirements including frontage, lot area, lot width, height, and setback requirements.
- b. Variances shall not be granted for establishment of any use otherwise prohibited by this Ordinance.
- c. The Board shall not grant a variance unless it finds that:
 1. The proposed structure or use would meet the performance standards of this Ordinance except for the specific provision which has created the non-conformity and from which relief is sought: and
 2. The strict application of the terms of this Ordinance would result in an undue hardship. The term "undue hardship" shall mean all of the following:

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT (Continued)

2. VARIANCES (cont.)

- a. The land in question cannot yield a reasonable return unless a variance is granted;
 - b. That the need for a variance is due to the circumstances of the property and not to the general condition in the neighborhood;
 - c. That the granting of a variance will not alter the essential character of the locality; and
 - d. That the hardship is not the result of action taken by the applicant or a prior owner.
- d. The Board may grant a variance to a property owner for the purpose of making the property accessible to a person with a disability who is living or regularly visits the property. The Board shall restrict any variance granted under this Sub-Section solely to the installation of equipment or the construction of structures necessary for access to or egress from the property by the person with the disability.
- e. The Board may grant a variance to a property owner from a setback requirement only when strict application of the zoning ordinance to a petitioner and the petitioners property would cause undue hardship. A variance under this section may not exceed 20% of a setback requirement and may not be granted if the variance would cause the area of the dwelling to exceed the maximum permissible lot coverage (if applicable). If the petitioner has obtained the written consent of an affected abutting landowner, the 20% limitation may be extended. The term "undue hardship" for this section means:
1. The need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood;
 2. The granting of a variance will not alter the essential character of the locality;
 3. The hardship is not the result of action taken by the applicant or a prior owner;
 4. The granting of the variance will not substantially reduce or impair the use of abutting property; and

Land Use Ordinance of the Town of East Millinocket

SECTION VI: ADMINISTRATION AND ENFORCEMENT (Continued)

2. VARIANCES (cont.)

5. That the granting of a variance is based upon demonstrated need, not convenience, and no other feasible alternative is available.

3. APPEAL TO SUPERIOR COURT

An appeal may be taken within thirty (30) days after any decision is rendered by the Board of Appeals, by any party to Superior Court in accordance with State Law.

L. VARIANCE RECORDED

If the board grants a variance under this section, a certificate indicating the name of the current property owner, identifying the property by reference to the last recorded deed in its chain of title and indicating the fact that a variance, including any conditions on the variance, has been granted and the date of the granting, shall be prepared in recordable form. The certificate must be recorded in the local registry of deeds within 90 days of the date of the final written approval of the variance or the variance is void. The date of the final written approval shall be the date stated on the written approval.

M. FEE SCHEDULE

All applications for permits shall be in accordance with the fee schedule as established by the Selectpersons of the Town of East Millinocket. Fees shall be for the cost of processing the various permits and shall not be refundable regardless of the final decision to issue or deny a permit.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS

A. CONSTRUCTION OF LANGUAGE

1. In this Ordinance, certain terms or words should be interpreted as follows:
 - a. The word "person" includes a firm, association, organization, partnership, trust, company, or corporation, as well as individual;
 - b. The present tense includes the future tense, the singular number includes the plural and plural includes the singular;
 - c. The word "shall" is mandatory;
 - d. The word "may" is permitted;
 - e. The words "used" or "occupied" includes the words "intended", "designed", or "arranged to be used or occupied"; and
 - f. The word "dwelling" includes the word "residence".

In the case of any difference or meaning or implication between the text of this Ordinance and any map or illustration, the text shall control.

2. Terms not defined shall have the customary dictionary meaning.

B. DEFINITIONS

For the purposes of interpreting this Ordinance, the following terms, phrases, words, and their derivations shall have the meaning given herein.

ABUTTING: Having a common border with, or being separated from such common border by an alley or easement.

ACCESS: A means of approach or entry to or exit from property.

ACCESSORY STRUCTURE: See Structural Terms

ACRE: A measure of land containing forty-three thousand, five hundred and sixty (43,560) square feet.

AGGRIEVED PERSON: A person whose interests are damaged or adversely affected by a decision, an action, or the failure to act by the Planning Board or Code Enforcement Officer.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

ALTERATION: As applied to a building or structure, a change or rearrangement in the structural parts or in the means of egress; or an enlargement, whether by extending on a side or by increasing height; or in moving from one location or position to another.

APPEAL: A means for obtaining review of a decision, determination, order or failure to act pursuant to the terms of this Ordinance as expressly authorized by this Ordinance.

ATTIC: That part of a building which is immediately below, and wholly or partly within the roof framing.

AUTOMOBILE SALES: A lot arranged, designed, or used for the storage and display for sale of any motor vehicle and where no repair work is done except minor incidental repair of automobiles or trailers displayed and sold on the premises.

BASEMENT: The substructure of a building that is partially or wholly below ground level which may or may not be used for living spaces.

BED AND BREAKFAST: Accommodations provided for compensation as a business in the private year-round residence of the host family, consisting of a maximum of five guest rooms and 10 guests at any one time, not including children under 12 years of age. Breakfast is the only meal, if any, to be provided for compensation.

BUFFERS: Units of land, together with specified types and amounts of planting thereon and any structures which may be required between land uses to eliminate or minimize conflicts between them.

BUILDING: A roofed structure. See Structural Terms

BUILDING FRONT LINE: Line parallel to the front lot line transecting that point in the building face which is closest to the front lot line. This face includes porches whether enclosed or unenclosed but does not include steps.

CAMPGROUND: Any premises established for overnight use for the purpose of temporary camping and for which a fee is charged directly or indirectly.

CERTIFICATE OF OCCUPANCY: Official certification that a premises conforms to provisions of the Land Use Ordinance (and building code, electrical code, plumbing code, and life safety code) and may be used or occupied. Such a certificate is granted for new construction or for alteration or additions to existing structures. Unless such a certificate is issued, a structure cannot be lawfully occupied.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

CLUSTER DEVELOPMENT: The development, according to an approved plan, of a large tract of land where three (3) or more buildings are constructed on lots smaller than normally required in the district where located, provided the overall density of the development of the tract does not exceed the density or requirements of the district; and land not built upon is permanently preserved as common "open space". The term also refers to a Planned Unit Development.

CODE ENFORCEMENT OFFICER: A person appointed by the Board of Selectpersons to administer this Ordinance.

DAY CARE CENTER: As defined in Title 22, MRSA, Section 1673, as a house or other place in which a person or combination of persons maintains or otherwise carries out a regular program, for consideration, for any part of a day, providing care and protection for 3 or more children under the age of 16 unrelated to the operator, not to include nursery schools, summer camps, formal public or private schools, and further defined by the Department of Human Services as follows:

Day Care Center: A Day Care Facility as defined in State Statutes for 13 or more children on a regular basis; and

Day Care Home: A Day Care Facility as defined in State Statutes for 3 to 12 children on a regular basis.

DEVELOPER: The legal or beneficial owner(s) of a lot or parcel of any land proposed for inclusion in a development, including the holder of an option or contract to purchase.

DISTRICT: A specified portion of the Town, delineated on the Official Zoning Map, within which certain regulations and requirements or various combinations thereof, apply under the provisions of this Ordinance.

EASEMENT: Legally binding authorization by a property owner of the use by another and for a specified purpose of any designated part of his property.

EMERGENCY OPERATIONS: Emergency operations shall include operations conducted for the public health, safety or general welfare, such as protection or resources from immediate destruction or loss, law enforcement, and operations to rescue human beings and livestock from the threat of destruction or injury.

ENLARGEMENT OR TO ENLARGE: An "enlargement" is an addition to the floor area of an existing building, an increase in the size of any structure, or an increase in that portion of a tract of land occupied by an existing use. To "enlarge" is to make an enlargement.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

ESSENTIAL SERVICES: The construction, alteration, maintenance of gas, electrical, communication facilities, steam, fuel or water transmission or distribution systems, collection supply or disposal systems. Such systems include tower, poles, wires, mains, drains, sewers, pipes, conduits, cables, fire alarm and police call boxes, traffic signals, hydrants and similar accessories. These systems are exempt from the definition of a structure.

EXTENSION OR TO EXTEND: An increase in the amount of floor area used for an existing use within an existing building. To "extend" is to make an extension.

FAMILY: Two (2) or more persons related by blood, marriage or adoption or guardianship, or not more than five (5) persons not so related occupying a dwelling unit and living as a single housekeeping unit; such a group to be distinguished from a group occupying a boarding house, lodging house, club, or fraternity, or hotel.

FOREST MANAGEMENT TERMS:

Forest Management Activities: Timber harvesting and other forest resources evaluation activities, management planning activities, insect and disease control, timber stand improvement, pruning, timber harvesting and other similar associated activities but not the construction or creation of roads.

Timber Harvesting: The cutting and removal of trees from their growing site, and the attendant operation of harvesting machinery, but not the construction of roads. Timber harvesting does not include the clearing of land for approved construction.

GARAGE, RESIDENTIAL: An accessory building for parking or temporary storage of automobiles of residential occupants of the premises, or a part of the residence usually occupying the ground floor area of principal one-or-two family dwellings, not more than one (1) space may regularly be used by the private passenger automobile or a person not residing on the premises.

GROCERY STORE: A small neighborhood establishment retailing food and related commodities, as distinguished from a supermarket, defined as a "Major Retail Outlet".

GUEST ROOM: A room in a hotel, motel, tourist home or "bed and breakfast" residence offered to the public for compensation in which no provision is made for cooking.

HOME OCCUPATION: A business, profession, occupation, or trade conducted for gain or support and located entirely within a residential building or a structural accessory thereto, which use is accessory, incidental and secondary to the use of the building for dwelling purposes, and does not change the residential character or appearance of such building.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

HOSPITAL: An institution providing health services, primarily for in-patient, and medical or surgical care of the sick or injured, including as an integral part of the institution, such related facilities as laboratories, out patient departments, training facilities, central service facilities and staff offices.

INDUSTRY: Use of a premises for assembling, fabricating, finishing, manufacturing, packaging, or processing. These include but are not limited to assembly plants, laboratories, power plants, pumping stations and repair shops.

IN-LAW APARTMENTS: See Structural Terms

JUNKYARDS:

Automobile Graveyards: A yard, field or other area used as a place of storage for three (3) or more unserviceable, discarded, worn-out or junked automobiles.

Junkyard: A yard, field or other area used as a place of storage for discarded worn-out or junked plumbing, heating supplies, household appliances, furniture, scrap lumber, old or scrap copper, brass, rope, rags, batteries, paper trash, rubber debris, waste and scrap iron, steel and other ferrous and non-ferrous material including garbage dumps, waste dumps and sanitary landfills.

Auto Recycling Business: An automobile recycling business is a business which purchases or acquires salvage vehicles for the purpose of reselling the vehicles or component parts, rebuilding or repairing salvage vehicles for resale.

~ **LAND USE PERMIT:** A permit for proposed land use activity as defined in this Ordinance and issued by the Planning Board or Code Enforcement Officer in accordance with the provisions of this Ordinance.

2 **LIGHT MANUFACTURING:** The fabrication or processing of materials into a finished product. Fabrication relates to the stamping, cutting or otherwise shaping the processed material into useful products/objects.

LOADING SPACE: An off-street space or berth on the same lot with a building or contiguous to a group of buildings for the temporary parking of a commercial vehicle while loading or unloading merchandise or materials, and which abuts upon a street, alley or other appropriate means of access.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

LOT: A parcel of land undivided by any street or public road and occupied by, or designated to be developed for, one (1) building or principal use and the accessory buildings or uses incidental to such building, use or development, including such open spaces and yards as designed, and arranged or required by this Ordinance for such building, use or development

LOT CORNER: A lot abutting two or more streets at their intersection.

LOT COVERAGE: The percentage of the lot covered by impervious surfaces.

LOT DEPTH: The mean horizontal distance between the front and rear lot lines measured within the lot boundaries.

LOT FRONTAGE: Lot width measured at the street lot line. When a lot has more than one street lot line, lot width shall be measured, and the minimum lot width required by the Ordinance shall be provided, on at least one street.

LOT LINE: A line bounding a lot which divides one lot from another, or from a street or any other public or private space, as defined below.

Front Lot Line: In the case of a lot abutting only one street, the street line separating such lot from such street; in the case of a double frontage lot, each street line separating such lot from a street shall be considered to be the front lot line, except where the rear yard requirement is greater than the front yard requirement in which case one of two opposing yards shall be a rear yard. In the case of lot with no frontage, the front lot line shall be considered to be the line parallel to the front of the building.

Rear Lot Line: That lot line which is parallel to and most distant from the front lot line of the lot; in the case of an irregular, triangular, or gore-shaped lot, a line twenty (20) feet in length, entirely within the lot, parallel to and at the maximum possible distance from, the front lot line shall be considered to be the lot line. In the case of lots which have frontage on more than one road or street, the rear lot line shall be opposite the lot line along which the lot takes access to a street

Side Lot Line Any lot line other than a front or rear lot line.

LOT OF RECORD: Any validly recorded lot which at the time of its recordation complied with all applicable laws, ordinances, and regulations.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

LOT STANDARDS: The combination of controls which establishes the maximum size of a building and its location on the lot. Components of lot standards, also known as "space and bulk" regulations in size and height of building; location or exterior walls at all levels with respect to lot line, streets, and other buildings; building coverage; gross floor area of buildings in relation to lot area; open space (yard) requirements; and amount of lot area provided per dwelling unit.

MANUFACTURED HOUSING: A structural unit or units designed for occupancy, and constructed in a manufacturing facility and then transported by the use of its own chassis, or places on an independent chassis, to a building site.

For the purposes of this Ordinance, three (3) types of manufactured housing will be referred to:

1. **NEWER MOBILE HOME:** Those units constructed after June 15, 1976, which the manufacturer certifies are constructed in compliance with the United States Department of housing and Urban Development standards and complies with the Manufactured Housing Construction and Safety Standards of 1974, et. seq., which in the traveling mode are 14 body feet or more in width and area 750 or more square feet and area constructed on a permanent chassis and designed to be used as a dwelling, with or without permanent foundation;
2. **OLDER MOBILE HOMES:** Those units constructed before June 15, 1976, and not in compliance with the Manufactured Housing Construction and Safety Standards Act of 1974, which are constructed on a permanent chassis and designed to be used as a dwelling, with or without a permanent foundation, but does not include those smaller units commonly called "travel trailers"; and
3. **MODULAR HOMES:** Those units which the manufacturer certifies are constructed in compliance with the State's Manufactured Housing Act and regulations, meaning structures, transportable in one or more sections, which are not constructed on a permanent chassis and are designed to be used as dwellings on foundations when connected to required utilities, including the plumbing, heating, air conditioning or electrical systems contained herein.

MEDICAL CLINIC: An office building used by members of the medical profession for the diagnosis and out-patient treatment of human ailments.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

MINERAL EXTRACTION: The removal of sand, gravel, bedrock or soil from its natural site of geologic deposition or formation; the screening, sorting, crushing or other processing of any part of the geologic material so removed; the storage of sand, gravel, crushed stone, or soil in stock piles or other forms.

MOBILE HOME PARK: A parcel of land under unified ownership approved by the Town of East Millinocket for the placement of three (3) or more manufactured homes.

MOTOR VEHICLE: Every vehicle which is self-propelled and designed for carrying persons or property or which is used for the transportation of persons.

MOTOR VEHICLE, UNSERVICEABLE: Any motor vehicle which is wrecked, dismantled, cannot be operated legally on any public highway, or which is not being used for the purposes for which it was manufactured.

MUNICIPAL FACILITIES: Buildings or land which is owned by the Town of East Millinocket and operated under its supervision.

NON-CONFORMING USE: See USE TERMS

NORMAL MAINTENANCE AND REPAIR: Any work necessary to maintain an improvement or structure in its original or previously improved state or condition. Normal maintenance and repair shall not include reconstruction, change in design, change in structure, change in use, change in location, change in size or capacity.

OWNER: The person or persons having the right of legal title to, beneficial interest in, or a contractual right to purchase a lot or parcel of land.

PARCEL: The entire area of a tract of land before being divided by a development.

PARKING LOT: An open area other than a street used for the parking of more than four automobiles and available for public use whether free, for compensation, or an accommodation for clients or customers.

PARKING SPACE: A surfaced area, enclosed or unenclosed, sufficient in size to store one automobile together with a driveway connecting the parking space with a street, road or alley and permitting ingress and egress of that automobile without the necessity of moving any other automobile.

PERFORMANCE STANDARD: A criterion established to control the use of land and structures. The purpose of performance standards is to provide detailed regulations and

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

PERFORMANCE STANDARD (cont.)

restrictions by means of minimum criteria which must be met by uses in order to protect neighbors from adverse impacts of adjoining land uses and to protect the general health, safety and welfare of citizens of East Millinocket.

RESTAURANT: An establishment whose principal business is the sale of food and/or beverages to consumers in a ready-to-consume state, and whose principal method of operation includes one or both of the following characteristics.

1. Customers normally provided with an individual menu, are served their food and beverages by a restaurant employee at the same table or counter at which food and beverages are consumed; or
2. A cafeteria type operation where food and beverages generally are consumed within the restaurant building.

RETAIL ESTABLISHMENT: Any business, housed in a permanent structure, engaged primarily in the sale of goods and services to the ultimate consumer for direct consumption and/or use, but not for resale.

ROAD: A thoroughfare or way consisting of a bed of exposed mineral soil, gravel, asphalt, or other surfacing material constructed for or created by the repeated passage of motorized vehicles.

Private Road: A thoroughfare or way designated for private use and maintained by a property owner or group of property owners.

Public Road: A public thoroughfare, way, or easement permanently established for passage of persons or vehicles.

SETBACK: The minimum distance from the edge of the traveled way or lot line to the nearest part of a structure.

SIGN ITEMS: Devise, model, banner, pennant, insignia, flag, or other representation which is used as, or in the nature of an advertisement, announcement or direction.

Billboards: Anything designed, intended or used for advertising a product, property, business, entertainment, service, amusement or the like, and not located where the matter advertised is available or occurs.

Free Standing: A sign supported by one or more uprights or braces permanently affixed into the ground.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

SIGN ITEMS (cont.)

Portable: A sign not designed or intended to be permanently affixed into the ground or to a structure.

Roof: A sign which is attached to a building and is displayed above the eaves of such building.

Temporary: A sign of a temporary nature, erected less than ninety (90) days, exemplified by the following: political poster, charitable signs, construction signs, carnival signs, garage sale signs, lawn sale signs, rummage sale signs, and all signs advertising sales of personal property, and for rent signs.

Wall: Any sign painted on, or attached to, the wall surface of a building and projecting therefrom not more than six (6) inches.

Window: Any on-premise, non-temporary sign visible from the exterior of the building or structure which is permanently painted, attached, glued, or otherwise affixed to a window.

Sign Area: The exposed surface of the sign including all ornamentation, embellishment, background, and symbols, but excluding the structure which does not form a part of the message of the sign measured in square feet.

STRUCTURAL TERMS:

Building: Any structure, maintained, or intended for use as shelter or enclosure of persons, animals, goods or property of any kind. This term is inclusive of any thereof. Where independent units with separate entrances are divided by walls, each unit is a building.

Building Accessory: A building which one (1) is subordinate in area, extent and purpose to the principal building or use served, (2) is located on the same lot as the principal building or use served except as otherwise expressly authorized by the provisions of this Ordinance, and three (3) is customarily incidental to the principal building or use. Any portion of a principal building devoted or intended to be devoted to an accessory use is not an accessory building.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

STRUCTURAL TERMS (cont.)

Building, Principal: A building (structure) is which is conducted or in which is intended to be conducted, the main or primary use of the lot on which it is intended.

Dwelling: A building or portion thereof, used exclusively for residential occupancy, including single-family, two family and multiple family dwellings.

Dwelling Unit/Apartment: A room or group or rooms designed and equipped exclusively for use as living quarters for only one (1) family, including provisions for living, sleeping, cooking and eating.

Dwelling Unit/Single Family Dwelling: A dwelling designed for and occupied by not more than (1) family and having no roof, wall or floor in common with any other dwelling unit. The term shall include manufactured and prefabricated homes.

Dwelling, Two Family: A detached or semi-detached building used for residential occupancy by two (2) families living independently of each other.

In-Law Apartments: A separate dwelling unit which is located within and subordinate to a single family detached dwelling and which is occupied by a person or persons related to the owner and principal occupant of the dwelling unit by blood, marriage or adoption, whether or not said person or persons pay rent or share expenses with the owner thereof.

Structure: Anything constructed or erected, the use of which requires permanent location on, above or below the surface of the land, including a patio or deck.

TRANSIENT: A non-resident person residing within the Town of East Millinocket less than thirty (30) days.

USE: The purpose or activity for which land or any building thereon is designed, arranged, or intended, or for which it is occupied or maintained.

Accessory Use: A use subordinate to a permitted use located on the same lot, and customarily incidental to the permitted use.

Principal Use: The specific primary purpose for which land is used.

Land Use Ordinance of the Town of East Millinocket

SECTION VII: DEFINITIONS (Continued)

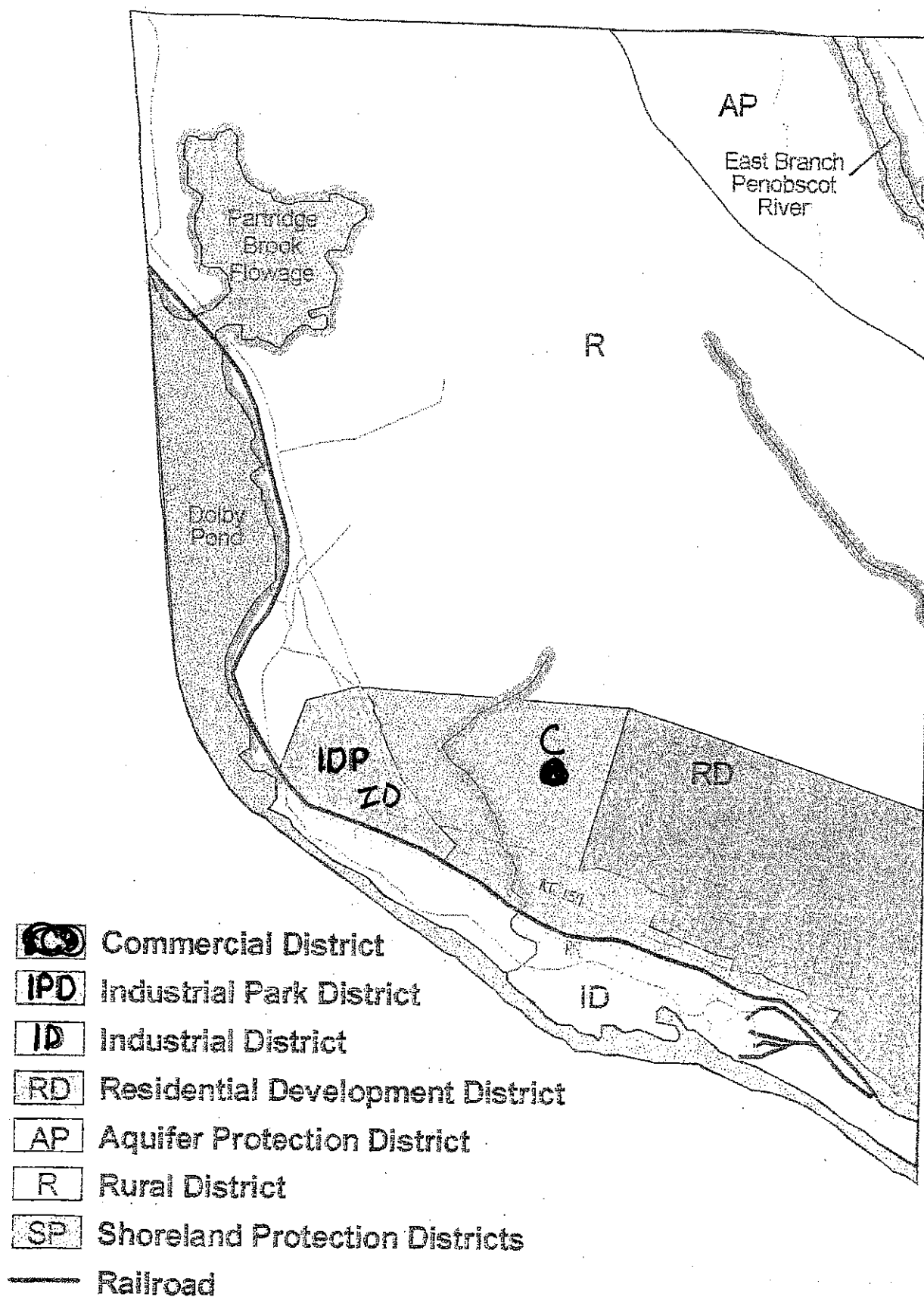
Conforming Use: A use which may be lawfully established in a particular district, provided it conforms with all the requirements, standards and regulations of such district.

Non-Conforming Use: A use which does not conform to the provisions of this Ordinance.

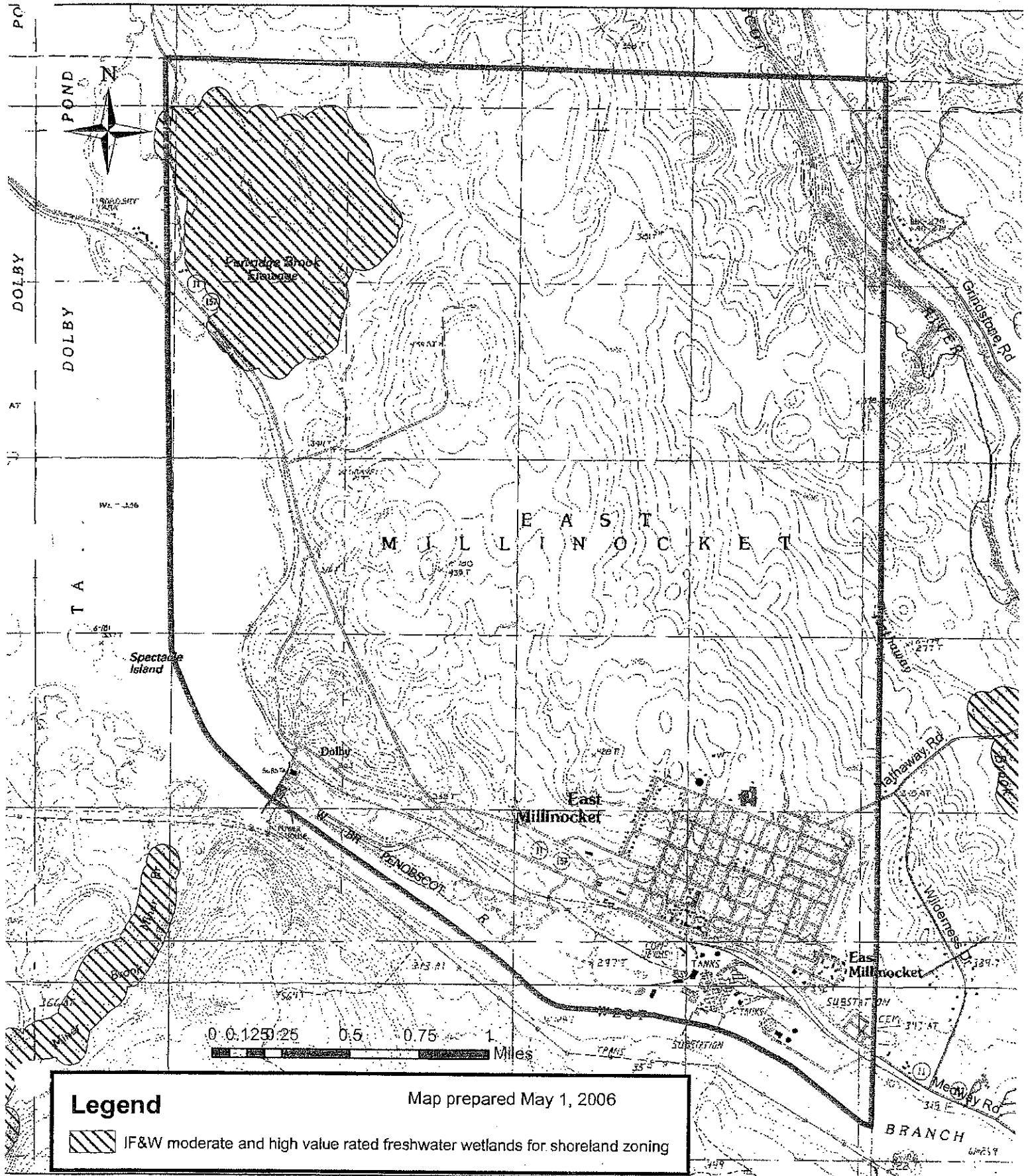
Open Space Use: A use which does not disturb the existing state of the land except to restore this land to a natural condition.

VARIANCE: A relaxation of the terms of this Ordinance where such a variance would not be contrary to the public interest and where, owing to conditions peculiar to the property and not the result of the actions of the applicant, a literal enforcement of this Ordinance would result in unnecessary or undue hardship.

Official Zoning Map of the Town of East Millinocket



Town of East Millinocket Moderate & High Value Freshwater Wetlands



This map shows only moderate and high value rated freshwater wetlands. Please note that low value and non-rated freshwater wetlands are still required to be zoned, as they have been since 1989.

APPENDIX A

METES AND BOUNDS DESCRIPTIONS OF LAND USE DISTRICTS

Residential Development District

Residential District begins where the westerly line of land now or formerly owned by Christara Associates intersects with Church Street; thence, northerly along the westerly bound of Christara Associates and continuing in the same direction along an extension of the same line to a Point marking the extension of a line formed by a transmission line owned by Bangor Hydro Electric Company as said line runs in a generally east-west direction and parallel to North Street; thence easterly along said extension and the centerline of the Bangor Hydro Electric Company transmission line, continuing in the same direction to the easterly bound of the town; thence southerly along the easterly bound of the town to the intersection of the easterly bound of the town with Rt. 157; thence generally westerly along Rt. 157 to the intersection of Rt. 157 and Oak Street; thence in a northerly direction along the centerline of Oak Street to the intersection of the centerline of Oak Street with centerline of Main street, thence, continuing along the centerline of Main Street in a westerly direction to the intersection of Main Street and Maple street; thence continuing in a northerly direction along the centerline of Maple Street to the intersection of Maple Street with Main Street Alley, so called; thence in a westerly direction along Main Street Alley including land abutting the northerly bounds of Main Street Alley to the intersection of Main Street Alley and Cedar Street; thence continuing westerly to the northeast corner of Lot 6 in Block 11 and the Southeast corner Of Lot 7 in Block 11 as laid out on Great Northern Paper Company Site Plan of the Town of East Millinocket; thence continuing along the southerly bounds of Lots 7 and 12 in Block 11 to Western Avenue; thence along a continuation of the same line to the southeast corner of Lot 6 in Block 10 and the northeast corner of Lot 5 in Block 10 on said Plan; thence along the south bound of lots 6 and 11 in Block 10 and a continuation of said line to the center line of Cone St.; thence, northerly along the centerline of Cone Street to the intersection of Cone Street and Church Street; thence along the centerline of Church Street in a westerly direction to the westerly line of land now or formerly of Christara Associates and the point of beginning.

Aquifer Protection District

Beginning at a point where the westerly shore of the East Branch of the Penobscot River intersects the northerly line of the town; thence westerly along the northerly line of the town a distance of 2500 feet; thence generally southeasterly parallel with the westerly shore of the East Branch of the Penobscot River and at all times maintaining a distance of 2500 feet from the westerly shore of the East Branch of the Penobscot River to the easterly line of the town; thence northerly along the easterly line of the town to the westerly shore of the East Branch of the Penobscot River; thence northerly along the shore of the East Branch of the Penobscot River to the point of beginning.

Commercial District

Parcel one: A triangular parcel of land bounded on the east by the centerline of Oak Street, on the north by the centerline of Main Street, and on the south by the centerline of Rt. 157.

Parcel Two: Bounded on the east by the centerline of Maple Street, and an extension of said

centerline southerly to the B & A Railroad right of way, on the South by the B & A Railroad, on the north by the Residential District, and on the west by the centerline of Cone Street and an extension of the centerline of Cone Street southerly to the B & A Railroad right of way.

Parcel Three: Bounded on the east by the centerline of Cone Street, on the north by the centerline of Church Street Continuing along the centerline of Church Street as it becomes an extension of Old Rt. 157 continuing to the intersection of Old Rt. 157 with Rt. 157; bounded on the west by a line running from the intersection of Old Rt. 157 parallel with the east line of the town to the Bangor and Aroostook right of way; bounded on the south by the Bangor and Aroostook right of way.

Parcel Four: Beginning at the northwesterly corner of the Residential District; thence westerly along a continuation of the northerly line of the Residential District to the easterly line of Rt. 157; thence southerly along Rt. 157 to the intersection of discontinued old Rt. 157 and the north bound of Parcel Three; thence along the centerline of old Rt. 157 to Church St. and along the centerline of Church St. to the westerly line of the Residential District; thence northerly along the west bound of the Residential District to the point of beginning.

Industrial Park District

The Industrial Park District consists of the area laid out on the Subdivision Plan for East Millinocket Industrial Park prepared by James W. Sewall Company dated September 18, 1989 and recorded in the Penobscot County Registry of Deeds In Map File D151-90.

Industrial District

Beginning at a point where the easterly bank of Dolby Flowage intersects Dolby Dam; thence, following the shore of the West Branch of the Penobscot River to the point where the shore intersects the easterly line of the town; thence, along the easterly line of the town to the intersection of the easterly line of the town with Rt. 157; thence westerly along the centerline of Rt. 157 to the intersection of the centerline of Maple Street; thence, southerly along the centerline of Maple Street to the Bangor and Aroostook Rail Road right of way; thence westerly along the Bangor and Aroostook right of way to the intersection of the Bangor and Aroostook right of way with the road forming the western most entrance to the Great Northern Paper Company Mill complex, now used for the delivery of forest products; thence easterly along said entrance road to the intersection of Rt. 157; thence northerly along the centerline of Rt. 157 to a point where the Industrial Park District intersects Rt. 157- thence generally southerly and westerly along the easterly and southerly bound of the Industrial Park District to the discontinued access road leading to Dolby Dam; thence generally southerly along the centerline of said discontinued Dolby Dam access road to the point where Dolby Dam intersects the easterly shore of Dolby Flowage and the point of beginning.

Rural District

The Rural District consists of all remaining areas within the limits of the Town of East Millinocket not classified as lying within the Commercial District, Residential District, Industrial District, Aquifer Protection District, Shoreland Protection Districts or Industrial Park District.

ARTICLE 74

FLOODPLAIN MANAGEMENT ORDINANCE

FOR THE

TOWN OF EAST MILLINOCKET, MAINE

ENACTED: Annual T/M
05/24/1994
Date

CERTIFIED BY: _____
Name

Title

Affix Seal

STATEMENT OF PURPOSE AND INTENT

Certain areas of the Town of East Millinocket, Maine are subject to periodic flooding, causing serious damages to properties within these areas. Relief is available in the form of Federally subsidized flood insurance as authorized by the National Flood Insurance Act of 1968.

Therefore, the Town of East Millinocket, Maine has chosen to become a participating community in the National Flood Insurance Program, and agrees to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended) as delineated in the attached Floodplain Management Ordinance.

It is the intent of the Town of East Millinocket, Maine to require the recognition and evaluation of flood hazards in all official actions relating to land use in the floodplain areas having special flood hazards.

This body has the legal authority to adopt land use and control measures to reduce future flood losses pursuant to MRSA Title 30A, Sections 3001-3007, 4352 and 4401-4407.

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60.3(b) Rev. 10/93

FLOODPLAIN MANAGEMENT ORDINANCE

ARTICLE I - ESTABLISHMENT

The Town of East Millinocket, Maine elects to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). The National Flood Insurance Program, established in the aforesaid Act, provides that areas of the Town having a special flood hazard be identified by the Federal Emergency Management Agency and that floodplain management measures be applied in such flood hazard areas. This Ordinance establishes a Flood Hazard Development Permit system and review procedure for development activities in the designated flood hazard areas of the Town of East Millinocket, Maine.

The areas of special flood hazard, identified by the Federal Emergency Management Agency in a map entitled "Flood Insurance Rate Map - Town of East Millinocket, Maine, Penobscot County," dated February 4, 1987, is hereby adopted by reference and declared to be a part of this Ordinance.

ARTICLE II - PERMIT REQUIRED

Before any construction or other development (as defined in Article XIII), including the placement of manufactured homes, begins within any areas of special flood hazard established in Article I, a Flood Hazard Development Permit shall be obtained from the Planning Board. This permit shall be in addition to any other building permits which may be required pursuant to the codes and ordinances of the Town of East Millinocket, Maine.

ARTICLE III - APPLICATION FOR PERMIT

The application for a Flood Hazard Development Permit shall be submitted to the Code Enforcement Officer and shall include:

- A. The name and address of the applicant;
- B. An address and a map indicating the location of the construction site;
- C. A site plan showing location of existing and/or proposed structures, sewage disposal facilities, water supply facilities, areas to be cut and filled, and lot dimensions;
- D. A statement of the intended use of the structure;
- E. A statement as to the type of sewage system proposed;

- F. Specification of dimensions of the proposed structure;
- G. The elevation in relation to the National Geodetic Vertical Datum (NGVD) or to a locally established datum, of the:
 - 1. base flood at the proposed site of all new or substantially improved structures, which in Zone A is determined to be the elevation of the ground at the intersection of the floodplain boundary and a line perpendicular to the shoreline which passes along the ground through the site of the proposed building;
 - 2. highest and lowest grades at the site adjacent to the walls of the proposed building;
 - 3. lowest floor, including basement; and whether or not such structures contain a basement; and,
 - 4. level, in the case of non-residential structures only, to which the structure will be floodproofed;
- H. A description of a base flood elevation reference point established on the site of all new or substantially improved structures;
- I. A written certification by a registered land surveyor that the elevations shown on the application are accurate;
- J. Certification by a registered professional engineer or architect that floodproofing methods for any non-residential structures will meet the floodproofing criteria of Article III.G.4; Article VI.G; and other applicable standards in Article VI.
- K. A description of the extent to which any water course will be altered or relocated as a result of the proposed development; and,
- L. A statement of construction plans describing in detail how each applicable development standard in Article VI will be met.

ARTICLE IV - APPLICATION FEE AND EXPERT'S FEE

A non-refundable application fee of \$.01 per square foot shall be paid to the Town Treasurer and a copy of a receipt for the same shall accompany the application.

An additional fee may be charged if the Code Enforcement Officer and/or Board of Appeals needs the assistance of a professional engineer or other expert. The expert's fee shall be paid in full by the applicant within 10 days after the town submits a bill to

the applicant. Failure to pay the bill shall constitute a violation of the ordinance and be grounds for the issuance of a stop work order. An expert shall not be hired by the municipality at the expense of an applicant until the applicant has either consented to such hiring in writing or been given an opportunity to be heard on the subject. An applicant who is dissatisfied with a decision of the Code Enforcement Officer may appeal that decision to the Board of Appeals.

ARTICLE V - REVIEW OF FLOOD HAZARD DEVELOPMENT PERMIT APPLICATIONS

The Code Enforcement Officer/Planning Board shall:

- A. Review all applications for the Flood Hazard Development Permit to assure that proposed building sites are reasonably safe from flooding and to determine that all pertinent requirements of Article VI (Development Standards) have, or will be met;
- B. Utilize, in the review of all Flood Hazard Development Permit applications, the base flood data contained in the "Flood Insurance Rate Map - Town of East Millinocket, Maine," as described in Article I. In special flood hazard areas where base flood elevation data are not provided, the Code Enforcement Officer/Planning Board shall obtain, review and reasonably utilize any base flood elevation and floodway data from federal, state, or other sources, including information obtained pursuant to Articles III.G.1.b.; VI.I; and VIII.D, in order to administer Article VI of this Ordinance;
- C. Make interpretations of the location of boundaries of special flood hazard areas shown on the maps described in Article I of this Ordinance;
- D. In the review of Flood Hazard Development Permit applications, determine that all necessary permits have been obtained from those federal, state, and local government agencies from which prior approval is required by federal or state law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;
- E. Notify adjacent municipalities, the Department of Environmental Protection, and the Maine Office of Community Development prior to any alteration or relocation of a water course;
- F. Issue a two part Flood Hazard Development Permit for elevated structures. Part I shall authorize the applicant

to build a structure to and including the first horizontal floor only above the base flood level. At that time the applicant shall provide the Code Enforcement Officer with an application for Part II of the Flood Hazard Development Permit and shall include an Elevation Certificate completed by a registered Maine surveyor for compliance with the elevation requirements of Article VI, paragraphs F, G, H, and K. Following review of the application, which review shall take place within 72 hours of receipt of the application, the Code Enforcement Officer shall issue Part II of the Flood Hazard Development Permit. Part II shall authorize the applicant to complete the construction project; and,

- G. Maintain, as a permanent record, copies of all Flood Hazard Development Permits issued and data relevant thereto, including reports of the Board of Appeals on variances granted under the provisions of Article IX of this Ordinance, and copies of Elevation Certificates and Certificates of Compliance required under the provisions of Article VII of this Ordinance.

ARTICLE VI - DEVELOPMENT STANDARDS

All developments in areas of special flood hazard shall meet the following applicable standards:

- A. New construction or substantial improvement of any structure shall:
1. be designed or modified and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 2. use construction materials that are resistant to flood damage;
 3. use construction methods and practices that will minimize flood damage; and,
 4. use electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during flooding conditions.
- B. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems.

- C. All new and replacement sanitary sewage systems shall be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.
- D. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during floods.
- E. All development shall be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of any watercourse.
- F. New construction or substantial improvement of any residential structure located within Zone A shall have the lowest floor (including basement) elevated to one foot above the base flood elevation utilizing information obtained pursuant to Article III, paragraph G.1.; Article V, paragraph B; or Article VIII, paragraph D.
- G. New construction or substantial improvement of any non - residential structure located within Zone A shall have the lowest floor (including basement) elevated to one foot above the base flood elevation utilizing information obtained pursuant to Article III, paragraph G.1.; Article V, paragraph B; or Article VIII, paragraph D, or together with attendant utility and sanitary facilities shall:
 - 1. be floodproofed to at least one foot above the base flood elevation utilizing information obtained pursuant to Article III, paragraph G.1.; Article V, paragraph B; of Article VIII, paragraph D, so that below that elevation the structure is watertight with walls substantially impermeable to passage of water;
 - 2. have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and,
 - 3. be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a Flood Hazard Development Permit, as required by Article III, paragraph J and shall include a record of the elevation above mean sea level of the lowest floor including basement.

H. New or substantially improved manufactured homes shall:

1. be elevated on a permanent foundation such that the lowest floor is at least one foot above the base flood elevation utilizing information obtained pursuant to Article III, paragraph G.1.; Article V, paragraph B; or Article VIII, paragraph D; and,
2. be securely anchored to an adequately anchored foundation system to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to:
 - a. secure anchoring to an adequately anchored foundation system; or by,
 - b. over-the-top ties anchored to the ground at the four corners of the manufactured home, plus two additional ties per side at intermediate points (manufactured homes less than 50 feet long require one additional tie per side); or by,
 - c. frame ties at each corner of the home, plus five additional ties along each side at intermediate points (manufactured homes less than 50 feet long require four additional ties per side).
 - d. All components of the anchoring system described in Article VI, paragraph H.1.b.(1)(2) shall be capable of carrying a force of 4800 pounds.

I. Floodways - encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in a floodway which, in Zone A riverine areas, is the channel of the river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain as measured from the normal high water mark to the upland limit of the floodplain, unless a technical evaluation certified by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing or anticipated development:

1. will not increase the water surface elevation of the base flood more than one foot at any point within the community; and,
2. is consistent with the technical criteria contained in Section 2-7 entitled "Hydraulic Analyses," Flood Insurance Study - Guidelines and Specifications for Study Contractors, (FEMA 37/September, 1985, as amended).

J. New construction or substantial improvement of any structure in Zones A that meets the development standards of Article VI, including the elevation requirements of Article VI, paragraphs F, G, or H and is elevated on posts, columns, piers, piles, "stilts," or has crawlspaces less than three feet in height may be enclosed below the base flood elevation requirements provided all the following criteria are met or exceeded:

1. Walls, with the exception of crawlspaces less than three feet in height, shall not be part of the structural support of the building; and,
2. Enclosed areas are not "basements" as defined in Article XIII; and,
3. Enclosed areas shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must either:
 - a. be certified by a registered professional engineer or architect; or,
 - b. meet or exceed the following minimum criteria:
 - (1) a minimum of two openings having a total net area of not less than one square inch for every square foot of the enclosed area;
 - (2) the bottom of all openings shall be no higher than one foot above the lowest grade; and,
 - (3) openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the entry and exit of flood waters automatically without any external influence or control such as human intervention, including the use of electrical and other non-automatic mechanical means; and,
4. The enclosed area shall not be used for human habitation; and,
5. The enclosed area may be used for building maintenance, access, parking vehicles, or storing of articles and equipment used for maintenance of the building.

ARTICLE VII - CERTIFICATE OF COMPLIANCE

No land in a special flood hazard area shall be occupied or used and no structure which is constructed or substantially improved shall be occupied until a Certificate of Compliance is issued by the Code Enforcement Officer subject to the following provisions:

- A. The applicant shall submit an Elevation Certificate completed by:
 - 1. a registered Maine surveyor for compliance with Article VI, paragraphs F, G, or H; and,
 - 2. a registered professional engineer or architect, in the case of floodproofed non-residential structures, for compliance with Article VI. paragraph G.
- B. The application for a Certificate of Compliance shall be submitted by the applicant in writing along with a completed Elevation Certificate to the Code Enforcement Officer.
- C. The Code Enforcement Officer shall review the application within 10 working days of receipt of the application and shall issue a Certificate of Compliance, provided the building conforms with the provisions of this Ordinance.

ARTICLE VIII - REVIEW OF SUBDIVISION AND DEVELOPMENT PROPOSALS

The Planning Board shall, when reviewing subdivisions and other proposed developments that require review under other federal law, state law or local ordinances or regulations and all projects on 5 or more acres, or in the case of manufactured home parks divided into two or more lots, assure that:

- A. All such proposals are consistent with the need to minimize flood damage.
- B. All public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damages.
- C. Adequate drainage is provided so as to reduce exposure to flood hazards.
- D. All proposals include base flood elevation and, in a riverine floodplain, floodway data.
- E. Any proposed development plan shall include a statement that the developer will require that structures on lots in the development be constructed in accordance with Article VI of

this ordinance and that such requirement will be included in any deed, lease, purchase and sale agreement, or document transferring or expressing an intent to transfer any interest in real estate or structure, including but not limited to a time-share interest. The statement shall clearly articulate that the municipality may enforce any violation of the construction requirement and that fact shall also be included in the deed or any other document previously described. The construction requirement shall also be clearly stated on any map, plat, or plan to be signed by the Planning Board or local reviewing authority as part of the approval process.

ARTICLE IX - APPEALS AND VARIANCES

The Board of Appeals of the Town of East Millinocket may, upon written application of an aggrieved party, hear and decide appeals from determinations of the Planning Board/Code Enforcement Officer in the administration of the provisions of this Ordinance. The Board of Appeals may grant a variance from the requirements of this Ordinance consistent with state law and the following criteria:

- A. Variances shall not be granted within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
- B. Variances shall be granted only upon:
 - 1. a showing of good and sufficient cause; and,
 - 2. a determination that should a flood comparable to the base flood occur, the granting of a variance will not result in increased flood heights, additional threats to public safety, public expense, or create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances; and,
 - 3. a showing that the issuance of the variance will not conflict with other state, federal or local laws or ordinances; and,
 - 4. a determination that failure to grant the variance would result in "undue hardship," which in this sub-section means:
 - a. that the land in question cannot yield a reasonable return unless a variance is granted; and,

- b. that the need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood; and,
 - c. that the granting of a variance will not alter the essential character of the locality; and,
 - d. that the hardship is not the result of action taken by the applicant or a prior owner.
- C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. Variances may be issued by a community for new construction, substantial improvements, or other development for the conduct of a functionally dependent use provided that:
 - 1. other criteria of Article IX and Article VI-I are met; and,
 - 2. the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
- E. Variances may be issued by a community for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or a State Inventory of Historic Places, without regard to the procedures set forth in Article IX, paragraphs A through D.
- F. Any applicant who meets the criteria of Article IX, paragraphs A through E shall be notified by the Board of Appeals in writing that:
 - 1. The issuance of a variance to construct a structure below the base flood level will result in greatly increased premium rates for flood insurance up to amounts as high as \$25 Per \$100 of insurance coverage;
 - 2. such construction below the base flood level increases risks to life and property; and,
 - 3. the applicant agrees in writing that the applicant is fully aware of all the risks inherent in the use of land subject to flooding, assumes those risks and agrees to indemnify and defend the municipality against any claims filed against it that are related to the applicant's decision to use land located in a floodplain and that the applicant individually releases the municipality from any claims the applicant may have

against the municipality that are related to the use of land located in a floodplain.

- G. The Board of Appeals shall submit to the Planning Board/Code Enforcement Officer a report of all variance actions, including justification for the granting of the variance and an authorization for the Planning Board/Code Enforcement Officer to issue a Flood Hazard Development Permit, which includes any conditions to be attached to said permit.

ARTICLE X - ENFORCEMENT AND PENALTIES

- A. It shall be the duty of the Code Enforcement Officer to enforce the provisions of this Ordinance pursuant to 30A MRSA § 4452.
- B. The penalties contained in 30A MRSA § 4452 apply to any violation of this ordinance.
- C. In addition to any other actions, the Code Enforcement Officer, upon determination that a violation exists, shall submit a declaration to the Administrator of the Federal Insurance Administration requesting a denial of flood insurance. The valid declaration shall consist of;
1. the name of the property owner and address or legal description of the property sufficient to confirm its identity or location;
 2. a clear and unequivocal declaration that the property is in violation of a cited State or local law or ordinance;
 3. a statement that the public body making the declaration has the authority to do so and a citation to that authority;
 4. evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and,
 5. a clear statement that the declaration is being submitted pursuant to Section 1316 of the National Flood Insurance Act of 1968, as amended.

ARTICLE XI - VALIDITY AND SEVERABILITY

If any section or provision of this Ordinance is declared by the courts to be invalid, such decision shall not invalidate any other section or provision of this Ordinance.

ARTICLE XII - CONFLICT WITH OTHER ORDINANCES

This Ordinance shall not in any way impair or remove the necessity of compliance with any other applicable rule, ordinance, regulation, bylaw, permit, or provision of law. Where this Ordinance imposes a greater restriction upon the use of land, buildings, or structures, the provisions of this Ordinance shall control.

ARTICLE XIII - DEFINITIONS

Unless specifically defined below, words and phrases used in this Ordinance shall have the same meaning as they have at common law and to give this Ordinance its most reasonable application. Words used in the present tense include the future, the singular number includes the plural, and the plural number includes the singular. The word "may" is permissive; "shall" is mandatory and not discretionary.

Adjacent Grade - means the natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Area of a Shallow Flooding - means a designated AO and AH zone on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of Special Flood Hazard - means the land in the floodplain having a one percent or greater chance of flooding in any given year, as specifically identified in the Flood Insurance Study cited in Article I of this Ordinance.

Base Flood - means the flood having a one percent chance of being equalled or exceeded in any given year, commonly called the 100-year flood.

Basement - means any area of the building having its floor subgrade (below ground level) on all sides.

Breakaway Wall - means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Building - see Structure.

Certificate of Compliance - A document signed by the Code Enforcement Officer stating that a structure is in compliance with all of the provisions of this Ordinance.

Code Enforcement Officer - any person or board responsible for performing the inspection, licensing, and enforcement duties required by a particular statute or ordinance.

Development - means any change caused by individuals or entities to improved or unimproved real estate, including but not limited to the construction of buildings or other structures; the construction of additions or substantial improvements to buildings or other structures; mining, dredging, filling, grading, paving, excavation, drilling operations or storage of equipment or materials; and the storage, deposition, or extraction of materials, public or private sewage disposal systems or water supply facilities.

Elevated Building - means a non-basement building:

- (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, or AH, to have the top of the elevated floor, elevated above the ground level by means of pilings, columns, post, piers, or "stilts;" and
- (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to one foot above the magnitude of the base flood.

In the case of Zones A1-30, AE, A, A99, AO, or AH, **Elevated Building** also includes a building elevated by means of fill or solid foundation perimeter walls less than three feet in height with openings sufficient to facilitate the unimpeded movement of flood waters.

Elevation Certificate - An official form (FEMA Form 81-31, 05/90, as amended) that:

- (i) is used to verify compliance with the floodplain management regulations of the National Flood Insurance Program; and
- (ii) is required for purchasing flood insurance.

Flood or Flooding - means:

- (a) A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - (1) The overflow of inland or tidal waters.
 - (2) The unusual and rapid accumulation or runoff of surface waters from any source.

- (b) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (a)(1) of this definition.

Flood Elevation Study - means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations.

Flood Insurance Rate Map (FIRM) - means an official map of a community, on which the Administrator of the Federal Insurance Administration has delineated both the special hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study - see **Flood Elevation Study**.

Floodplain or Flood-prone Area - means any land area susceptible to being inundated by water from any source (see flooding).

Floodplain Management - means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

Floodplain Management Regulations - means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain Ordinance, grading ordinance, and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing - means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and contents.

Floodway - see **Regulatory Floodway**.

Floodway Encroachment Lines - mean the lines marking the limits of floodways on federal, state, and local floodplain maps.

Freeboard - means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors, such

as wave action, bridge openings, and the hydrological effect of urbanization of the watershed, that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions.

Functionally Dependent Use - means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Historic Structure - means any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district;
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - 1) By an approved state program as determined by the Secretary of the Interior, or
 - 2) Directly by the Secretary of the Interior in states without approved programs.

Locally Established Datum - means, for purposes of this ordinance, an elevation established for a specific site to which all other elevations at the site are referenced. This elevation is generally not referenced to the National Geodetic Vertical Datum (NGVD) or any other established datum and is used in areas where Mean Sea Level data is too far from a specific site to be practically used.

Lowest Floor - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access

or storage in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements described in Article VI of this ordinance.

Manufactured Home - means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term manufactured home also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.

Manufactured Home Park or Subdivision - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean Sea Level - means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, or other datum, to which base flood elevations shown on a community's Flood Insurance Rate map are referenced.

New Construction - means structures for which the "start of construction" commenced on or after the effective date of floodplain management regulations adopted by a community and includes any subsequent improvements to such structures.

100-year flood - see **Base Flood**.

Regulatory Floodway -

- (i) means the channel of a river or other water course and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot, and
- (ii) in riverine areas is considered to be the channel of a river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain, as measured from the normal high water mark to the upland limit of the floodplain.

Riverine - means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special Flood Hazard Area - see **Area of Special Flood Hazard**.

Start of Construction - means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement or other improvement was within 180 days of the

permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure - means, for floodplain management purposes, a walled and roofed building. A gas or liquid storage tank that is principally above ground is also a structure.

Substantial Damage - means, damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement - means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or
- (2) Any alteration of a historic structure, provided that the alteration will not preclude the structures's continued designation as a historic structure.

Variance - means a grant of relief by a community from the terms of a floodplain management regulation.

Violation - means the failure of a structure or development to comply with a community's floodplain management regulations.

ARTICLE XIV - ABROGATION

This ordinance repeals and replaces any municipal ordinance previously enacted to comply with the National Flood Insurance Act of 1968 (P.L. 90-488, as amended).

60.3(b)

TOWN OF EAST MILLINOCKET

SHORELAND ZONING

APPENDIX A

Section 1. Purposes

The purposes of this Ordinance are to further the maintenance of safe and healthful conditions; to prevent and control water pollution; to protect fish spawning grounds, aquatic life, bird and other wildlife habitat; to protect buildings and land from flooding and accelerated erosion; to protect archaeological and historic resources; to protect freshwater wetlands; to control building sites, placement of structures and land uses; to conserve shore cover, and visual as well as actual points of access to inland waters; to conserve natural beauty and open space; and to anticipate and respond to the impacts of development in shoreland areas.

Authority 2. Authority

This Ordinance has been prepared in accordance with the provisions of Title 38 Sections 435-449 of the Maine Revised Statutes Annotated (M.R.S.A.).

Section 3. Applicability

This Ordinance applies to all land areas within 250 feet, horizontal distance, of the normal high-water line of any great pond, or river; within 250 feet, horizontal distance, of the upland edge of a freshwater wetland; and within 75 feet, horizontal distance, of the normal high-water line of a stream. This Ordinance also applies to any structure built on, over or abutting a dock, wharf or pier, or other structure extending beyond the normal high-water line of a water body or within a wetland.

Put under R.P. with wetlands criteria.

Flood plains along rivers and flood plains along artificially formed great ponds along rivers, defined by the 100 year flood plain as designated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or Flood Hazard Boundary Maps, or the flood of record, or in the absence of these, by soil types identified as recent flood plain soils.

Areas of two or more contiguous acres with sustained slopes of 20% or greater.

Areas of two (2) or more contiguous acres supporting wetland vegetation and hydric soils, which are not part of a freshwater wetland as defined, and which are not surficially connected to a water body during normal spring high water.

Land areas along rivers subject to severe bank erosion, undercutting, or river bed movement.

Section 4. Effective Date and Repeal of Formerly Adopted Ordinance

This Ordinance, which was adopted by the municipal legislative body of East Millinocket on May 19, 1992, shall not be effective unless approved by the Commissioner of the Department of Environmental Protection. A certified copy of the Ordinance attested and signed by the Town Clerk, shall be forwarded to the Commissioner of Environmental Protection for approval. If the Commissioner of Environmental Protection fails to act on this Ordinance within Forty-five (45) days of its receipt of the Ordinance, it shall be deemed approved.

Upon approval of this Ordinance, the shoreland zoning ordinances previously adopted, including Article Five of the East Millinocket Land Use Ordinance adopted on October 29, 1985 and the Ordinance titled "Town of East Millinocket Shoreland Zoning Appendix A; Title 38 M.R.S.A. Mandatory Zoning and Subdivision Control". Are hereby repealed.

Any application for a permit submitted to the municipality with the forty-five (45) day period shall be governed by the terms of this Ordinance if the Ordinance is approved by the Commissioner.

Section 5. Availability

A certified copy of the Ordinance shall be filed with the Town Clerk and shall be accessible to any member of the public. Copies shall be made available to the public at reasonable cost at the expense of the person making the request. Notice of availability of this Ordinance shall be posted.

Section 6. Severability

Should any section or provision of this Ordinance be declared by the courts to be invalid, such decision shall not invalidate any other section or provision of the Ordinance.

Section 7. Conflicts with Other Ordinances

Whenever a provision of this Ordinance conflicts with or is inconsistent with another provision of this Ordinance or of any other ordinance, regulation nor statute, the more restrictive provision shall have control.

Section 8. Amendments

This Ordinance may be amended by majority vote of the legislative body in accordance with section 1.7 of the Land Use Ordinance. Copies of amendments, attested and signed by the Town Clerk, shall be submitted to the Commissioner of the Department of Environmental Protection following adoption by the municipal legislative body and shall not be effective unless approved by the Commissioner. If the Commissioner fails to act on any amendment within forty-five (45) days of his/her receipt of the amendment, the amendment is automatically approved. Any application for a permit submitted to the municipality within forty-five (45) day period shall be governed by the terms of the amendment, if such amendment is approved by the Commissioner.

Section 9. Zoning Map

A. Official Shoreland Zoning Map

The areas to which this Ordinance is applicable are as shown on the Official Shoreland Zoning Map which is made a part of this Ordinance:

B. Scale of Map

The Official Shoreland Zoning Map shall be drawn at a scale of not less than 1 inch = 2000 feet. District boundaries shall be clearly delineated and a legend indicating the symbols for each district shall be placed on the map.

C. Certification of Official Shoreland Zoning Map

The Official Shoreland Zoning Map shall be certified by the attested signature of the Town Clerk and shall be located in the municipal office.

D. Changes to the Official Shoreland Zoning Map

If amendments, in accordance with Section 8, are made in the district boundaries or matter portrayed on the Official Shoreland Zoning Map, such changes shall be made on the Official Shoreland Zoning Map within thirty (30) days after the amendment has been approved by the Commissioner of the Department of Environmental Protection.

Section 10. Interpretation of Zone Boundaries

Unless otherwise set forth the Official Shoreland Zoning Map,, boundary lines are property lines, the centerlines of streets, roads and rights of way, and the boundaries of the shoreland area as defined herein. Where uncertainty exists as to the exact location of boundary lines, the Board of Appeals shall be the final authority as to location.

The depiction of the Shoreland Zoning Districts on the Shoreland Zoning for the Town of East Millinocket are merely illustrative of their general location. The boundaries of these districts shall be determined by measurement of the distance indicated on the maps from the normal highwater mark of the body of water or the upland edge of wetland vegetation, regardless of the boundary shown on the map.

Section 11. Land Use Requirements

Except as hereinafter specified, no building,,, structure, or land shall hereafter be used or occupied, and no building or structure or part thereof shall hereafter be erected,, constructed, expanded, moved, or altered and no new lot shall be created except in conformity with all of the regulations herein specified unless a variance is granted.

Section 12. Non-conformance

A. Purpose

1. It is the intent of this Ordinance to promote land use conformities, except that non-conforming conditions that existed before the effective date of this Ordinance shall be allowed to continue, subject to the requirements set forth in this section.

B. General

1. Transfer of Ownership: Non-conforming structures, lots, and uses may be transferred, and the new owner may continue the non-conforming use or continue to use the non-conforming structure or lot, subject to the provisions of this Ordinance.
2. Repair and Maintenance: This Ordinance allows, without a permit, the normal upkeep and maintenance of non-conforming uses and structures including repairs or renovations which do not involve expansion of the non-conforming use or structure, and such other changes in a non-conforming use or structure as federal, state, or local building and safety codes may require.

C. Non-conforming Structures

1. Expansions: A non-conforming structure may be added to or expanded after obtaining a permit from the same permitting authority as that for a new structure, if such addition or expansion does not increase the non-conformity of the structure.

Further Limitations:

- a. If any portion of a structure is less than the required setback from the normal high-water line of a water body or upland edge of a wetland, that portion of the structure shall not be expanded in floor area or volume, by 30% or more, during the lifetime of the structure.
- b. Construction or enlargement of a foundation beneath the existing structure shall be not considered an expansion of the structure provided; that the structure and new foundation are placed such that the setback requirement is met to the greatest practical extent as determined by the Planning Board, basing its decision on the criteria specified in subsection 2. Relocation, below; that the completed foundation does not extend beyond the exterior dimensions of the structure; and that the foundation does not cause the structure to be elevated by more than three (3) additional feet.
- c. No structure which is less than required setback from the normal high-water line of a water body, tributary stream, or upland edge of a wetland shall be expanded toward the water body, tributary stream, or wetland.

2. Relocation: A non-conforming structure may be relocated within the boundaries of the parcel on which the structure is located provided that the site of relocation conforms to all setback requirements to the greatest practical extent as determined by the Planning Board, and provided that the applicant demonstrates that the present subsurface sewage disposal system meets the requirements of State law and the State of Maine Subsurface Wastewater Disposal Rules, or that a new system can be installed in compliance with the law and said Rules. In no case shall a structure be relocated in a manner that causes the structure to be more non-conforming.

In determining whether the building relocation meets the setback to the greatest practical extent, the Planning Board shall consider the size of the lot, the slope of the land, the potential for soil erosion, the location of other structures on the property and on-site soils suitable for septic systems, and the type and amount of vegetation to be removed to accomplish the relocation.

3. Reconstruction or Replacement: Any non-conforming structure which is located less than the required setback from the normal high-water line of a water body, tributary stream, or upland edge of a wetland and which is removed, or damaged or destroyed by more than 50% of the market value of the structure before such damage,, destruction or removal, may be reconstructed or replaced provided that a permit is obtained within one year of the date of said damage, destruction, or removal, and provided that such reconstruction or replacement is in compliance with the water setback requirement to the greatest practical extent as determined by the Planning Board in accordance with the purposes of this Ordinance. In no case shall a structure be reconstructed or replaced so as to increase its non-conformity.

Any non-conforming structure which is damaged or destroyed by 50% or less of the market value of the structure, excluding the normal maintenance and repair, may be reconstructed in place with a permit, from the code enforcement officer.

In determining whether the building reconstruction or replacement meets the water setback to the greatest practical extent the Planning Board shall consider in addition to the criteria in paragraph 2 above, the physical condition and type of foundation present, if any.

4. Change of Use of a Non-conforming Structure

The use of a non-conforming structure may not be changed to another use unless the Planning Board after receiving a written application determines that the new use will have no greater adverse impact on the water body or wetland, or on the subject or adjacent properties and resources than the existing use.

In determining that no greater adverse impact will occur, the Planning Board shall require written documentation from the applicant, regarding the probable effects on public health and safety, erosion and sedimentation, water quality, fish and wildlife habitat, vegetative cover, visual and actual points of public access to waters, natural beauty, flood plain management, archaeological and historic resources, and functionally water-dependent uses.

D. Non-conforming Uses

1. Expansions: expansions of non-conforming uses are prohibited, except that non-conforming residential uses may, after obtaining a permit from the Planning Board, be expanded within existing residential structures.
2. Resumption Prohibited: A lot, building or structure in or on which a non-conforming use is discontinued for a period exceeding one year, or which is superseded by a conforming use, may not again be devoted to a non-conforming use except that the Planning Board may, for good cause shown by the applicant, grant up to a one year extension to that time period. This provision shall not apply to the resumption of use of a residential structure provided that the structure has been used or maintained for residential purposes during the preceding five (5) year period.
3. Change of Use: An existing non-conforming use may not be changed to another non-conforming use.

E. Non-conforming Lots

1. Non-conforming Lots: A non-conforming lot of record as of the effective date of this Ordinance or amendment thereto may be built upon, without the need for a variance, provided that such lot is in separate ownership and not contiguous with any other lot in the same ownership, and that all provisions of this Ordinance except lot size and frontage can be met. Variances relating to setback or other requirements not involving lot size and frontage shall be obtained by action of the Board of Appeals.
2. Contiguous Built Lots: If two or more contiguous lots or parcels are in a single or joint ownership of record at the time of adoption of this Ordinance, if all or part of the lots do not meet the dimensional requirements of this Ordinance, and if a principal use or structure exists on each lot, the non-conforming lots may be conveyed separately or together, provided that the State Minimum Lot Size Law and Subsurface Wastewater Disposal Rules are complied with.

If two or more principal uses or structures existed on a single lot of record on the effective date of this Ordinance, each may be sold on a separate lot provided that the above referenced law and rules are complied with. When such lots are divided each lot thus created must be as conforming as possible to the dimensional requirements of this Ordinance.

3. Contiguous Lots - Vacant or Partially Built: If two or more contiguous lots or parcels are in single or joint ownership record at the time of or since adoption or amendment of this Ordinance, if any of these lots do not individually meet the dimensional requirements of this Ordinance or subsequent amendments, and if one or more of the lots are vacant or contain no principal structure the lots shall be combined the extent necessary to meet the dimensional requirements
4. This provision shall not apply to 2 or more contiguous lots at least one of which is non-conforming, owned by the same person or persons on the effective date of this Ordinance and recorded in the registry of deeds if the lot is served a public sewer or can accommodate a subsurface sewage disposal system in conformance with the State of Maine Subsurface Wastewater Disposal Rules and:
 - a. Each lot contains at least 100 feet of shore frontage and at least 20,000 square feet of lot area or:
 - b. Any lots that do not meet the frontage and lot size requirements of subparagraph are reconfigured or combined so that each new lot contains at least 100 feet of shore frontage and 20,000 square feet of lot area.

Section 13. Table of Land Uses

All land use activities, as indicated in Table 1, Land Uses in the Shoreland Zone, shall conform with all of the applicable land use standards in Section 14. The district designation for a particular site shall be determined from the Official Shoreland Zoning Map.

Key to Table 1:

YES - Allowed (no permit required but the use must comply with applicable land use standards.)

NO - Prohibited

PB - Requires permit issued by the Planning Board

CEO - Requires permit issued by the Code Enforcement Officer

TABLE 1. LAND USES IN THE SHORELAND ZONE

1. Non-intensive recreational uses not requiring structure such as hunting, fishing, and hiking	yes
2. Motorized vehicular traffic on existing roads and trails	yes
3. Forest management activities except for timber harvest	yes
4. Timber harvesting	CEO
5. Clearing of vegetation for approved construction and other allowed uses	CEO
6. Fire prevention activities	yes
7. Wildlife management practices	yes

- | | | |
|-----|---|-----|
| 8. | Soil and water conservation and other allowed uses | yes |
| 9. | Mineral exploration | no |
| 10. | Mineral extraction including sand and gravel extraction | no |
| 11. | Surveying and resource analysis | yes |
| 12. | Emergency operations | yes |
| 13. | Agriculture | PB |
| 14. | Aquaculture | PB |
| 15. | Principal structures and uses | |
| | A. One and two family residential | no |
| | B. Multi-unit residential | no |
| | C. Commercial | no |
| | D. Industrial | no |
| | E. Governmental and Institutional | no |
| | F. Small non-residential facilities for educational, scientific, or nature interpretation purposes | PB |
| 16. | Structures accessory to allowed uses | PB |
| 17. | Piers, docks, wharves, bridges and other structures and uses extending over or below the normal high-water line or within a wetland | |
| | a. Temporary | CEO |
| | b. Permanent | PB |
| 18. | Conversion of seasonal residences to year-round residences | no |
| 19. | Home occupations | no |
| 20. | Private sewage disposal systems for allowed uses | no |
| 21. | Essential services | PB |
| | Service drops, as defined, to allowed uses | yes |
| 23. | Public and private recreational areas involving minimal structural development | PB |
| 24. | Individual, private campsites | CEO |
| 25. | Campgrounds | no |
| 26. | Road and driveway construction | no |
| 27. | Parking facilities | no |
| 28. | Marinas | no |
| 29. | Filling and earthmoving of < 10 cubic yards | CEO |
| 30. | Filling and earthmoving of > 10 cubic yards | PB |
| 31. | Signs | yes |
| 32. | Uses similar to allowed uses | CEO |
| 33. | Uses similar to uses requiring a CEO permit | CEO |
| 34. | Uses similar to uses requiring a PB permit | PB |
-
1. Not permitted within 75 feet of the normal high water line of great ponds except to remove safety hazards.
 2. Except to provide access to permitted uses within the district or where no reasonable alternative route or location is available outside the area, in which case a permit is required from the Planning Board.
 3. Except where no reasonable location is available outside the district, in which case a permit is required from the Planning Board.

NOTE: A person performing any of the following activities shall require a permit from the Department of Environmental Protection, pursuant to Title 38 M.R.S.A., Section 480-c, if the activity occurs in, on, over or adjacent to any freshwater or coastal wetland, great pond, river, stream or brook and operates in such a manner that material or soil may be washed into them:

- A. Dredging, bulldozing, removing or displacing soil, sand, vegetation or other materials;
- B. Draining or otherwise dewatering;
- C. Filling, including adding sand or other material to a sand dune; or
- D. Any construction or alteration of any permanent structure.

Section 14. Land Use Standards

All land use activities within the shoreland zone shall conform with the following provisions, if applicable.

- | A. Minimum Lot Standards | Minimum Lot Area
(sq.ft.) | Minimum Shore
Frontage (ft.) |
|---|------------------------------|---------------------------------|
| 1. Public and Private
Recreational Facilities | 40,000 | 200 |
| 2. Land below the normal high-water line of a water body or upland edge of a wetland and land beneath roads serving more than (2) lots shall not be included toward calculating minimum lot area. | | |
| 3. Lots located on opposite sides of a public or private road shall be considered each a separate tract or parcel of land unless such road was established by the owner of land on both sides thereof after September 22, 1971. | | |
| 4. The minimum width of any portion of any lot within one hundred (100) feet, horizontal distance, of the normal high-water line of a water body or upland edge of a wetland shall be equal or greater than the shore frontage requirement for a lot with the proposed use. | | |

B. Principal and Accessory Structures

- 1. All new structures shall be set back at least on hundred (100) feet from the normal high-water line of great ponds and seventy-five (75) feet from the normal high-water line of other water bodies, tributary streams, or the upland edge of a wetland.

OK.  ~~125' Set back Sig river Segment (East branch of Pondusset River.)~~

In addition:

- a. The water body or wetland setback provision shall neither apply to structures which require direct access to the water as an operational necessity, such as piers, docks and retaining walls, nor to other functionally water-dependent uses.
 - b. All principal structures along Significant River Segments as listed in Title 38 M.R.S.A., Section 437, shall be set back a minimum of one hundred and twenty-five (125) feet from the normal high-water line and shall be screened from the river by existing vegetation. This provision does not apply to structures related to hydropower facilities.
 2. Structures and expansions of existing structures which are permitted, shall not exceed thirty-five (35) feet in height. This provision shall not apply to structures such as transmission towers, windmills, antennas, and similar structures having no floor area.
 3. The first floor elevation or openings of all buildings and structures including basements shall be elevated at least one foot above the elevation of the 100 year flood, the flood of record, or in the absence of these, the flood as defined by soil types identified as recent flood plain soils.
 4. The total area of all structures, parking lots and other non-vegetated surfaces, within the shoreland zone shall not exceed twenty (20) percent of the lot or a portion thereof, located within the shoreland zone, including land area previously developed.
 5. Notwithstanding the requirements stated above, stairways or similar structures may allowed with a permit from the Code Enforcement Officer, to provide shoreline access in areas of steep slopes or unstable soils provided; that the structure is limited to a maximum of four (4) feet in width; that the structure does not extend below or over the normal high-water line of a water body or upland edge of a wetland, (unless permitted by the Department of Environmental Protection pursuant to the Natural Resources Protection Act, Title 38, Section 480-C); and that the applicant demonstrates that no reasonable access alternative exists on the property.
- C. Piers, Docks, Wharves, Bridges and Other Structures and Uses Extending Over or Beyond the Normal High-Water Line of a Water Body or Within a Wetland.
1. Access from shore shall be developed on soils appropriate for such use and constructed so as to control erosion.
 2. The location shall not interfere with existing developed or natural beach areas.

3. The facility shall be located so as to minimize adverse effects on fisheries.
4. The facility shall be no larger in dimension than necessary to carry on the activity and be consistent with existing conditions, use, and character of the area.
5. No new structure shall be built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland unless the structure requires direct access to the water as an operational necessity.
6. No existing structures built on, over or abutting a pier, dock, wharf or other structure extending beyond the normal high-water line of a water body or within a wetland shall be converted to residential dwelling units.
7. Structures built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland shall not exceed twenty (20) feet in height above the pier, wharf, dock or other structure.

NOTE: Permanent structures projecting into or over water bodies shall require a permit from the Department of Environmental Protection pursuant to the Natural Resources Protection Act, Title 38 M.R.S.A., Section 480-C.

G. Parking Areas

1. Parking areas shall meet the shoreline setback requirements for structures and may be reduced to no less than fifty (50) feet from the normal high-water line or upland edge of a wetland if the Planning Board finds that no other reasonable alternative exists.
2. Parking areas shall be adequately sized for the proposed use and shall be designed to prevent runoff from flowing directly into a water body, and where feasible, to retain all runoff on-site.
3. In determining the appropriate size of proposed parking facilities, the following shall apply:
 - a. Typical parking space: Approximately ten (10) feet wide and twenty (20) feet long, except that parking spaces for a vehicle and boat trailer shall be forty (40) feet long.
 - b. Internal travel aisles: Approximately twenty (20) feet wide.

Section 15. Roads and Driveways

The following standards shall apply to the construction of roads and/or driveways, and drainage systems, culverts and other related features.

1. Roads and driveways shall be set back at least one-hundred (100) feet from the normal high-water line of a great pond, and seventy-five (75) feet from the normal high-water line of other water bodies, tributary streams, or the upland edge of a wetland unless no reasonable alternative exists as determined by the Planning Board. If no other reasonable alternative exists, the Planning Board may reduce the road and/or driveway setback requirement to no less than fifty (50) feet upon clear showing by the applicant that appropriate techniques will be used to prevent sedimentation of the water body. Such techniques may include, but are not limited to the installation of settling basins, and/or the effective use of additional ditch relief culverts and turnouts placed so as to avoid sedimentation of the water body, tributary stream, or wetland.

On slopes of greater than twenty (20) percent the road and/or driveway setback shall be increased by ten (10) feet for each five (5) percent increase in slope above twenty (20) percent.

This paragraph shall neither apply to approaches to water crossings nor to roads or driveways that provide access to permitted structures, and facilities located nearer to the shoreline due to an operational necessity.

2. Existing public roads may be expanded within the legal road right-of-way regardless of its setback from a water body.
3. New permanent roads are not permitted within the shoreland zone along Significant River Segments except:
 - a. To provide access to structures or facilities within the zone; or
 - b. The applicant demonstrates that no reasonable alternative route exists outside the shoreland zone. When roads must be located within the shoreland zone they shall be set back as far as practicable from the normal high-water line and screened from the river by existing vegetation.
4. New roads and driveways are prohibited except to provide access to provide access to permitted uses within the district, or as approved by the Planning Board upon a finding that no reasonable alternative route or location is available outside the district, in which case the road and/or driveway shall be set back as far as practicable from the normal high-water line of a water body tributary stream, or upland edge of a wetland.

5. Road banks shall be no steeper than a slope of two (2) horizontal to one (1) vertical and shall be graded and stabilized in accordance with the provisions for erosion and sedimentation control contained in subsection L.
6. Road grades shall be greater than ten (10) percent except for the short segments of less than two hundred (200) feet.
7. In order to prevent road surface drainage from directly entering water bodies, roads shall be designed, constructed, and maintained to empty onto an unscarified buffer strip at least (50) feet plus two times the average slope, in width between the outflow point of the ditch or culvert and the normal high-water line of a water body, tributary stream, or upland edge of a wetland. Road surface drainage which is directed to an unscarified buffer strip shall be diffused or spread out to promote infiltration of the runoff and to minimize channelized flow of the drainage through the buffer strip.
8. Ditch relief (cross drainage) culverts, drainage dips and water turnouts shall be installed in a manner effective in directing drainage onto unscarified buffer strips before the flow in the road or ditches gains sufficient volume or head to erode the road or ditch. To accomplish this, the following shall apply:

- a. Ditch relief culverts, drainage dips and associated water turnouts shall be spaced along the road at intervals no greater than indicated in the following table:

<u>Road Grade (Percent)</u>	<u>Spacing (Feet)</u>
0-2	250
3-5	200-135
6-10	100-80
11-15	80-60
16-20	60-45
21+	40

- b. Drainage dips may be used in place of ditch relief culverts only where the road grade is ten (10) percent or less.
- c. On road section shaving slopes greater than then (10) percent, ditch relief culverts shall be placed across the road at approximately a thirty (30) degree angle downslope from a line perpendicular to the centerline of the road.
- d. Ditch relief culverts shall be sufficiently sized and properly installed in order to allow for effective functioning and their inlet and outlet ends shall be stabilized with appropriate materials.

9. Ditches, culverts, bridges, dips, water turnouts and other storm water runoff control installations associated with roads shall be maintained on a regular basis to assure effective functioning.

H. Signs

The following provisions shall govern the use of signs in the Shoreland District

1. Name signs shall be permitted, provided such signs shall not exceed two (2) signs per premises.
2. Signs relating to trespassing and hunting shall be permitted without restriction as to number provided that no such sign shall exceed two (2) square feet in area.
3. Signs relating to public safety shall be permitted without restriction.
4. No sign shall extend higher than twenty (20) feet above the ground.
5. Signs may be illuminated only by shielded, non-flashing lights.

G. Storm Water Runoff

1. All new construction and development shall be designed to minimize storm water runoff from the site in excess of the natural predevelopment conditions. Where possible, existing natural runoff control features, such as berms, swales, terraces and wooded areas shall be retained in order to reduce runoff and encourage infiltration of stormwaters.
2. Storm water runoff control systems shall be maintained as necessary to ensure proper functioning.

H. Septic Waste Disposal

1. All subsurface sewage disposal systems shall be installed in conformance with the State of Maine Subsurface Wastewater Disposal Rules (Rules).

I. Essential Services

1. Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors.
2. The installation of essential services is not permitted except to provide services to a permitted use or except where the applicant demonstrates that no reasonable alternative exists. Where permitted, such structures and facilities shall be located so as to minimize any diverse impacts on surrounding uses and resources, including visual impacts.

J. Timber Harvesting

1. Within the strip of land extending 75 feet inland from the normal high-water line in a shoreland area abutting a great pond there shall be no timber harvesting, except to remove safety hazards.
2. Except in areas as described in Paragraph 1 above, timber harvesting shall conform with the following provisions:
 - a. Selective cutting of no more than forty (40) percent of the total volume of trees four (4) inches or more in diameter measured at 4 1/2 feet above ground level on any lot in any ten (10) year period is permitted. In addition:
 - i. Within one-hundred (100) feet, horizontal distance of the normal high-water line of a great pond or a river flowing to a great pond and within seventy-five (75) feet, horizontal distance, of the normal high-water line of other water bodies, tributary streams, or the upland edge of a wetland, there shall be no clearcut openings and a well-distributed stand of trees and other vegetation, including existing ground cover, shall be maintained.
 - ii. At distances greater than one-hundred (100) feet, horizontal distance of a great pond or a river flowing to a great pond and greater than seventy-five (75) feet, horizontal distance, of the normal high-water line of other water bodies, or the upland edge of a wetland, harvesting operations shall not create single clearcut openings greater than ten-thousand (10,000) square feet in the forest canopy where such openings exceed five-thousand (5,000) square feet they shall be at least one hundred (100) feet apart. Such clearcut openings shall be included in the calculation of total removal. For the purposes of these standards volume may be considered to be equivalent to basal area.
 - b. Timber harvesting operations exceeding the 40% limitation in paragraph a above, may be allowed by the planning board upon a clear showing, including a forest management plan signed by a Maine licensed professional forester, that such an exception is necessary for good forest management and will be carried out in accordance with the purposes of this Ordinance. The planning board shall notify the Commissioner of the Department of Environmental Protection of each exception allowed, within fourteen (14) days of the planning board's decision.

- c. No accumulation of slash shall be left within fifty (50) feet of the normal high-water line of a water body. In all other areas slash shall either be removed or disposed of in such a manner that it lies on the ground and no part thereof extends more than four (4) feet above the ground. Any debris that falls below the normal high-water line of a water body shall be removed.
- d. Timber harvesting equipment shall not use stream channels as travel routes except when:
 - i. surface waters are frozen; and
 - ii. The activity will not result in any ground disturbances.
- e. All crossings of flowing water shall require a bridge or culvert, except in areas with low banks and channel beds which are composed of gravel, rock or similar hard surface which would not be eroded or otherwise damaged.
- f. Skid trail approaches to water crossings shall be located and designed so as to prevent water runoff directly entering the water body or tributary stream. Upon completion of timber harvesting, temporary bridges and culverts shall be removed and areas of exposed soil revegetated.
- g. Except for water crossing, skid trails and other sites where the operation of machinery used in timber harvesting results in the exposure of mineral soil shall be located such that an unsacrificed strip of vegetation of at least seventy-five (75) feet in width for slopes up to ten (10) percent shall be retained between the exposed mineral soil and the normal high-water line of a water body or upland edge of a wetland. For each ten (10) percent increase in slope, the unsacrificed strip shall be increased by twenty (20) feet. The provisions of this paragraph apply only to a face slopping toward the water body or wetland, provided, however, that no portion of such exposed mineral soil on a back face shall be closer than twenty-five (25) feet from the normal high-water line of a water body or upland edge of a wetland.

K. Clearing of Vegetation for Development

- 1. within a shoreland area abutting a great pond, there shall be no cutting of vegetation within the strip of land extending 75 feet, horizontal distance, inland from the normal high-water line, except to remove safety hazards.

Elsewhere, the clearing of vegetation shall be limited to that which is necessary for uses expressly authorized.

2. Except in areas as described in Paragraph 1,, above, and except to allow for the development of permitted uses, within a strip of land extending one-hundred (100) feet, horizontal distance, inland from the normal high-water line of a great pond or a river flowing to a great pond and seventy-five (75) feet, horizontal distance, from any other water body, tributary stream, or the upland edge of a wetland, a buffer strip of vegetation shall be preserved as follows:

- a. There shall be no cleared opening greater than 250 square feet in the forest canopy as measured from the outer limits of the tree crown. However, a footpath not exceeding ten (10) feet in width as measured between tree trunks is permitted provided that a cleared line of sight to the water through the buffer strip is not created. Adjacent to a great pond or stream or river flowing to a great pond the width of the foot path shall be limited to six (6) feet.
- b. Selective cutting of trees within the buffer strip is permitted provided that a well distributed stand of trees and other vegetation is maintained. For the purposes of this section a "well-distributed stand of trees and other vegetation" adjacent to a great pond or a river or stream flowing to a great pond shall be defined as maintaining a rating score of 12 or more in any 25-foot by 25-foot square (625 square feet) area as determined by the following rating system:

<u>Diameter of Tree at 4-1/2 feet</u>	
<u>Above Ground Level (inches)</u>	<u>Points</u>
2 - 4 in.	1
>4-12 in.	2
>12 in.	4

Adjacent to the other water bodies, tributary streams, and wetlands, a "well-distributed stand of trees and other vegetation" is defined as maintaining a minimum rating score of 8 per 25-foot square area.

Notwithstanding the e above provisions, no more than 40% of the total volume of trees four (4) inches or more in diameter, measured at 4 1/2 feet above ground level may be removed in any ten (10) year period.

- c. In order to protect water quality and wildlife habitat, adjacent to great ponds and streams and rivers which flow to great ponds, existing vegetation under three (3) feet in height and other ground cover shall not be removed, except to provide for a footpath or other permitted uses as described in paragraphs 2 and 2a above.
- d. Pruning of tree branches, on the bottom 1/3 of the trees is permitted.

- e. In order to maintain a buffer strip of vegetation, when the removal of storm-damaged, diseased, unsafe, or dead trees results in the creation of cleared openings, these openings shall be replanted with native tree species unless existing new tree growth is present.

The provisions contained in paragraph 2 above shall not apply to those portions of public recreational facilities adjacent to public swimming areas. Cleared areas, however, shall be limited to the minimum area necessary.

3. At distances greater than one hundred (100) feet, horizontal distance, from a great pond or a river flowing to a great pond, and seventy-five (75) feet, horizontal distance, from the normal high-water line of any other water body, tributary stream, or the upland edge of a wetland, except to allow for the development of permitted uses, there shall be permitted on any lot, in any ten (10) year period, selective cutting of not more than forty (40) percent of the volume of trees four (4) inches or more in diameter, measured 4 1/2 feet above ground level. Tree removal in conjunction with the development of permitted uses shall be included in the forty (40) percent calculation. For the purposes of these standards volume may be considered to be equivalent to basal area.

In no event shall cleared openings for development, including but not limited to , principal and accessory structures, driveways and sewage disposal areas, exceed in the aggregate, 25% of the lot area or ten thousand (10,000) square feet, whichever is greater, including land previously developed.

4. Cleared openings legally in existence on the effective date of this Ordinance may be maintained, but shall not be enlarged, except as permitted by this Ordinance.
5. Fields which have reverted to primarily shrubs, trees, or other woody vegetation shall be regulated under the provisions of this section.

L. Erosion and Sedimentation Control

1. All activities which involve filling, grading, excavation or other similar activities which result in unstabilized soil conditions and which require a permit shall require a written soil erosion and sedimentation control plan. The plan shall be submitted to the permitting authority for approval and shall include, where applicable, provisions for:
 - a. Mulching and revegetation of disturbed soil.
 - b. Temporary runoff control features such as hay bales, silt fencing or diversion ditches.
 - c. Permanent stabilization structures such as retaining walls or riprap.

2. In order to create the least potential for erosion, development shall be designed to fit with the topography and soils of the site. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible, and natural contours shall be followed as closely as possible.
3. Erosion and sedimentation control measures shall apply to all aspects of the proposed project involving land disturbance, and shall be in operation during all stages of the activity. The amount of exposed soil at every phase of construction shall be minimized to reduce the potential for erosion.
4. Any exposed ground area shall be temporarily or permanently stabilized within one (1) week from the time it was last actively worked, by use of riprap, sod, seed, and mulch, or other effective measures. In all cases permanent stabilization shall occur within nine (9) months of the initial date of exposure. In addition:
 - a. Where mulch is used, it shall be applied at a rate of at least one (1) bale per five hundred (500) square feet and shall be maintained until a catch of vegetation is established.
 - b. Anchoring the mulch with netting, peg and twine or other suitable method may be required to maintain the mulch cover.
 - c. Addition measures shall be taken where necessary in order to avoid siltation into the water. Such measures may include the use of staked hay bales and/or silt fences.
5. Natural and man-made drainage ways and drainage outlets shall be protected from erosion from water flowing through them. Drainageways shall be designed and constructed in order to carry water from a twenty-five (25) year storm or greater, and shall be stabilized with vegetation or lined with rip-rap.

M. Soils

All land uses shall be located on soils in or upon which the proposed uses or structures can be established or maintained without causing adverse environmental impacts, including severe erosion, mass soil movement, improper drainage, and water pollution, whether during or after construction. Proposed uses requiring subsurface waste disposal, and other similar intensive land uses, shall require a soil report based on an on-site investigation and be prepared by state-certified professionals. Certified persons may include Maine Certified Soil Scientists, Maine Registered Professional Engineers, Maine State Certified Geologists and other persons who have training and experience in the recognition and evaluation of soil properties. The report shall be based upon the analysis of the characteristics of the soil and surrounding land and water areas, maximum ground water elevation, presence of ledge, drainage conditions, and other pertinent data which the evaluator deems appropriate. The soils report shall include recommendations for a proposed use to counteract soil limitations where they exist.

Mineral exploration and extraction shall not be permitted.

N. Water Quality

No activity shall deposit on or into the ground or discharge to the waters of the State any pollutant that, by itself or in combination with other activities or substances will impair designated uses or the water classification of the water body.

Section 16. Administration

A. Administering Bodies and Agents

1. Code Enforcement Officer
2. Board of Appeals
3. Planning Board
4. Administration of this Ordinance shall be in accordance with Article Twelve of the East Millinocket Land Use Ordinance.

B. Permits Required


After the effective date of this Ordinance no person shall, without first obtaining a permit, engage in any activity or use of land or structure requiring a permit in which such activity or use would occur; or expand, change, or replace an existing use or structure; or renew a discontinued nonconforming use.

A permit is not required for the replacement of an existing road culvert as long as the replacement culvert is:


1. Not more than one standard culvery size wider in diameter than the culvert being replaced;
2. Not more than 25% longer than the culvert being replaced;
3. Not longer than 75 feet; and
4. provided that adequate erosion control measures are taken to prevent sedimentation of water, and that the crossing does not block fish passage in the water course.

C. Permit Application

1. Every applicant for a permit shall submit a written application, including a scaled site plan, on a form provided by the municipality, to the appropriate official as indicated in Section 13.

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2. All applications shall be signed by the owner or owners of the property or other person authorizing the work, certifying that the information in the application is complete and correct. If the person signing the application is not the owner or lessee of the property then that person shall submit a letter of authorization from the owner or lessee.
 3. All applications shall be dated, and the Code Enforcement Officer or Planning Board, as appropriate, shall note upon each application, shall note upon each application the date and time of its receipt.
 4. If the property is not served by a public sewer, a valid plumbing permit or a completed application for a permit, including the site evaluation approved by the Plumbing Inspector, shall be submitted whenever the nature of the proposed structure would require the installation of a subsurface sewage disposal system.

B. Procedure for Administering Permits



Within 35 days of the date of receiving a written application, the Planning Board or Code Enforcement Officer, as indicated in Section 13, shall notify the applicant in writing either that the application is a complete application, or, if the application is incomplete, that specified additional material is needed to make the application complete. The Planning Board or the Code Enforcement Officer, as appropriate, shall approve, approve with conditions, or deny all permit applications in writing within 35 days of receiving a completed application. However, if the Planning Board has a waiting list of applicants, a decision on the application shall occur within 35 days after the first available date on the Planning Board's agenda following receipt of the completed application, or within 35 days of the public hearing, if one is held. Permits shall be approved if the proposed use or structure is found to be in conformance with the purposes and provisions of this Ordinance.

The applicant shall have the burden of proving that the proposed land use activity is in conformity with the purposes and provisions of this Ordinance.

After the submission of a complete application to the Planning Board, the Board shall approve an application or approve it with conditions if it makes a positive finding based on the information presented that the proposed use:

1. Will maintain safe and healthful conditions;
2. Will not result in water pollution, erosion, or sedimentation to surface waters;
3. Will adequately provide for the disposal of all wastewater;

4. Will not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;
5. Will conserve shore cover and visual, as well as actual, points of access to inland waters;
6. Will protect archaeological and historic resources as designated in the comprehensive plan;
7. Will avoid problems associated with flood plain development and use; and
8. Is in conformance with the provisions of Section 14, Land Use Standards.

If a permit is either denied or approved with conditions, the reasons as well as conditions shall be stated in writing. No approval shall be granted for an application involving a structure if the structure would be located in an unapproved subdivision or would violate any other local ordinance or regulation or any State law which the municipality is responsible for enforcing.

E. Expiration of Permit

Following the issuance of a permit, if no substantial start is made in construction of in the use of the property within one year of the date of the permit, the permit shall lapse and become void.

F. Installation of Public Utility Service

No public utility, water district, sanitary district or any utility company of any kind may install services to any new structure located in the shoreland zone unless written authorization attesting to the validity and currency of all local permits required under this or any previous Ordinance, has been issued by the appropriate municipal officials. Following installation of service, the company or district shall forward the written authorization to the municipal officials, indicating that installation has been completed.

G. Appeals

Appeals are governed by Sections 12.8, 12.9 of the East Millinocket Land Use Ordinance.

The Board of Appeals may grant a variance for the construction or installation of structures of equipment solely intended to improve accessibility for a person living on the property who has a disability as defined in the Maine Human Rights Act MRSA Title 5, Section 4553. The application will not have to meet the traditional undue hardship test.

A copy of all variances granted by the Board of Appeals shall be submitted to the Department of Environmental Protection within fourteen (14) days of the decision.

H. Enforcement

1. Nuisances

Any violation of this Ordinance shall be deemed to be a nuisance.

2. Code Enforcement Officer

- a. It shall be the duty of the code Enforcement Officer to enforce the provisions of this Ordinance. If the code Enforcement Officer shall find that any provision of this Ordinance is being violated, he or she shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct it, including discontinuance of illegal use of land, buildings or structures, or work being done, removal of illegal buildings or structures, and abatement of nuisance conditions. A copy of such notices shall be submitted to the municipal officers and be maintained as a permanent record.
- b. The Code Enforcement Officer shall conduct on-site inspections to insure compliance with all applicable laws and conditions attached to permit approvals. The Code Enforcement shall also investigate all complaints of alleged violations of this Ordinance.
- c. The Code Enforcement Officer shall keep a complete record of all essential transactions of the office, including applications submitted, permits granted or denied, variances granted or denied, revocation actions, revocation of permits, appeals, court actions, violations investigated, violations found, and fees collected. On a biennial basis, a summary of this record shall be submitted to the Director of the Bureau of Land Quality Control within the Department of Environmental Protection.

3. Legal Actions

When the above action does not result in the correction or abatement of the violation or nuisance condition, the Municipal Officers, upon notice from the Code Enforcement Officer, are hereby directed to institute any and all actions and proceedings, either legal or equitable, including seeking injunctions of violations and the imposition of fines, that may be appropriate or necessary to enforce the provisions of this Ordinance in the name of the municipality. The municipal officers, or their authorized agent, are hereby authorized to enter into administrative consent agreements for the purpose of eliminating violations of this ordinance and recovering fines without Court action.

Such agreements shall not allow an illegal structure or use to continue unless there is clear and convincing evidence that the illegal structure or use was constructed or conducted as a direct result of erroneous advice given by an authorized municipal official and there is no evidence that the owner acted in bad faith, or unless the removal of the structure or the use will result in a threat or hazard to public health and safety or will result in substantial environmental damage.

4. Fines

Any person, including but not limited to a landowner, a landowner's agent or a contractor, who orders or conducts any activity in violation of this Ordinance shall be penalized in accordance with Title 30-A, Maine revised Statutes Annotated, Subsection 4452.

Section 17. Definitions

ACCESSORY STRUCTURE OR USE - a use or structure which is incidental and subordinate to the principal use or structure. Accessory uses, when aggregated shall not subordinate the principal use of the lot. A deck or similar extension of the principal structure or a garage attached to the principal structure by a roof or a common wall is considered part of the principal structure.

AGRICULTURE - the production, keeping or maintenance for sale or lease, of plants and/or animals, including but not limited to: forages and sod crops; grains and seed crops; dairy animals and dairy products; poultry and poultry products; livestock; fruits and vegetables; and ornamental and green house products. Agriculture does not include forest management and timber harvesting activities.

AGGRIEVED PARTY - an owner of land whose property is directly or indirectly affected by the granting or denial of a permit or variance under this Ordinance; a person whose land abuts land for which a permit or variance has been granted; or any other person or group of persons who have suffered particularized injury as a result of the granting or denial of such permit or variance.

AQUACULTURE - the growing or propagation of harvestable freshwater, estuarine, or marine plant or animal species.

BOAT LAUNCHING FACILITY - a facility designed primarily for the launching and landing of watercraft, and which may include an access ramp, docking area, and parking spaces for vehicles and trailers.

CAMPGROUND - any area or tract of land to accommodate two (2) or more parties in temporary living quarters, including, but not limited to tents, recreational vehicles or other shelters.

COMMERCIAL USE - the use of lands, buildings, or structures other than a "home occupation," defined below, the intent and result of which activity is the production of income from the buying and selling of goods and/or services, exclusive of rental of residential buildings and/or dwelling units.

DIMENSIONAL REQUIREMENTS - numerical standards relating to spatial relationships including but not limited to setback, lot area, shore frontage and height.

DRIVEWAY - vehicular access-way less than five hundred (500) feet in length serving two lots or less.

EMERGENCY OPERATIONS - operations conducted for the public health, safety or general welfare, such as protection of resources from immediate destruction or loss, law enforcement, and operations to rescue human beings, property and livestock from the threat of destruction or injury.

ESSENTIAL SERVICES - the construction, alteration or maintenance of gas, electrical or communication facilities; steam, fuel electric power or water transmission or distribution lines, towers and related equipment; telephone cables or lines, poles and related equipment; gas, oil, water, slurry or other similar pipelines; municipal sewage lines, collection or supply systems; and associated storage tanks. Such systems may include towers, poles, wires, mains, drains, pipes, conduits, cables, fire alarms and police call boxes, traffic signals, hydrants and similar accessories, but shall not include service drops or buildings which are necessary for the furnishing of such services.

EXPANSION OF A STRUCTURE - an increase in the floor area or volume of a structure, including all extensions such as, but not limited to attached: decks, garages, porches and greenhouses.

EXPANSION OF USE - the addition of months to a use's operating season; or the use of more floor area or ground area devoted to a particular use.

FAMILY - one or more persons occupying a premises and living as a single housekeeping unit.

FLOOR AREA - the sum of the horizontal areas of the floor(s) of a structure enclosed by exterior walls, plus the horizontal area of any unenclosed portions of a structure such as porches and decks.

FORESTED WETLAND - a freshwater wetland dominated by woody vegetation that is six (6) meters tall or taller.

FOREST MANAGEMENT ACTIVITIES - timber cruising and other forest resource evaluation activities, pesticide or fertilizer application, management planning activities, timber stand improvement, pruning, regeneration of forest stands, and other similar or associated activities, exclusive of timber harvesting and the construction, creation or maintenance of roads.

FOUNDATION - the supporting substructure of a building or other structure including but not limited to basements, slabs, sills, post or frostwalls.

FRESHWATER WETLAND - freshwater swamps, marshes, bogs and similar areas other than forested wetlands which are:

1. Of ten or more contiguous areas; or of less than 10 contiguous acre and adjacent to a surface water body, excluding any river, stream or brook such that in a natural state, the combined surface area is in excess of 10 acres; and
2. Inundated or saturated by surface or ground water at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils.

Freshwater wetlands may contain small stream channels or inclusions of land that do not conform to the criteria of this definition.

FUNCTIONALLY WATER-DEPENDENT USES - those uses that require, for their primary purpose, location on submerged land or that require direct access to, or location in, coastal and inland waters and which cannot be located away from these waters. The uses include, but are not limited to commercial and recreational fishing and boating facilities, finfish and shellfish processing, fish storage and retail and wholesale fish marketing facilities, navigation aides, basins and channels, industrial uses dependent upon water-borne transportation or requiring large volumes of cooling or processing water and which cannot reasonably be located or operated at an inland site.

GREAT POND - any inland body of water which in a natural state has a surface area in excess of ten acres, and any inland body of water artificially formed or increased which has a surface area in excess of thirty (30) acres except for the purposes of this Ordinance, where the artificially formed or increased inland body of water is completely surrounded by land held by a single owner.

HEIGHT OF STRUCTURE - the vertical distance between the mean original grade at the downhill side of the structure and the highest point of the structure, excluding chimneys, steeples, antennas, and similar appurtenances which have no floor area.

HOME OCCUPATION - an occupation or profession which is customarily conducted on or in a residential structure or property and which is 1) clearly incidental to and compatible with the residential use of the property and surrounding residential uses; and 2) which employs no more than two (2) persons other than family members residing in the home.

INDIVIDUAL PRIVATE CAMPSITE - an area of land which is not associated with a campground, but which is developed for repeated camping by only one group not to exceed ten (10) individuals and which involves site improvements which may include but not be limited to gravel pads, parking areas, fire places, or tent platforms.

INDUSTRIAL - the assembling, fabrication, finishing, manufacturing, packaging or processing of goods, or the extraction of minerals.

LOT AREA - the area of land enclosed within the boundary lines of a lot, minus land below the normal high-water line of a water body or upland edge of a wetland and areas beneath roads serving more than two lots.

MARINA - a business establishment having frontage on navigable water and, as its principal use, providing for hire offshore moorings or docking facilities for boats, and which may also provide accessory services such as boat and related sales, boat repair and construction, indoor and outdoor storage of boats and marine equipment, boat and tackle shops and marine fuel service facilities.

MARKET VALUE - the estimated price a property will bring in the open market and under prevailing market conditions in a sale between a willing seller and a willing buyer, both conversant with the property and with prevailing general price levels.

MINIMUM LOT WIDTH - the closest distance between the side lot lines of a lot.

MINERAL EXPLORATION - hand sampling, test boring, or other methods of determining the nature or extent of mineral resources which create minimal disturbance to the land and which include reasonable measures to restore the land of its original condition.

MINERAL EXTRACTION - any operation within any twelve (12) month period which removes more than one hundred (100) cubic yards of soil, topsoil, loam, sand, gravel, clay, rock, peat, or other like material from its natural location and to transport the product removed, away from the extraction site.

MULTI-UNIT RESIDENTIAL - a residential structure containing three (3) or more residential dwelling units.

NON-CONFORMING LOT - a single lot of record which, at the effective date of adoption or amendment of this Ordinance, does not meet the area, frontage, or width requirements of the district in which it is located.

NON-CONFORMING STRUCTURE - a structure which does not meet any one or more of the following dimensional requirements: setback, height, or lot coverage, but which is allowed solely because it was lawful existence at the time this Ordinance or subsequent amendments took effect.

NON-CONFORMING USE - use of buildings, structures, premises, land or parts thereof which is not permitted in the district in which it is situated, but which is allowed to remain solely because it was in lawful existence at the time this Ordinance or subsequent amendments took effect.

NORMAL HIGH-WATER LINE - that line which is apparent from visible markings, changes, in the character of soils due to prolonged action of the water or changes in, and which distinguishes between predominantly aquatic and predominantly terrestrial land. In the case of wetlands adjacent to rivers and great ponds, the normal high-water line is the upland edge of the wetland, and not the edge of the open water.

PERSON - an individual, corporation, governmental agency municipality, trust, estate, partnership, association, two or more individuals having a joint or common interest, or other legal entity.

Piers, docks, wharfs, bridges and other structures and uses extending over or beyond the normal high-water line or within a wetland -

Temporary: structures which remain in or over the water for less than seven (7) months in any period of twelve (12) consecutive months.

Permanent: Structures which remain in or over the water for seven (7) months or more in any period of twelve (12) consecutive months.

PRINCIPAL STRUCTURE - the building other than one which is used for purposes wholly incidental or accessory to the use of another building or use on the same premises.

PRINCIPAL USE - a use other than one which is wholly incidental or accessory to another use on the same premises.

PUBLIC FACILITY - any facility, including but not limited to, buildings, property, recreation areas, and roads, which are owned, leased or otherwise operated, or funded by a governmental body or public entity.

RECENT FLOOD PLAIN SOILS - the following soil series as described and identified by the National Cooperative Soil Survey:

Alluvial	Podunk	Hadley	Sunday	Ondawa
Fryeburg	Suncook	Medomak	Charles	Saco
Lovewell	Cornish	Rumney	Limerick	Winooski

RECREATIONAL FACILITY - a place designed and equipped for the conduct of sports, leisure time activities, and other customary and usual recreational activities, excluding boat launching facilities.

RECREATIONAL VEHICLE - a vehicle or an attachment to a vehicle designed for temporary sleeping or living quarters for one or more persons, and which may include a pick-up camper, travel trailer, tent trailer, camp trailer, and motor home. In order to be considered as a vehicle and not as a structure, the unit must remain with its tires on the ground, and must be registered with the State Division of Motor Vehicles.

REPLACEMENT SYSTEM - a system intended to replace: 1.) an existing system which is either malfunctioning or being upgraded with no significant change of design flow or use of the structure, or 2.) any existing overboard wastewater discharge.

RESIDENTIAL DWELLING UNIT - a room or group of rooms designed and equipped exclusively for use as permanent, seasonal, or temporary living quarters for only one family. The term shall include mobile homes, but not recreational vehicles.

RIPRAP - rocks, irregularly shaped, and at least six (6) inches in diameter, used for erosion control and soil stabilization, typically used on ground slopes of two (2) units horizontal to one (1) unit vertical or less.

RIVER - a free-flowing body of water including its associated flood plain wetlands from that point at which it provides drainage for a watershed of twenty five (25) square miles to its mouth.

ROAD - a route or track consisting of a bed of exposed mineral soil, gravel, asphalt, or other surfacing material constructed for or created by the repeated passage of motorized vehicles.

SERVICE DROP - any utility line extension which does not cross or run beneath any portion of a water body provided that:

1. in the case of electric service
 - a. the placement of wires and/or the installation of utility poles is located entirely upon the premises of the customer requesting service or upon a roadway right-of-way; and
 - b. the total length of the extension is less than one thousand (1,000) feet.
2. in the case of telephone service
 - a. the extension, regardless of length, will be made by the installation of telephone wires to existing utility poles, or
 - b. the extension, requiring the installation of new utility poles or placement underground is less than one thousand (1,000) feet in length.

SETBACK - the nearest horizontal distance from the normal high-water line to the nearest part of a structure, road, parking space or other regulated object or area.

SHORE FRONTAGE - the length of a lot bordering on a water body measured in a straight line between the intersections of the lot lines with the shoreline at a normal high-water elevation.

SHORELAND ZONE - the land area located within two hundred and fifty (250) feet, horizontal distance, of the normal high-water line of any great pond, river, or saltwater body; within 250 feet of the upland edge of a coastal or freshwater wetland; or within seventy-five (75) feet of the normal high-water line of a stream.

SIGNIFICANT RIVER SEGMENTS - See Title 38 MRSA Sec. 437.

STREAM - a free-flowing body of water from the outlet of a great pond or the confluence of two (2) perennial streams as depicted on the most recent edition of a United States Geological Survey 7.5 minute series topographic map, or if not available, a 15-minute series topographic map, to the point where the body of water becomes a river or flows to another water or wetland within the shore area.

STRUCTURE - anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground, exclusive of fences. The term includes structures temporarily or permanently located, such as decks and satellite dishes.

SUBSTANTIAL START - completion of thirty (30) percent of a permitted structure or use measured as a percentage of estimated total cost.

SUBSURFACE SEWAGE DISPOSAL SYSTEM - a collection of treatment tank(s), disposal area(s), holding tank(s) and pond(s), surface spray system(s), cesspool(s), well(s), surface ditch(es), alternative toilet(s), or other devices and associated piping designed to function as a unit for the purpose of disposing of wastes or wastewater on or beneath the surface of the earth. The term shall not include any wastewater discharge system licensed under 38 MRSA Section 414, any surface wastewater disposal system licensed under 38 MRSA Section 413 Subsection 1-A, or any public sewer. The term shall not include a wastewater system designed to treat wastewater which is in whole or in part hazardous waste as defined in 38 MRSA Chapter 13, subchapter 1.

SUSTAINED SLOPE - a change in elevation where the referenced percent grade is substantially maintained or exceeded throughout the measured area.

TIMBER HARVESTING - the cutting and removal of trees from their growing site, and the attendant operation of cutting and skidding machinery but not the construction or creation of roads. Timber harvesting does not include the clearing of land for approved construction.

TRIBUTARY STREAM - a channel between defined banks created by the action of surface water, whether intermittent or perennial, and which is characterized by the lack of upland vegetation or presence of aquatic vegetation and by the presence of a bed devoid of topsoil containing waterborne deposits on exposed soil, parent material or bedrock, and which flows to a water body or wetland as defined. This definition does not include the term "stream" as defined elsewhere in this Ordinance, and only applies to that portion of the tributary stream located within the shoreland zone of the receiving water body or wetland.

UPLAND EDGE - the boundary between upland and wetland.

VEGETATION - all live trees, shrubs, ground cover, and other plants including without limitation, trees both over and under 4 inches in diameter, measured at 4 1/2 above ground level.

VOLUME OF A STRUCTURE - the volume of all portions of a structure enclosed by roof and fixed exterior walls as measured from the exterior faces of these walls and roof.

WATER BODY - any great pond, river, stream or tidal area

WATER CROSSING - any project extending from one bank to the opposite bank of a river or stream, whether under, through, or over the water course. Such projects include but may not be limited to roads, fords, bridges, culverts, water lines, sewer lines, and cables as well as maintenance work on these crossings.

WETLAND - a freshwater or coastal wetland

WETLANDS ASSOCIATED WITH GREAT PONDS AND RIVERS - wetlands contiguous with or adjacent to a great pond or river, and which during normal high water, are connected by surface water to the great pond or river. Also, included are wetlands which are separated from the great pond or river by a berm, causeway, or similar feature less than 100 feet in width, and which have a surface elevation at or below the normal high water line of the great pond or river. Wetlands associated with great ponds or rivers are considered to be a part of that great pond or river.

**APPENDIX C
LAND USE MAPS
OF THE
TOWN OF EAST MILLINOCKET**

DISTRICT FOUR: THE RESOURCE PROTECTION DISTRICT

The Resource Protection District incorporates all open-space lands of East Millinocket which are deemed important to the welfare of the residents of the Town, namely, the aquifer system of the East Branch of the Penobscot River, from which hails our municipal water supply. The Ordinance limits the uses of these areas to certain recreation and resource utilization activities. See Article Four (4) of the Land Use Ordinance for specific details.

BOUNDARIES:

The Resource Protection District in East Millinocket identifies the East Branch-Penobscot River Watershed as illustrated by Great Northern Paper Company in its GEOHYDROLOGIC STUDY OF THE DOLBY LANDFILL SITES, November, 1981. This area is bounded to the North and East by the Shoreland District, and to the South and West by Hathaway Ledge, a ridge of land approximately 300-400 feet high which forms the divide for the Eastern and Northern boundary of the Hathaway Brook Watershed.

The Resource Protection District is deemed critical in protecting the municipal water source of East Millinocket, the Hathaway Wells. The Planning Board will take immediate and appropriate action to any proposed infringement of this district.

DISTRICT FIVE: THE SHORELAND DISTRICT

The Shoreland District incorporates all land areas within 250 feet, horizontal distance, of the normal high water mark of any pond or river body in the Town of East Millinocket. We are mandated by State law to include a portion of the East Branch of the Penobscot River. See Appendix A, and Article Five (5) of the Ordinance.

BOUNDARIES:

There are three distinct land areas:

1. East Branch-Penobscot River portion through Millinocket: 250 feet to either shore of the river. This is a roughly triangular area formed on its legs by the North and East border of the township lines, and on its hypotenuse by the Resource Protection District.
2. Partridge Brook Flowage: 250 feet inland from the shore of the flowage, bounded on the South by Route 11/157.
3. Dolby Pond-West Branch Penobscot River Portion through East Millinocket: 250 feet from shore of Dolby Pond, bounded on the East by Route 11/157, and terminating of the South at Dolby Dam.

DISTRICT SIX: RESIDENTIAL DISTRICT

The Residential District is established in Article Six (6) of the Land Use Ordinance to protect the housing interests of the Town's Citizens.

BOUNDARIES:

The Residential District is bounded to the North by North and Orchard Streets; to the East by Spring Street, Forest Avenue and The East Millinocket Cemetery; to the South by Main Street and the Commercial District; and to the West by Independence Lane.

Schenck High Reserved Land behind the school bounded to the North by the Utility Pole line, to the East by Hathaway Road, and to the West by an imaginary line continued from Birch Street to the Utility Pole line.

The Planning Board deems it necessary to mention that future residential development is physically restrained by the presence of a high voltage utility line which circumscribes the Town. Relocation of this utility line is an essential component of safe future residential development. Also of importance is physical slope of the land, which dictates proper sewer and storm drainage. Based on current watershed studies, most development must be convenience be Westward.

DISTRICT SEVEN: PUBLIC, SEMI-PUBLIC AND INSTITUTIONAL

The Public, Semi-Public and Institutional District incorporates a varied amount of small land areas which protect and preserve those areas of the Town occupied as public and non-profit institutional buildings or uses.

BOUNDARIES:

The boundaries of this district fall into two major categories: 1) Grandfathered institutions and 2) Mandated Reserved Public, Semi-Public and Institutional District.

1. "Grandfathered Institutions" are all churches or other places of worship, parish houses, rectories, convents or other religious institutions; the Municipal Building and Town Library; the Public Safety Building; Opal Myrick and Schenck High School; the Town Cemetery; the Recreation Complex; the Municipal transfer site; the Department of Public Works; and the Park. This includes all land owned by above mentioned institutions.
2. "Mandated Reserved Public, Semi-Public and Institutional District" are three parcels of land deemed of public interest:
 - a) Dolby Orchard Park, a parcel of land with scenic and historical significance located near Dolby Pond; bounded to the South by the B&A Railroad bed, to the North by Old Dolby Road, to the West by the Shoreland District and to the East by Dolby Dam Access Road.
 - b) Spencer Brook Park, a parcel of land with scenic and recreational potential, located 250 feet either side of Spencer Brook running from the B&A railroad bed northward one mile.

All new institutions desiring to locate within the Town after the enactment of this Ordinance must locate within the Schenck High Reserved Land or seek to obtain Planning Board approval for "Contract" or "Spot" Zoning.

DISTRICT EIGHT: THE COMMERCIAL DISTRICT

The Commercial District is established to gather businesses into a public shopping district, apart from the privacy of the Residential District.

BOUNDARIES:

The Commercial District is divided into two distinct entities: the "Old" and "New" districts.

The "Old" Commercial District is restricted to either side of Main Street -- North to Park Street, and South to the B&A railroad bed. Eastern boundaries are Maple Street and Western boundaries are Western Avenue. There are individual, grandfathered exceptions West of Cone Street, East of Main Street and on Spruce Street.

The "New" Commercial District is a proposed commercial development either side of Route 11/157 bounded on the East by the Public Safety Building, on the West by Dolby #1 Landfill Road, to the South by the B&A Railroad and Old Dolby Road, except the area designated as "Industrial Park District" (as described in a deed recorded in the Penobscot Registry of Deeds from Katahdin Regional Development Corporation to the Inhabitants of the Town of East Millinocket) and to the North by 250 feet from the shoulder of Route 11/157.

The Planning Board expects that this new Commercial Development will not be strip-development in nature, and that access roads are incorporated. The Board shall be liberal in interpretation as to the type of business located.

DISTRICT NINE-A: THE INDUSTRIAL DISTRICT

The Industrial District incorporates all portions of the Great Northern Paper Company millyard and associated lands, including the Dolby Landfill sites.

BOUNDARIES:

The Industrial District is bounded on the East by the Town wastewater treatment facility, on the North by the B&A railroad bed, on the West by Dolby Dam access road, and on the South by the West Branch of the Penobscot River.
of the Great Nor

Consideration will be given to the location of bonafide industrial development in the Southern portion of the "New" Commercial District.

DISTRICT NINE-B: THE INDUSTRIAL PARK DISTRICT

The Industrial Park District is established to gather businesses into an industrial park area.

BOUNDARIES:

The Industrial Park District is a certain parcel of land which is located approximately six hundred feet (600'), more or less, North of the North end of Dolby Dam, so-called, and also where the North bound of the B&A Railroad intersects with the East bound of the old access road leading from Route #157 to Dolby; thence Northwesterly across "Old Route 157" a distance of one thousand two hundred and sixty feet (1,260'), more or less, to a point; thence Northwesterly a distance of nine hundred and thirty feet (930'), more or less, to a point in the South bound of Route 157; thence Easterly by and along said South bound of Route 157, a distance of three thousand and one hundred feet (3,100'), more or less, to a point; thence Southerly two hundred feet (200'), more or less, to the North bound of the beforementioned B&A Railroad's rights-of-way; thence Westerly by and along said North bound a distance of three thousand two hundred thirty feet (3,230'), more or less.

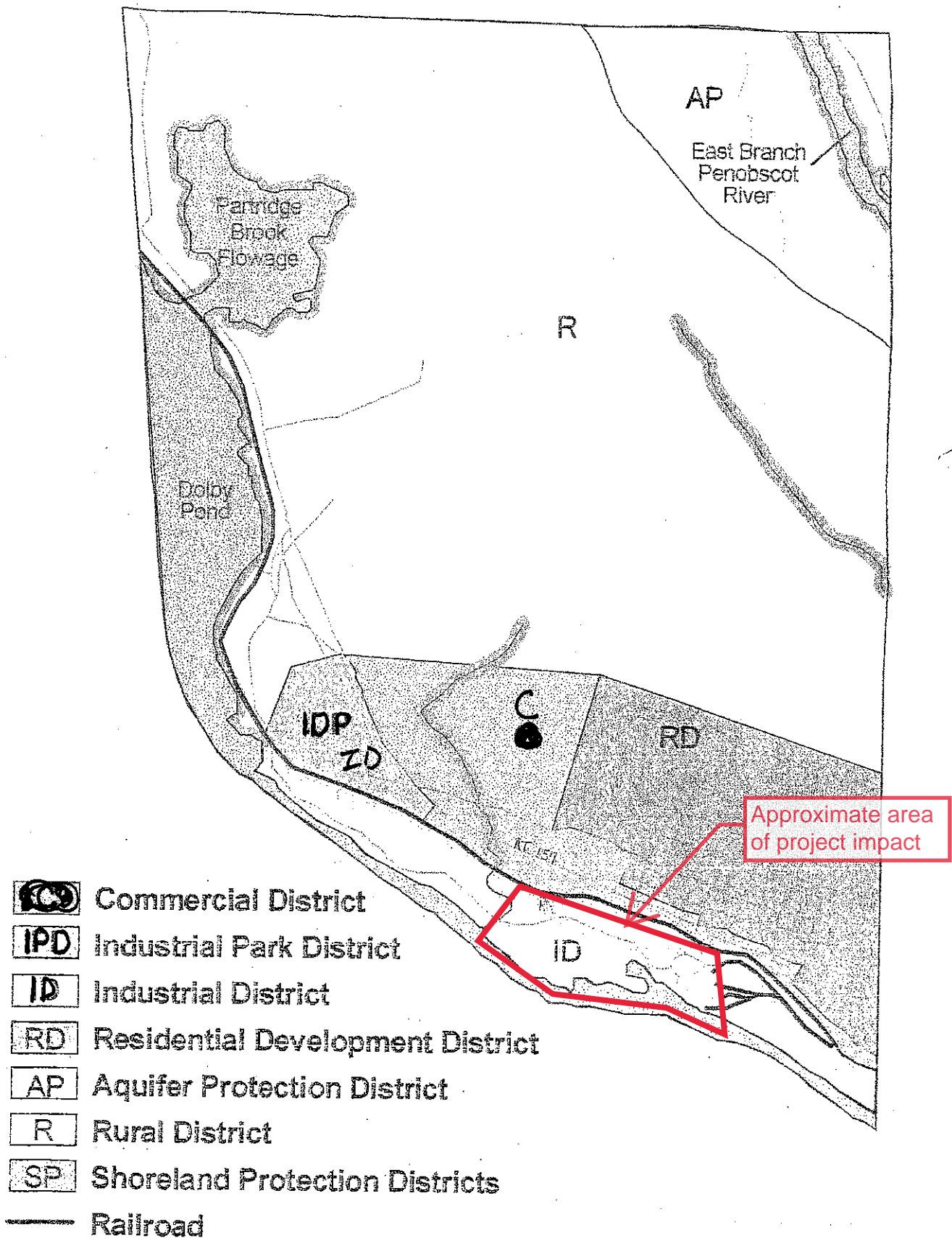
DISTRICT TEN: THE RURAL DISTRICT:

The Rural District incorporates all lands not covered in the previous seven districts. See Article Ten (10) of the Land Use Ordinance for specific details.

BOUNDARIES:

The Rural District is bounded to the North by the Northern Township Line, to the East by the Resource Protection District and the Eastern Township Line, to the South by the Public, Semi-Private and Institutional, Residential, Commercial and Dolby Shoreland Districts, and to the West by the Partridge Brook Shoreland District and the Western Township Line.

Official Zoning Map of the Town of East Millinocket



Katahdin Region Comprehensive Plan

Millinocket, East Millinocket, and Medway Maine

2020



Millinocket
Maine's Biggest Small Town



EMDC EASTERN MAINE
DEVELOPMENT CORPORATION

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Introduction to Maine Comprehensive Plans

Historic Background

A comprehensive plan is a document adopted by a local government and created by local people. This document is actually a map to the town's future that guides the decision making process regarding the community and the vision that the residents have for their future. The essential characteristics of the plan makes it comprehensive, general, and long-range. The plan is comprehensive since it encompasses *all* aspects of the community; general because the plan summarizes policies and implementation strategies but does not include detailed regulations; and long-range, since the plan looks to the future to envision problems and possibilities.

During the economic boom of the 1980s, the State of Maine experienced substantial growth not only in the urban areas but also in rural communities. This growth was a blend of industrial, commercial and residential types and occurred in many communities that were not prepared to deal with increased demand on municipal budgets, and built environment. In response to this growth and in an effort to reduce the impact on local taxes, community character, and environmental integrity, the Maine State Legislature enacted land use laws intending to provide municipalities with the tools to anticipate future growth and development. The "Comprehensive Planning and Land Use Regulation Act" of 1988 – frequently referred to as the "Growth Management Act" – requires municipalities throughout the state to adopt a Growth Management Program consisting of a comprehensive plan and land use ordinances. It provides the framework for municipalities to guide their future growth and development while maintaining their community character and identity. The program was subsequently repealed by the Legislature, eliminating the mandatory aspect of the law; however, many communities have recognized the value and necessity of this program and continue to aspire to the original Act's goals.

In January 2001, Public Law 776 "*An Act to Implement the Land Use Recommendations of the Task Force on State Office Building Location, Other State Growth-related Capital Investments and Patterns of Development*" went into effect. This act was developed to ensure that government investments are made in a manner that will not spur development sprawl and will concentrate public facilities and improvements in locally designated *growth areas*. Whether investment uses State, Federal, or other public funds in the form of a purchase, lease grant, loan, loan guarantee, credit, tax credit or other financial assistance, "**growth-related capital investment**" refers to investment by the State in the following projects:

- Construction or acquisition of newly constructed multifamily rental housing;
- Development of industrial or business parks;
- Construction or extension of sewer, water and other utility lines;
- Grants and loans for public service infrastructure, public facilities and community buildings; and
- Construction or expansion of state office buildings, state courts, and other state civic buildings that serve public clients and customers.

"Growth-related capital investment" **does not** include investment in the following:

- Operation or maintenance of a governmental or quasi-governmental facility or program;
- Renovation of a governmental facility that does not significantly expand the facility's capacity;
- General purpose aid for education;
- School construction or renovation projects;

- Highway or bridge projects;
- Programs that provide direct financial assistance to individual businesses; community revenue sharing; or
- Public health programs.

Statutory Basis

The Katahdin Region's multi-jurisdictional Comprehensive Plan was developed pursuant to the statutory requirements of the Comprehensive Planning and Land Use Regulation Act of 1988 (MRS Title 30, Section 4861). The adoption of the Plan can assist the towns in receiving preferential consideration when applying for Federal or State funded grants that affect their community development (MRSA Title 30-A, Section 4349).

Purpose

The purpose of a comprehensive plan is to provide the factual basis and policy framework for future planning, regulatory, and community development decision-making in both the public and private sectors for the Towns. The plan is a valuable working instrument for the future growth and development of the towns of Millinocket, East Millinocket, and Medway, and will qualify them for preferred status with state competitive grant programs.

Consultancy

Eastern Maine Development Corporation (EMDC) is pleased to assist the towns of Millinocket, East Millinocket, and Medway with their collaborative comprehensive planning efforts and looks forward to working with the communities.

State of Maine's Goals

In order for the plan to be deemed consistent by the State of Maine, it must address the state's ten goals of Growth Management:

1. To encourage orderly growth and development in appropriate areas of each community, while protecting the State's rural character, making efficient use of public services, and preventing development sprawl;
2. To plan for, finance, and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development;
3. To promote an economic climate, which increases job opportunities and overall economic well-being;
4. To encourage and promote affordable, decent housing opportunities for all Maine citizens;
5. To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas;
6. To protect the state's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas, and unique natural areas;
7. To protect the State's marine resources industry, ports, and harbors from incompatible development and to promote access to the shore for commercial fishermen and the public;
8. To safeguard the State's agricultural and forest resources from development which threatens those resources;
9. To preserve the state's historic and archeological resources; and
10. To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.

To go along with these, the towns of East Millinocket, Millinocket, and Medway have included their own local goals within each chapter, not only supporting but also building upon the requirements of the State of Maine.

Scope of Work

This comprehensive plan involves the following:

- A survey of existing and potential resources;
- Analysis of past, present, and future community needs;
- Development of policy proposals to abate, resolve or prevent local problems;
- Adoption and implementation of these policies by town officials and residents; and
- Continuous monitoring of the plan's policies and implementation strategies.

A comprehensive plan follows an established framework set forth by the State of Maine. Within the plan, however, are the collective thoughts and actions of the Katahdin Region's residents. The entire comprehensive plan must be applicable now and in the future. Consequently, the towns must periodically review the plan and update it to reflect needed changes in local policies and to incorporate updated information. This comprehensive plan looks at local as well as regional issues that concern or affect the towns of East Millinocket, Millinocket, and Medway. It will guide the towns over the next ten years and provide a reasonable approach to land-use regulation by preparing the towns for future development while retaining, or even enhancing, local quality of life.

This comprehensive plan examines the following components:

- | | |
|---|--|
| ● Public and Regional Participation | ● Economy |
| ● Historic and Archaeological Resources | ● Transportation |
| ● Water, Topography, and Soil Resources | ● Recreation and Tourism |
| ● Habitats and Critical Natural Resources | ● Public Facilities and Services |
| ● Agriculture and Forestry | ● Fiscal Capacity and Capital Investment |
| ● Population and Demographics | ● Existing and Future Land Use |
| ● Housing | |

While many comprehensive plans deal with Marine Resources, the Katahdin Region is well inland. Any pertinent resources related to the Penobscot River are listed in Water, Topography, and Soil Resources.

Implementation

As important as the preparation of the plan, implementing the included policies and measuring their impacts should be a top priority for the town councilors and select-boards of Millinocket, East Millinocket, and Medway. Follow official adoption, this plan should be integrated into decision making vertically as well as horizontally across each town's government. Finally, this document can be used to coordinate private business activities as well as quasi-public and other entities that operate in the Katahdin region.

Regional Coordination Program

The towns of Millinocket, East Millinocket, and Medway lie within the northern portions of the Penobscot River in the West Branch Penobscot, East Branch Penobscot, and Lower Penobscot Subbasins. Additional water bodies connect the communities in the Katahdin Region, including Dolby Pond, Shad Pond, the Quakish Lake Subwatershed, the Millinocket Stream Subwatershed, and the Schoodic Stream Subwatershed. Various roadways and transportation facilities such as Millinocket Municipal Airport link Millinocket, East Millinocket, and Medway. The interconnections between these water and transportation systems and other shared resources and facilities signify that their management will require regional coordination efforts. To represent regional coordination efforts and coordinate management of shared resources and facilities, a review board will convene on an annual basis or as needed. In addition to each town manager or administrative assistant, two representatives from each community will serve on the tri-town review board, for a total of nine individuals. The two representatives that will serve on the board will be decided upon by each community. The review board's conversation topic areas will revolve around economic development, transportation, land use management, natural resource protection, housing, and municipal services, as they pertain to the region. Other tasks will be to update this document and plan the implementation of recommended initiatives, which may include discussing resource sharing, writing grants together, and other collaboration.

Conflicts with other Communities' Policies/Strategies

Within the Katahdin Region, the Town of Millinocket borders Norcross to the west. Grindstone is situated north of East Millinocket and Woodville and Mattawamkeag are located southeast of Millinocket. As a result of the lack of comprehensive plans in these bordering communities, no policy or strategy conflicts were identified.

Evaluation

In order to evaluate the degree to which future land use plan strategies have been implemented, the percent of municipal growth-related capital investments in growth areas, the location and amount of new land development, and the protection of critical natural resources, the Katahdin region's review board will discuss these topics at their scheduled meetings. Materials will be filed for a 5-year review, which will consist of code enforcement and a compilation of building permits. This regional conversation will serve as a time to assess progress made, discuss impacts to natural resources, and plan for future growth in Millinocket, East Millinocket, and Medway. Town departments within the region should read this plan and integrate its recommendations for policy change and/or implementation with their partners, commissions and committees.

Limitations

This comprehensive plan has been assembled and compiled such that all data and information contained was gathered from sources cited. Where appropriate, applications of the information contained in this plan should be preceded by a verification of the original source to note additional or revised information. While this information is suitable for general planning, it may not be appropriate for site-specific decisions.

Disclaimer

The information used to create the maps and data visualizations in this Comprehensive Plan have been derived from multiple sources. The map and data products as provided are for reference and planning purposes only and are not to be construed as legal documents or survey instruments. Eastern Maine Development Corporation (EMDC) provides this information with the understanding that it is not guaranteed to be accurate, correct, or complete; that it is subject to revision; and that conclusions drawn from such information are the responsibility of the user. Due to ongoing road renaming and addressing, the road names shown on the maps may not be current. Any user of the maps and data accepts AS IS, WITH ALL FAULTS, and assumes all responsibility for the use thereof, and further agrees to hold EMDC harmless from and against any damage, loss, or liability arising from use of any content.

American Community Survey Data from the US Census

Datasets from the US Census come in a variety of geography levels and products. The Decennial Census occurs every ten years and is a point-in-time count of every person in the US. The American Community Survey is released every year and measures only a portion of the entire population in either 1-year or 5-year estimates. The Decennial Census values are given without margins of error, whereas the ACS sampling method requires the use of margins of error.

The geographies we are most familiar with – Census Tracts, Block Groups, and Blocks – are generated to create consistent populations between tracts or blocks. However, these can be problematic in rural places with relatively low populations. For much of this analysis, the County Subdivision has been used as it describes every municipality in its entirety (as opposed to a Census Designated Place, which is generally a small area within a municipality). In order to provide statistically valuable data estimates, however, the American Community Survey uses a sampling technique that allows only for 5-year estimates at the County Subdivision level. For example, the dataset labeled “2018” spans the years 2014 through 2018. The dataset labeled “2017” spans the years 2013 through 2017. Comparisons between these two datasets are inappropriate because the sample data in years 2014, 2015, 2016, and 2017 are identical for each dataset. The different sample years – 2013 and 2018 – contain too few data points to draw any statistically valuable comparisons. However, it is appropriate to directly compare two non-overlapping datasets such as 2009-2013 and 2014-2018 or 2007-2011 and 2012-2016.

This comprehensive plan uses both Decennial Census and American Community Survey data at the State, County, and County Subdivision levels. Every attempt has been made to clearly address the limitations of each data product. At the time of writing, the most current ACS products available were from the 2018 5-year estimates released in December 2019. For more information visit data.census.gov.

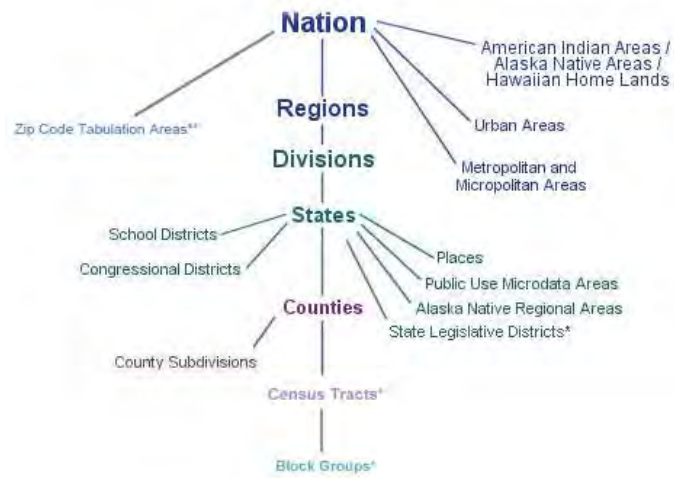


Figure 1 US Census Geography Hierarchy

Chapter One:

A VISION FOR THE KATAHDIN REGION

The Katahdin region is made up of the communities of Millinocket, East Millinocket, and Medway surrounded by Island Falls, Mount Chase, Patten, Sherman, Stacyville, and others. These communities are bound both by geography and by a shared history. With a view of Mount Katahdin from all directions, the region is rooted in its forests, lakes, rivers and mountains. This relationship is manifest in the successes of Baxter State Park and the designation of the Katahdin Woods and Waters National Monument in 2016.

Historically, regional identity was enmeshed with the forest industry. Whether through the absence of operational lumber mills and paper manufacturers or through workforce or supply chain businesses, the recent downturn of this region's major industry has greatly affected the region. Efforts to revitalize paper and pulp mills have remained largely unsuccessful and measures to rebuild economic vitality are central to the region's future. In 2014, the grassroots and volunteer-driven organization *Our Katahdin* was launched with a mission to advance community and development across the region. Constructing a vision for *Our Katahdin* was an early and pivotal step in rejuvenating these communities:

“Distinct, welcoming and gritty. The Katahdin Region is a premier four-season outdoor recreation destination in New England known for enduring natural beauty and authentic experiences. We promote economic growth and development that respects the natural environment, bolsters communities, accounts for climate impacts and builds on the diversity of resources that surrounds us. Our robust forest economy produces a new wave of innovative forest products and our world-class outdoor recreation activities are legendary. People who live here and visitors alike enjoy walking, biking, hiking, snowmobiling, ATVing, skiing, and paddling on well-connected and well-marked paths and trails that wind throughout the region. Our communities support people of all ages and abilities with excellent healthcare and education, wheelchair and stroller-friendly sidewalks, and access to affordable housing and broadband service. Our town centers are alive with bustling small businesses and unique eateries. The Katahdin Region is a robust string of dynamic communities, working and wild lands, and crystalline rivers and lakes. People who live here fiercely support and welcome new businesses, new neighbors, and new visitors to our special corner of Maine. Welcome to Katahdin.”¹

Our Katahdin was joined by a wide range of non-profit and community-based organizations to promote positive change. Among these were the Katahdin Collaborative, Katahdin Tourism Project, Katahdin Citizens Group, Katahdin Chamber of Commerce, Millinocket Memorial Library, Friends of Baxter State Park, Katahdin Area Trails, Thrive Penobscot, The Nature Conservancy, Eastern Maine Development Corporation, Maine Development Foundation, and Katahdin Higher Education Center.

¹ <https://katahdincollaborative.org/initiatives/#KatahdinGazetteer> Published May 2019 by Katahdin Collaborative, Accessed December 13, 2019.

Working within these new partnerships, several efforts were undertaken to identify a road to recovery:

- Hosting the Katahdin Revitalization Speaker Series;
- Initiating a regional survey, conducted by the Katahdin Higher Education Center, to engage businesses, organizations, local government, and residents in identifying business needs, gaps, and opportunities;
- Building the *Katahdin Collaborative*, an effort that resulted in the publication of the “Katahdin Gazetteer: A Roadmap to the Future”;
- The Katahdin Region Socioeconomic Indicators report, led by Adam Daigneault, Assistant Professor of Forestry, Conservation and Recreation at the University of Maine and the George Mitchell Center for Sustainability Solutions; and
- Broadband needs assessment and planning, with technical support from the EPA’s Cool and Connected Program and the State of Maine’s Connect ME planning process.

The “Katahdin Gazetteer” was the realization of collaboration between communities and organizations working with The University of Maine Senator George J. Mitchell Center for Sustainability Solutions and with consulting firm Adam Burk & Co. The objective of this collaboration was to create a vision and action plan identifying what matters to people in the region and charting a roadmap to sustainable growth. The effort included community events, strategic planning sessions, workshops, surveys, and outreach to engage a broad representation of the region.

Because of this visioning, the following themes were identified:

1. **Foster vibrant villages that enhance the region;**
2. **Make the Katahdin region the premier four-season outdoor destination in New England;**
3. **Be a place that supports and attracts people of all ages;**
4. **Cultivate local jobs and a new regional economy;**
5. **Grow the next wave of forest product manufacturing;**
6. **Future-proof the region.**

Moving forward, regional collaboration will continue to assure that the visioning continues, that projects are supported, and that efforts result in revitalization of the region. This multi-jurisdictional comprehensive plan – an endeavor by Millinocket, East Millinocket, and Medway – will incorporate this vision and serve as a model for regional planning across the state.

Throughout the text of the plan, the description *Katahdin Region* will refer to Millinocket, East Millinocket, and Medway and their joint comprehensive plan. This is simply for the sake of convenience rather than attempting to define a geographically bounded region.

Chapter Two:

REGIONAL AND LOCAL STAKEHOLDER ENGAGEMENT

Following the regional visioning process completed for the Katahdin Gazetteer project, the towns of Millinocket, East Millinocket, and Medway agreed to use their shared experiences to embark on a multi-jurisdictional comprehensive plan. This effort is a continuation of the momentum and interest generated by the Gazetteer, but focuses on these three communities. The intention is to create a unique platform for improved regional coordination, cooperation, and participation at all levels of governance. Future collaboration with residents of nearby towns including Woodville, Grindstone, Mattawamkeag, Winn, Chester, and Lincoln will help to identify opportunities for future collaboration and implementation of this comprehensive plan.

During the construction of this Katahdin Region Multi-Jurisdictional Comprehensive Plan, the towns of Millinocket, East Millinocket, and Medway actively encouraged participation from all of their residents. A committee of individuals from each town and Eastern Maine Development Corporation (EMDC) staff regularly met to collect and review information for the plan. The committee and EMDC chose to hold four public meetings for the public to review and voice support or concerns for the plan. These meetings were held at the completion of three- to four-chapter sections. All meetings were publicized and the public were encouraged to attend.

Additionally, the Town of Millinocket initiates a yearly survey with the mindset of enhancing communications between the local municipality and the community. The survey was developed, conducted, and reviewed by the Millinocket Economic Development Committee and responses from years 2017 and 2018 were integrated into this plan. It consisted of three parts: Demographics, Closed Response Questions, and Open Response Questions. The raw data was then compiled into a report and was made available to the public.

Participants within the Closed Response section were asked to answer the questions on a scale of Not Important, Somewhat Important, Neutral, Important, or Very Important. Of the responses worth noting, nearly half of participants agree that there is progress in the economic development efforts within the Town of Millinocket. Over three quarters of participants believe that recreation and industry are important to the future of Millinocket and the region.

Participants within the Open Response section were asked five questions relating to the current economic development and thoughts of the future. Overall, participants spoke of the beauty of living in a small town where everyone knows everyone, and the ease of access to the outdoors. Participants, when asked about the future, spoke about attracting new industry to the Katahdin region to help employ the youth and the lowering of the tax rate to residents. The eight-town Visioning activity conducted for the Katahdin Gazetteer addressed these and other issues important for the growth and revitalization of the Katahdin region.

Regional committees have also been formed to address economic and community initiatives described in this comprehensive plan. The Broadband Committee Utility is composed of two representatives from each of the towns of Millinocket, East Millinocket, and Medway as well as an Administrator who fills a seventh board position. This organization is granted by the State of Maine contingent upon having at least two communities incorporated to form the committee and furthermore, a public utility. The Committee is collaborating to develop and improve broadband internet capability throughout the region. The *Three Ring Binder* – a 1,100-mile fiber optic network crossing rural parts of Maine – interconnects to major urban service centers of the state, to adjacent states, and to Canada. This

network allows users in rural Maine access to some of the fastest internet service in the country. The center ring runs along ME Route 11, through Millinocket, East Millinocket, and Medway, where it then hits a junction heading North and South. Initial plans include building an open access fiber utility that allows multiple Internet Service Providers to compete on the same fiber optic infrastructure.

In early 2020, the three towns hired Casco Bay Advisors to complete a broadband network engineering study and construction RFP. This study will be completed in August of 2020 and provide the communities with a network design that covers the entirety of Medway, East Millinocket, and Millinocket. With the information provided by this study, the towns can move forward with constructing a reliable and affordable municipal broadband network.

The Mental Health and Wellness Coalition is formed by the towns of Millinocket, East Millinocket, Medway, Woodville, and Lincoln. The coalition's purpose is to combine efforts in a regional approach by banding our resources together to identify needs of the region while limiting the duplication of efforts. The goal is to continue to grow and host more community leaders, recovery coaches, law enforcement, emergency medical responders, and concerned members of the public. The coalition hopes that applying for grants as a larger body; it will increase the chances that funds are distributed efficiently based on identified regional needs.

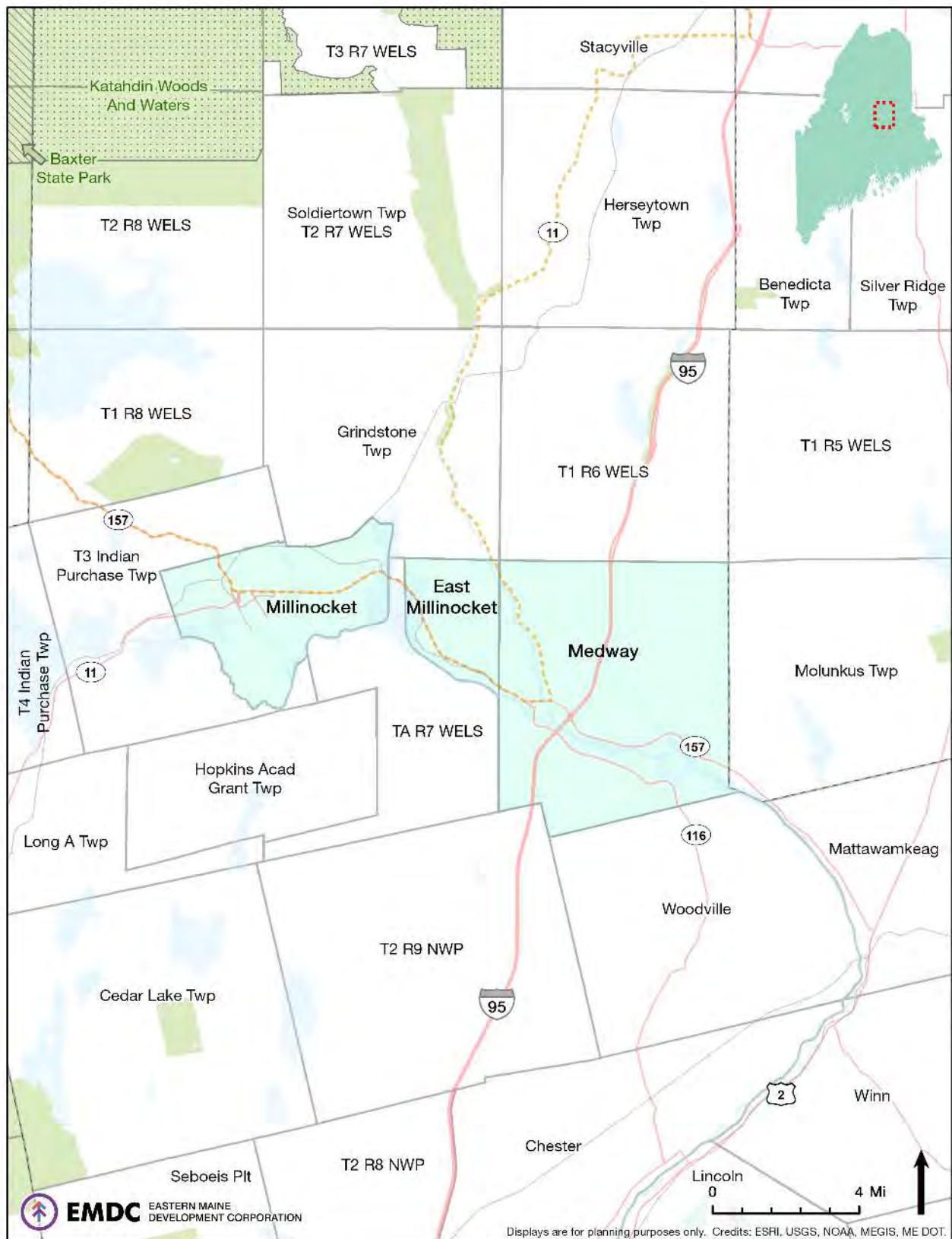


Figure 2 Regional Map showing Millinocket, East Millinocket, and Medway

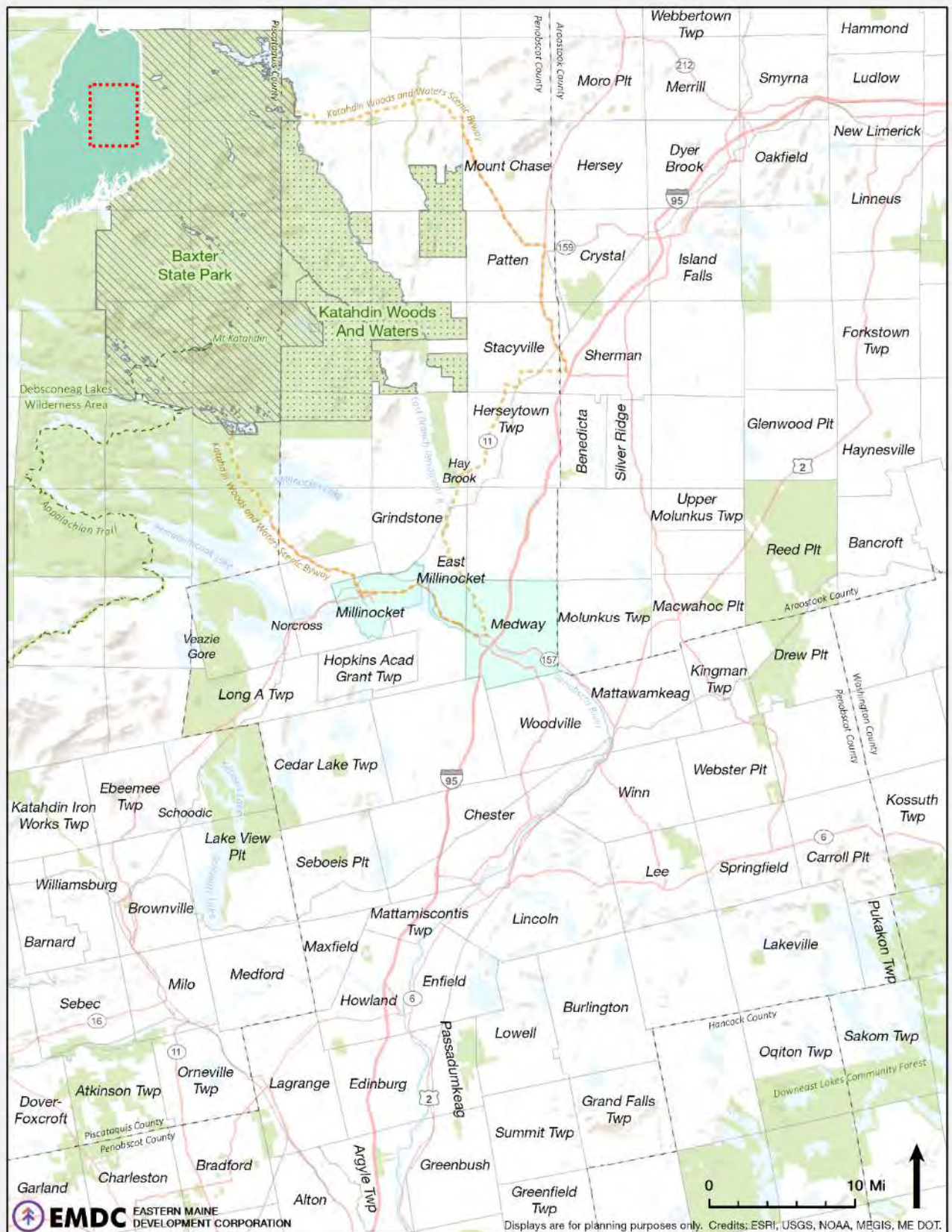


Figure 3 Regional Map showing Millinocket, East Millinocket, and Medway

Chapter Three:

HISTORIC & ARCHAEOLOGICAL RESOURCES

Goals/Vision

State Goal

To preserve the State's historic and archaeological resources.

Local Goals

Millinocket

To assess current and potential sites for historic preservation, to provide interpretive materials or displays to educate the public on these important resources, to work alongside projects and organizations with similar missions and to identify, prioritize, and seek funding through available agencies to reclaim, restore and recognize historic properties, both residential and commercial within our existing community.

East Millinocket

To help honor and retain the history of the Town and its reason for existence as the “Town that Paper Made.” To honor and preserve the history of the original and early settlers of the Town and Region.

Introduction

Our shared history takes many forms: folklore, music, houses, churches and religious ceremonies, farms, trade halls, mills, villages, neighborhoods, libraries, and archaeological sites to list a few. These landmarks and edifices contribute meaning to our societal struggles and triumphs. We learn from that past as we continue to build on it. In 1966, the Congress passed the National Historic Preservation Act to preserve that heritage, ensuring that “its vital legacy of cultural, education, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans” (§1, 16 USC 470.b.4). The Maine Historic Preservation Commission (MHPC) is responsible for overseeing this and other actions that steward our State's historic resources. Since the 1970s, the MHPC has recorded 4,601 historic archaeological sites, 6,373 prehistoric sites, and registered 179 historic districts and over 1,400 individual properties.¹

¹ <https://www.maine.gov/mhpc/sites/maine.gov/mhpc/files/inline-files/Heritage%20for%20the%20Future%202016-2021.pdf> Accessed December 27, 2019.

A Brief History

Human habitation in the Katahdin region started with the retreat of the Laurentide ice sheet and the arrival of the first humans to the area, as early as 10,000 years ago.¹ This first period of pre-Columbian human habitation in New England and Atlantic Canada are known as the Red Paint people for their burials containing large amounts of red ochre. First contact between Native Americans and Europeans in Maine potentially dates back much earlier than the first written interactions in the 16th and 17th centuries. Norse settlement at L'Anse aux Meadows, Newfoundland, as well as documented exploration of maritime Canada suggest that these seafarers may have explored Maine as early as the 11th century. Early forays by John and Sebastian Cabot in 1497 and 1498 establish the earliest recorded explorations of the east coast of North America. The Portuguese explored Penobscot Bay as early as 1525, the English in 1527, and the French in 1556.² Early incursions into Maine's interior occurred during an era of expansion by European interests, coinciding with the devastating depopulation of native peoples due to warfare, disease, and famine. Estimates are that approximately 90% of native peoples died between 1492 and 1600, removing enough global CO₂ emissions to substantially cool the planet.³

In the beginning of the 17th century, Maine's first nations formed the allied Wabanaki Confederacy - the "People of the Dawn." These included the Mi'kmaq and Maliseet in the north; the Passamaquoddy in the east; the Abenaki in the west and south; and the Penobscot in central Maine.⁴ Historians estimate somewhere between 12,000 and 20,000 Wabanaki lived in Maine at the confederacy's inception. Prosperous settlements at Portland, York, Kittery, Saco, and Wells became part of the Massachusetts Bay Colony in 1651. However, enduring wars with neighboring French territories and with Native populations during the 17th and 18th centuries meant that settlement across the State was tenuous, with an estimated population of 10,000 settlers in 1750. The conclusion of the French and Indian Wars (1763), the Revolutionary War (1783), and the War of 1812 (1815) ended a period of violence and insecurity for the State, officially inducted in 1820 to the United States of America and had then a population of 300,000.⁵

Proximity to the Penobscot River meant that the three communities of Millinocket, East Millinocket, and Medway were critically situated for a boom in the lumber industry. This region was known as Nicatou, or "the forks," and sat at the junctions of the East and West branches of the Penobscot River.⁶ Early settlers in Medway – then Kilmanock – constructed saw mills along the Penobscot River in the 1820s. Thomas Fowler arrived in what would eventually become Millinocket in 1829, followed by other families in the ensuing decade. In 1830, George McCauslin became the first white settler in East Millinocket. Settlement increased in the following years, drawn to the region to exploit the vast timber resources of the north woods. These settlements would eventually become townships: Medway on February 8, 1875, Millinocket on March 16, 1901, and East Millinocket on February 1907.

Water-powered sawmills dotted river corridors and drove the extension of the Bangor and Aroostook Railroad in 1893, which connected the region to trade hubs to the south. In 1899, the Great Northern Paper Company constructed its first facility in Millinocket, expanding to a second mill in East

¹ Miller, Steven. 1993. The Evolution of 12,000 Years in Maine. *Museum Management and Curatorship*, 12. Pgs. 63-72.

² <https://maineencyclopedia.com/timeline-of-maine-history-02-exploration-and-early-european-settlement/> Accessed December 27, 2019.

³ <https://www.pri.org/stories/2019-01-31/european-colonization-americas-killed-10-percent-world-population-and-caused> Accessed December 27, 2019.

⁴ <http://www.native-languages.org/maine.htm> Accessed December 27, 2019.

⁵ <https://maineencyclopedia.com/brief-history-of-maine/> Accessed December 27, 2019.

⁶ <https://maineencyclopedia.com/medway/>. Accessed December 27, 2019.

Millinocket in 1907. The region began to grow rapidly and prosper, inviting immigrants from Europe, Canada, and other parts of Maine. Following World War II, the Katahdin region began to experience rapid changes. The loss of the Great Northern Hotel and other historic institutions, the passage of the Federal Highway Act and the construction of the Maine Turnpike, and a shift towards suburban development all began to change the physical character of these three communities. Separated single-family houses, strip malls, and suburban commercial developments dominated new growth patterns.

In the late 1980s, a decline in the domestic paper industry began to be felt across the state and the nation. In 1989, Georgia-Pacific acquired the Great Northern Paper Company in a takeover and, in turn, sold their Maine holdings to Bowater in 1991 and again to the Canadian company Inexcon in 1999. The uncertainty of the local paper and pulp industry continued through the 2000s with numerous acquisitions and de-acquisitions. In 2011, Katahdin Paper Company sold the mills to Cate Street Capital of Portsmouth, New Hampshire. They revived the name Great Northern Paper Company and hired over 250 people at the East Millinocket mill site. However, Millinocket had permanently shut their doors and – despite some revived demand – East Millinocket followed in 2014. The implications of this shift are further discussed at length in Chapter 7: Population and Demographics, Chapter 8: Economy, Chapter 9: Housing, and Chapter 11: Transportation.

Inventory of Historic & Archaeological Sites

Pre-Historic Archaeological Sites

An archeological site is any place that contains physical remains of human use. In Maine, human habitation dates back to the retreat of the last glaciers – as far back as 10,000 years ago. Many of these sites exist before any written record and are called *Prehistoric Archaeological Sites*.¹ These might include villages, cemeteries, monuments or art, or sites people created stone tools or harvested natural resources. Many of these locations are not publicly disclosed to prevent damage to the sites. Common threats to prehistoric archaeological sites include construction of buildings and roads, erosion from rivers and streams, and damage from artifact hunters.

Based on a study from the Maine Historic Preservation Commission, there are as many as twelve prehistoric sites in the Town of Millinocket. These sites are located on the shores of Dolby Pond, Shad Pond, and on the banks of the West Branch of the Penobscot River.

There is no information regarding prehistoric sites in the Town of East Millinocket.

An inventory of the Town of Medway disclosed nine prehistoric archaeological sites. All of these sites are located along the banks of the Penobscot River, on islands in the river, or in the mouth of the East Branch of the Penobscot River. Professional surveying has been limited to small areas of the riverbanks concurrent with road, bridge, and hydroelectric dam relicensing projects.

Both Millinocket and East Millinocket have adopted ordinances regarding land use and structures, but neither addresses the preservation of historic sites or buildings. Medway has not adopted a building code.

¹ <https://www.saa.org/about-archaeology/what-is-archaeology> Accessed December 30, 2019.

Historic Archaeological Sites

Where an archeological site can be identified or understood through written record, it is known as a *Historic Archaeological Site*. These can include shipwrecks, battlefields, cemeteries, houses, and industrial sites.

Site Name	Site Number	Site Type	Period of Significance	National Register Status	Town
Fowler Farm	ME 281-001	Farmstead	1833 - 1899	Undetermined	Millinocket
Quakish Lake Dam	ME 281-002	Dam, hydroelectric	1900 - present	Undetermined	Millinocket
Powers Farm	ME 136-001	Domestic	Pre-1890 - 1907	Undetermined	East Millinocket
W. Wait Homestead	ME 275-001	Domestic	n/a	Ineligible	Medway
Medway Village Sawmill Dam	ME 275-002	Dam, sawmill	n/a	Undetermined	Medway
G.H. Backer Homestead	ME 275-003	Domestic	n/a	Ineligible	Medway
W. Reed Homestead	ME 275-004	Domestic	n/a	Undetermined	Medway
Medway Unidentified Foundation	ME 275-005	Domestic	n/a	Undetermined	Medway

Source: Maine Historic Preservation Commission.

The need for continued surveying, inventorying, and analysis is understood in all three towns. There have been no professional archaeological surveys; any future surveys ought to focus on identifying significant places associated with the earliest European settlements in the region. These settlements date back to the 18th and 19th centuries and are precursors to the region's cultural, agricultural, architectural, and industrial heritage.

Historic Architecture – Buildings, Structures, and Objects

As of April 2017, there are two properties in Millinocket and zero properties in East Millinocket eligible for the National Register of Historic Places. As of October 2016, Medway has one property on the National Register of Historic Places. Based on preliminary research, three locations in Millinocket and two locations in East Millinocket may soon become eligible for recognition. Some of the benefits of federal recognition include funding and preservation resources. Common threats to historic architecture are inappropriate repairs or reuse, structural decay, increasing land values, and fire. Striking a balance between the preservation of a structure and its continued value to a community is important.

Building Name	Eligibility	Location	Town
Great Northern Paper Administration Building	Yes	One Katahdin Ave	Millinocket
Great Northern Paper Engineering & Research Building	Yes	One Katahdin Ave	Millinocket
Bandstand	Preliminary	Katahdin Ave & Poplar Street	Millinocket
George W. Stearns High School	Preliminary	80 Maine Ave	Millinocket
Millinocket Post Office	Preliminary	Penobscot Ave Rd	Millinocket
Millinocket Trust Company, East Millinocket Branch	Preliminary	49 Main St.	East Millinocket
Municipal Building	Preliminary	53 Main St.	East Millinocket
Congregational Church of Medway	Yes	Church St.	Medway
Source: Maine Historic Preservation Commission.			

Other Notable Museums & Historical Sites

Antique Snowmobile Museum

The Antique Snowmobile Museum in Millinocket holds one of the largest collections of antique snowmobiles in the Northeast. The museum was founded by the sons of Earlan Campbell, a pioneer in the development of Maine's snowmobile culture. The Museum features thirty-six reconditioned sleds from early manufacturers dating back to 1943. The Northern Timber Cruisers snowmobile club operates the museum in addition to promoting motor sports and tourism in the area. Once a year these sleds are featured in the annual Snowmobile Parade during the region's Winterfest in February. The museum is located on Millinocket Road just north of Millinocket downtown.

Millinocket Historical Society

Founded in 1979 by Polly and Bud Segee, the Millinocket Historical Society's mission is to gather and preserve historical artifacts of the town Millinocket and the region. Their focus is on elements that shaped the citizens of the town and its generations of tradition. The museum and its office are located at 80 Central Street in Millinocket.

Historical & Archaeological Resources

Maine Historic Preservation Commission

The Maine Historic Preservation Commission is an independent agency within the State government that functions as the State Historic Preservation Office. The commission meets quarterly to review and approve nominations of historic properties to the National Register of Historic Places, to oversee the agency's annual operating budget, and to award grant funds for historic preservation projects.

Maine Preservation¹

Founded in 1972, this non-profit assists property owners, towns, and cities with project guidance and assistance with tax credits, funding, easements, and advocacy.

¹ <https://www.maine Preservation.org/what-we-do> Accessed February 21, 2020.

Certified Local Government Program¹

The CLG program is a state-operated program that promotes towns and cities in preservation planning and cultural resource protection. To become a CLG, a town must:

- Establish a historic preservation ordinance;
- Create a preservation commission;
- Provide for public education and participation;
- Conduct and maintain a survey and inventory of historic properties.

Maine Downtown Center²

The Maine Downtown Center is a part of the Maine Development Foundation that focuses on downtown revitalization efforts across the state. As part of the national Main Street America program, the MDC offers training, support, and marketing for communities and neighborhoods.

Maine Archaeological Society³

The Maine Archaeological Society is a non-profit research and advocacy organization that coordinates with local and state agencies on archaeological surveys, education and awareness, and other efforts.

¹ <https://www.maine.gov/mhpc/programs/protection-and-community-resources/certified-local-government-program> Accessed February 19, 2020.

² <https://www.mdf.org/program-partnerships/maine-downtown-center/> Accessed February 19, 2020.

³ <http://www.mainearchsociety.org/> Accessed February 19, 2020.

Strategies and Policies

In order to preserve the State of Maine's historic and archaeological resources from development that could threaten those resources, the Towns of East Millinocket, Medway, and Millinocket should adopt local policies and strategies in addition to the following state policies and strategies:

State of Maine

Policies:

Minimum policies required to address state goals:

1. Protect to the greatest extent practicable the significant historic and archaeological resources in the community.

Strategies:

Minimum strategies to meet state goals:

1. For known historic archeological sites and areas sensitive to prehistoric archeology, through local land use ordinances require subdivision or non- residential developers to take appropriate measures to protect those resources, including but not limited to, modification of the proposed state design, construction timing, and/or extent of excavation.
2. Adopt or amend land use ordinances to require the planning board (or other designated review authority) to incorporate maps and information provided by the Maine Historic Preservation Commission into their review process.
3. Work with the local or county historical society and/or the Maine Historic Preservation Commission to assess the need for, and if necessary plan for, a comprehensive community survey of the community's historic and archaeological resources.

Time Frame: Ongoing

Responsible Agent(s): Maine Historic Preservation Commission, East Millinocket, Millinocket, Medway.

Local

Millinocket

1. **Policy:** To identify sites that are eligible for designation and to work with organizations and entities that own those sites to work towards designation.

Strategies: Assess known sites that are not designated and research unknown sites with potential.

Time Frame: Ongoing

Responsible Agent(s): Town of Millinocket, Millinocket Historical Society, Community members and stakeholders at large.

East Millinocket

1. **Policy:** *None at this time.*

Strategies: To preserve and protect the original and settled heritage when feasible and the opportunity presents itself.

Time Frame:

Responsible Agent(s):

Medway

1. **Policy:** *None at this time.*

Strategies:

Time Frame:

Responsible Agent(s):

Chapter Four:

WATER RESOURCES

Goals/Vision

State Goal

To protect the quality and the quantity of the State's surface water and water resources including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas.

Local Goals

Millinocket

To expand public access to waterways for recreational purposes and tourism. To create more recreational areas accessible to the public (residents and visitors) along the Millinocket Stream and the lakes around Millinocket.

To protect our water supply and drinking water by testing and public education.

To continue to meet Maine Department of Environmental Protection guidelines for treated wastewater into the Penobscot River and protect that right for needed business development while respecting the interest of local Tribes in having clean waterways.

To continue to protect the neighborhoods, houses, businesses, and school property near the Millinocket Stream from flooding due to excessive rain and regulation of the dam.

East Millinocket

To restore the shore of the West Branch of the Penobscot River along and near Spencer Brook. To create a walking area along the river, to create a canoe and kayak launch area, and to restore Spencer Brook and its head ponds to enable IF & W to restock the brook with trout on an annual basis. To protect the East Millinocket water supply source from the East Branch of the Penobscot along the gravel pack esker to remain viable into the future.

To protect the quality of the Town's water resources.

Introduction

Maine has benefitted from its abundant and healthy water systems. However, these resources have not always been managed in accordance with their value. Rampant pollution and misuse degraded many of the State's waters to the detriment of health, environment, and economy. The passage of the Clean Air Act (1963) and the Clean Water Act (1972) began an era of serious reform and rehabilitation. The benefits of these efforts are clear, and it is incumbent on State and municipal managers to build on those successes. As such, Maine's Growth Management Act requires municipalities to protect and manage "significant water resources such as lakes, aquifers, estuaries, rivers and coastal areas and, when applicable, their vulnerability to degradation" (See MRSA Title 30-A, §4312.3.E, §4326.1.B, and §4326.3-A.C).

Threats & Productive Measures

Threats to Water Quality

Point Source pollution comes from identifiable sources such as outfall pipes, ditches, or channels used by municipal or industrial facilities, bypasses or overflows from municipal sewage systems, or wastewater from oil or gas operations. Wastes discharged into rivers, lakes, streams, or the ocean, are called *effluents*. Quite often, effluent is treated to reduce any dangerous or damaging effects to the waterbody or its natural inhabitants.

Since the early 1970s, point sources of effluent discharge have been regulated by the National Pollution Discharge Elimination System (NPDES) administered by the US Environmental Protection Agency (EPA). In Maine, the Department of Environmental Protection (DEP) – in collaboration with the US EPA and local agencies – create waste discharge and effluent guidelines, issues licenses, and monitor water quality. The Maine DEP permits the Towns of East Millinocket and Millinocket to discharge wastewater effluent through outfall locations located along the West Branch of the Penobscot River. The Town of Medway Public Works Department does not have a treatment facility.

The Maine DEP offers pollution prevention assistance – also known as *point source reduction* – to municipalities and industries by identifying opportunities to reduce pollution creation at its source, increasing the efficiency of equipment and processes, thereby lowering the operating costs of treatment facilities. Where these interventions are successful, costs are recouped both from increased efficiencies in production and in treatment while reducing environmental impacts.

Unlike point source pollution, *Non-Point Source* (NPS) pollution is generated through the aggregation of run-off from lawns, parking lots, roofs, and other diverse sources. They include fertilizers, herbicides, and insecticides from agriculture and residential areas; oil, salt, and sand from road surfaces; sediments from eroding construction sites, logging operations, or stream banks; bacteria from pet or livestock waste, or from poorly maintained septic systems; and from atmospheric deposition, as in the case of acid rain.¹

The impacts of these pollutants are as diverse as their sources. For example, an increasingly common problem in Maine – algal blooms in ponds, lakes, and the ocean – can be connected to increased nitrogen and phosphorus pollution from agricultural runoff as well as from erosion sediments. Algae reduces the oxygen content of water bodies, suffocating other organisms. Certain algae species also produce toxins, as in the case of red tide. Our planet is capable of filtering many surface water contaminants, however pollution can reach critical drinking water systems, as was the case in the Town of Belgrade.² Runoff from road salt detected at noxious and unsafe levels in private well water required reduced salt application, improved road salt storage, and water filtration systems as the town explored expansion of its municipal water services.

NPS pollution is regulated under several federal efforts including the Clean Water Act (§319-320), the Safe Drinking Water Act, the Wetland Protection Program, and the Coastal Zone Management Program. Because these pollutants are so diverse in source and scope, measuring their impact is challenging. States are required to develop a *Total Maximum Daily Load* (TMDL) report for water bodies, analyzing those pollutants and setting limits to ensure water quality. The State of Maine recognizes that stormwater – runoff from rain and snow – is the primary vector for most NPS

¹ <https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution> Accessed December 16, 2019.

² <https://www.centralmaine.com/2018/10/21/salt-seasons-well-water-in-belgrade-triangle-area/> Published October 21, 2018. Accessed December 16, 2019.

pollution. The Maine Pollution Discharge Elimination System (MEPDES), State Stormwater Management Law, and the Municipal Separate Storm Sewer System (MS4) program all aim to establish *Best Management Practices* (BMPs) to reduce point source and nonpoint source pollution.

In many places, the costs associated with managing point source and nonpoint source pollution are exacerbated by outdated sewer systems. Combined sewer systems carry both municipal sewage and runoff from street gutters and storm drains to a wastewater treatment facility. However, during heavy rain or rapid snowmelt, these facilities can be overwhelmed, forcing that runoff – along with any sewage – into adjacent rivers, lakes, or harbors through a Combined Sewer Overflow (CSO). Engineers often recommend separate sewers to mitigate this problem; however, this creates a great financial burden where older infrastructure needs to be retrofit.

In areas without municipal sewer services, septic systems can also cause groundwater contamination. Typical septic systems collect wastewater into an underground tank, then channel it through a porous leach field that filters out contaminants and breaks down wastes. Where soils and topography allow these leach fields to drain too quickly or slowly, or where septic maintenance is lacking, contaminated water can seep into water bodies or into subsurface drinking water. Bacteria and other contaminants can cause acute environmental and health problems. Maine law now requires homes in any shoreland zone – within 250 feet of lakes, great ponds, and rivers – to conduct a septic inspection before home purchase. The Katahdin region towns have not yet adopted best management practices to prevent nonpoint source pollution.

Other methods to address NPS pollution include:

- In Cities and Towns
 - Reduce pet waste, leaves, and debris in gutters and storm drains;
 - Manage lawn and garden chemicals appropriately;
 - Clean up spilled oil, antifreeze, or gasoline properly;
 - Control soil erosion at construction sites;
 - Ensure that septic systems are properly maintained;
 - Purchase low-phosphorus detergents and cleaners.
- On Roads
 - Manage road salt and sand application;
 - Maintain road surfaces, ditches, culverts, and embankments to prevent erosion;
 - Ensure that road surfaces are appropriate for traffic volumes.
- In Forestry and Agriculture
 - Ensure proper construction, maintenance, and closure of logging roads and skid trails;
 - Maintain erosion breaks and stream buffers;
 - Manage animal manure to avoid runoff;
 - Use planned grazing practices on pasture.

Flood Protection

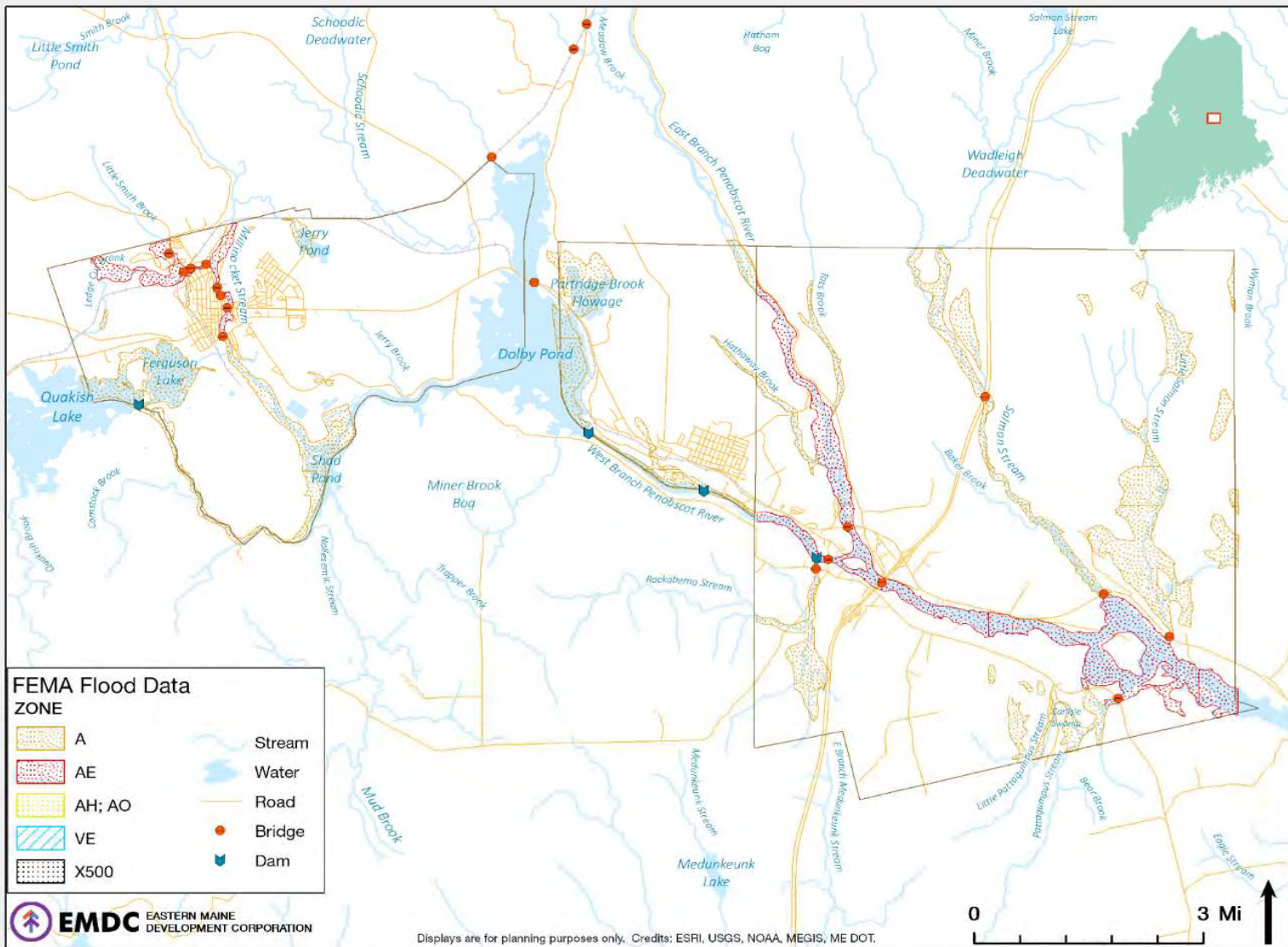
The Federal Emergency Management Administration (FEMA) calculates flood zones, or Special Flood Hazard Areas (SFHAs) for much of the U.S. These areas have a 1% of occurring in any year, also known as a 100-year flood or base flood.¹ In the zones generated for the Katahdin region, zones A, AE, AH, AO, and VE are 1% annual chance zones, while zone X500 is a 0.2% annual chance flood zone, or a 500-year flood zone. In zone A, no Base Flood Elevations (BFEs) are calculated; therefore,

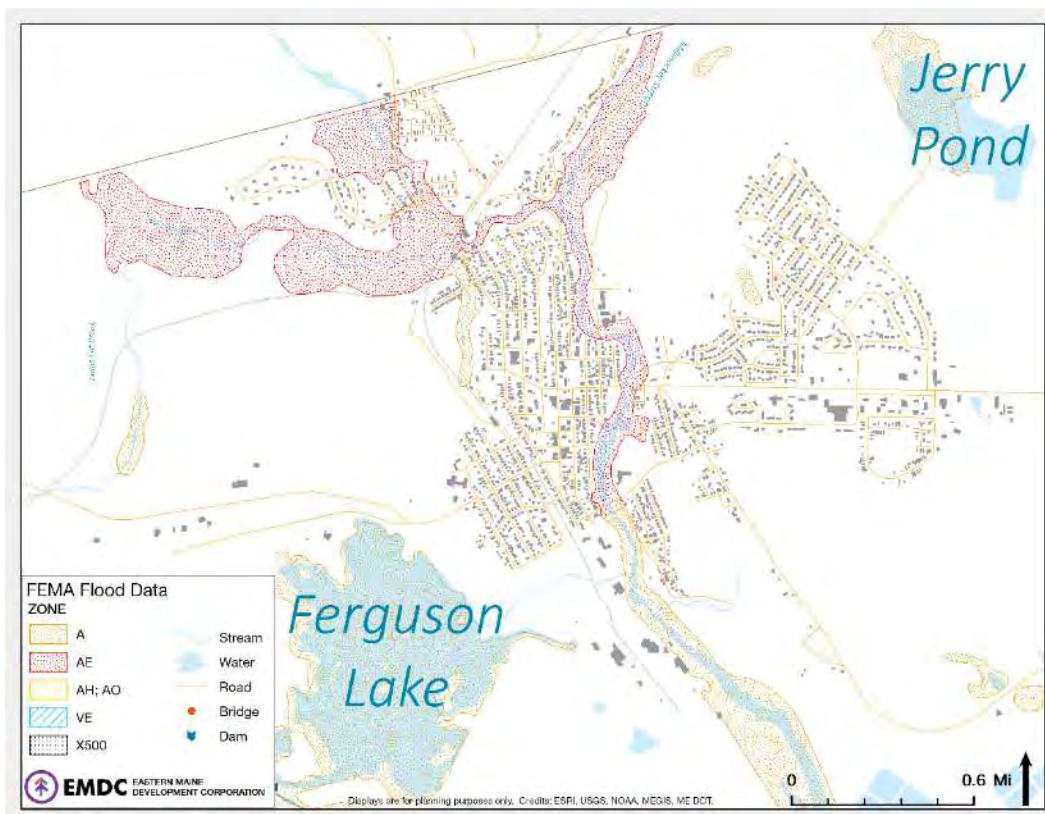
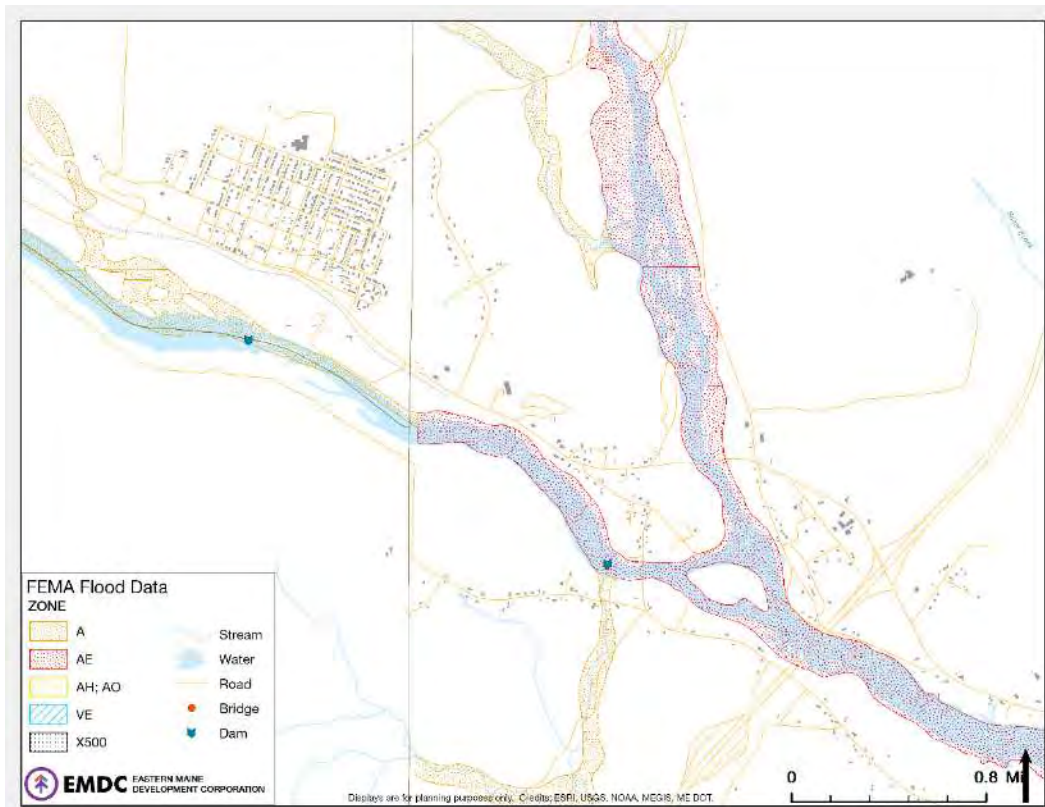
¹ <https://www.fema.gov/flood-zones> Accessed February 2, 2020.

no flood depths are available. Zone AE has calculated BFE data. Zones AH and AO are defined as exhibiting between one and three feet of flooding. Zone VE is subject to coastal storm-induced surge and wave flooding and is not shown in the Katahdin region.

Because each town lies on the course of the Penobscot River, certain areas are vulnerable to flooding. Sections of the East Branch Penobscot River, Tots Brook, and Hathaway Brook in Medway show wide flood areas. The West Branch Penobscot River flood area has the potential to inundate sections of East Millinocket inland from Route 157. Finally, Millinocket has vulnerable areas following Millinocket Stream and Ledge Cut Brook including sections of Bates, Bowdoin, and York Streets.

It should be noted that FEMA struggles to update its Flood Insurance Rate Map (FIRM) catalog. Effective dates for the region are 1987 (East Millinocket and Medway) and 1989 (Millinocket). The lack of current and accurate flood maps remains a significant lapse with respect to risk management resources.





Inventory of Water Resources

Wetlands

The term *wetland* is defined under both State and Federal law as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support prevalence of vegetation typically adapted for life in saturated soils.”¹ Wetlands include freshwater swamps, bogs, fens, marshes, heaths, swales, and meadows.

Wetlands are valuable for their beauty, their recreation opportunities, and the unique habitats they provide. They are also critically important for functions we benefit from directly, called *Ecosystem Services*. These include water storage, flood attenuation, groundwater recharge and discharge, shoreline erosion control, and water filtration. Wetlands are also fragile resources. Even construction on the fringes of a wetland can have significant environmental consequences. The most common sources of alteration include commercial, residential, and urban development; transportation and roads; floodplain development; pollution; timber harvesting; and agricultural and industrial activities.

Reducing these risks is a central part of Maine’s Natural Resources Protection Act (NRPA) which attempts to mitigate adverse impacts; minimize those that cannot be avoided; and compensate where those impairments occur.² To achieve this, the State implemented the In Lieu Fee Compensation Program (ILF), which accepts a fee in lieu of a mitigation project. The Maine Natural Resource Conservation Program (MNRCP) – administered by the Nature Conservancy – then allocates these funds to target wetland conservation and restoration projects with the overarching goal of achieving a net-zero change in wetlands across the State.

As diverse and dynamic ecosystems, wetlands can be difficult to identify with a boundary. Satellite imaging, aerial photography, and aerial drones have radically improved our understanding of where and when wetlands exist, how they function, and how they change over time. However, because of this complexity as well as certain inaccuracies associated with remote imaging, field verification is required before development occurs.

There are significant wetlands along the Pattagumpus, Salmon, and Little Salmon Streams in Medway; along Hathaway Brook and to the north of Partridge Brook Flowage in East Millinocket; and along Little Smith and Ledge Cut Brooks in Millinocket. Other significant wetlands include Quakish Bog in Hopkins Academy Grant Twp, Wadleigh Deadwater in T1 R6 WELS, Hatham Bog in Grindstone Twp, and Inman and Five Bogs and Carlisle Swamp in Woodville.

Watersheds

A watershed is defined as a geographic region within which water drains into a particular river, stream or body of water and includes constituent hills and lowlands. Watersheds are also known as drainage basins or catchments and are divided by ridges, or a drainage divide. While the ultimate destination of most watersheds is the ocean, it is instructive to consider each smaller region and its constituent structures. The US Geological Survey (USGS) designates watersheds according to their relative hierarchy by assigning each a unique *Hydrologic Unit Code* (HUC).³ For example, a region contains

¹ <https://www.epa.gov/cwa-404/how-wetlands-are-defined-and-identified-under-cwa-section-404> Accessed December 16, 2019.

² https://www.maine.gov/dep/land/nrpa/ILF_and_NRCP/index.html Accessed December 17, 2019.

³ https://www.usgs.gov/special-topic/water-science-school/science/watersheds-and-drainage-basins?qt-science_center_objects=0#qt-science_center_objects Accessed December 16, 2019.

several subregions (HUC 4), which in turn contains basins (HUC 6), each basin containing subbasins (HUC 8), and so on to the smallest designated subwatershed (HUC 12).

Within the watershed, *all waters are connected*: pollution or contamination in one spot will affect another; draining a wetland can shift the flow of an underground aquifer; damming a stream can cause a lake to become a swamp or vice versa. Managing a watershed requires an understanding of the waters flowing into, underneath, and through those waterbodies. Important to consider: political boundaries often overlap and cross cut watershed boundaries. As such, regional collaboration is central to comprehensive watershed management.

The Katahdin region is within the Penobscot River Basin (HUC 6) which spans much of central Maine and flows into the Gulf of Maine and the Atlantic Ocean. The Penobscot River Basin is abutted to the north by the St John River Basin, to the west by the Kennebec and Chaudière River Basins, and to the south by waters that flow to the Atlantic Ocean. The towns of Millinocket, East Millinocket, and Medway lie within the northern portions of the Penobscot River in the West Branch Penobscot, East Branch Penobscot, and Lower Penobscot Subbasins (HUC 8). Streams and rivers flow through the Town of Millinocket from the West Branch Penobscot River – Quakish Lake Subwatershed (HUC 12), the Millinocket Stream Subwatershed, and the Schoodic Stream Subwatershed, joining into the terminus of the West Branch Penobscot River Subbasin and joining the Lower East Branch Penobscot Subwatershed in East Millinocket and Medway. These in turn join water flowing through the Salmon Stream and Mattaseunk Stream Subwatersheds into the Lower Penobscot River Subbasin.

This interconnection underscores two points: those water systems are intimately connected to one another, and managing these assets requires inter- intra-regional cooperation.

Aquifers

Groundwater flows within the cracks and pores of soil and rock beneath the surface of the earth. These waters can collect and flow to water bodies, or can be self-contained water bodies in their own right. These underground waters are called aquifers. Aquifers are central to the function of both natural systems and human infrastructure by storing, circulating, and purifying water.

The characteristics of an aquifer depend on the porosity and permeability of the subsurface rock and soil, the topography of surrounding terrain, local weather and climate patterns, and the geologic history of an area. Water within an aquifer settles to a particular level, or water table. Wells are drilled into the ground, penetrating below the water table and providing a ready source of drinking water to individuals or to whole towns. An unconfined aquifer permeates from the surface to the water table, while a confined – or *artesian* – aquifer flows between layers of impermeable rock.

Aquifers are typically of two types: bedrock aquifers, and sand and gravel aquifers. In a bedrock aquifer, groundwater is stored in fractures and pores in the rock. These aquifers are generally adequate for small yields, sufficient to provide water for a single-family home most everywhere in Maine. A sand and gravel aquifer is a deposit of coarse-grained materials that can supply large volumes of groundwater. The sand and gravel deposits of Maine are often the result of glacial action and occupy roughly 1,300 square miles.¹ The boundaries of an aquifer are determined by geologic sampling and generally describe the area of principal groundwater recharge. Recharge occurs when precipitation refills the aquifer over the course of days, years, or even millennia.

¹ <https://www.maine.gov/dacf/mgs/explore/water/facts/water.htm> Accessed December 16, 2019.

It is important to protect aquifers from depletion and pollution. While Maine is situated in one of the most water-secure regions – the State’s annual average precipitation amounts to over 24 trillion gallons – aquifer-supplied water resources are not infinite. Because bedrock aquifers depend on the permeability and porosity of the underlying rock, they can vary in both capacity and recharge rates. Over-extraction can cause wells in adjacent areas to run dry, can change surface water levels, or can lead to salt-water intrusion of the aquifer. Manmade pollution can contaminate wells, necessitating costly filtration systems or the expansion of a nearby municipal water utility. Maine’s underlying geology can also create issues with water safety, as is the case with arsenic-, cadmium-, radon-, and uranium-containing minerals common in the region’s bedrock. Finally, water conditions can compound or exacerbate issues with built water infrastructure, especially in the case of lead leached from municipal or household plumbing.

A significant aquifer runs the length of Millinocket Stream from Millinocket Lake, south through the town. This sand and gravel aquifer transmits approximately 10 to 50 gallons per minute between seven and seventeen feet below the surface. A second, less extensive aquifer surrounding the northwest edge of Dolby Pond transmits a similar quantity of water. Potential point sources of pollution for these aquifers include a landfill located just north of the town border along near Little Smith Brook; a closed landfill site along Medway Road south of the Millinocket airport; a landfill site in the southwest just south of Ferguson Lake; a sand and salt storage facility in the west along Golden Road and near Ledge Cut Brook; and a municipal sand and salt storage area along Central Street

A sand and gravel aquifer runs most of the length of the East Branch Penobscot River, through the towns of East Millinocket at Medway. Where it flows through these towns, it transmits approximately 10 to 50 gallons per minute and runs between 6 and 111 feet below the surface. Potential point sources of pollution for this aquifer are a sand and salt storage facility owned by the Town of Grindstone, just north of East Millinocket’s border along Route 11; Medway town landfill and municipal and State DOT sand, and salt storage areas along Grindstone Road/Route 11 in Medway.

Another sand and gravel aquifer runs the length of Salmon Stream through Medway. This aquifer transmits approximately 30 gallons per minute and has no identified potential pollution points.

Finally, an aquifer runs along the Pattagumpus and Little Pattagumpus Streams, transmitting 10 to 50 gallons per minute. One potential point source of pollution is the sand and storage area operated by the Town of Woodville, located on Route 116, southwest of Kimball Hill.

Drinking Water Supply

The Maine Drinking Water Program and the Maine Centers for Disease Control (CDC) coordinate public and private providers and consumers of drinking water in order to protect public health. This program is authorized through the Safe Drinking Water Act and the EPA’s Primary Drinking Water Regulations. Maine has nearly 2,000 public water systems, 94% of these rely on groundwater.¹ Only 79 surface water bodies are used as public drinking water supplies²; the vast majority of Maine’s population relies on aquifer-supplied wells for drinking water. Across the State, 48% of the population rely on public water utilities while others rely on privately owned wells. Treating contaminated groundwater is nearly 40 times as expensive as preventing contamination³; therefore, many efforts to

¹ <https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/documents/DWPAAnnualComplianceReport2018.pdf> Accessed December 16, 2019.

² <https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/sitemap/surfaceWater.shtml> Accessed December 16, 2019.

³ <https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/documents/DWPAAnnualComplianceReport2018.pdf> Accessed December 16, 2019.

address drinking water quality begin by ensuring the health and productivity of our groundwater supplies. The Shoreland Zoning Act (described in Chapter 5) also addresses issues of drinking water contamination by preventing point- and nonpoint source pollution to water bodies and aquifers.

The Town of Millinocket, serviced by Maine Water Co., has two public wells and a drinking water intake located at Ferguson Pond. During 2018, there were no reported violations for drinking water contaminants.¹ East Millinocket sources its drinking water supply from an underground, gravel packed aquifer along the East Branch of the Penobscot River. Details for public water sources are listed in the table below:

Town	Name	Source	Type	PWSID
East Millinocket	East Millinocket Water Works	Well #1 24'GP	Well	ME0091150
		Well #2 24'GP		
		Well #3 52'GP		
Medway	None			
Millinocket	Maine Water Co., Millinocket Division	Ferguson Pond	Intake	ME0090990

Lakes & Ponds

Among Maine's most striking natural resources are its lakes and ponds: fisheries, wildlife habitats, recreation, scenic views, and water supplies are all benefits from these 5,779 standing water bodies. However, the distinction between what is a *lake* – typically large and deep – and what is a *pond* – typically small and shallow – can be somewhat murky. Variations in depth and surface area, as well as vegetation and seasonal algae populations, mean that there is no definitive distinction between what is a lake and a pond. Maine State statutes do define any lake or pond with a surface area greater than ten acres as a *Great Pond*. This also includes impounded – or dammed – waters greater than thirty acres.²

Maine's reputation as a destination for tourism and recreation represents both an opportunity and a threat to the health of our water bodies. Non-point source pollution, noise pollution, algal blooms, motor boat and Jet Ski traffic, fishing activities, and the threat of invasive species all wax and wane with seasonal visitors and impart stress onto these lakes and ponds. However, development in the form of seasonal homes, camps, and cabins represents an enduring impact to these spaces. In 1971, the State enacted the Mandatory Shoreland Zoning Act, restricting development in areas within 250 feet of lakes, ponds, and freshwater wetlands greater than ten acres in size; rivers with watersheds of at least 25 square miles of drainage; in coastal wetlands and tidal waters; and many land areas within 75 feet of streams.³ Municipalities are empowered to adopt, administer, and enforce their own shoreland zoning ordinances; where they have not done so, the State implements a model ordinance for that municipality.⁴

Our State also benefits from the dedication of the Lake Stewards of Maine, a non-profit organization that engages local volunteers in testing for indicators of water quality, screens for invasive species, and educates residents on stewardship of this abundant resource. Invasive species affecting lake and wetland health include milfoil, curly-leaf pondweed, European frogbit, brittle waterlily, and hydrilla. As of 2017, none has been detected in or near waters surrounding Millinocket, East

¹ <https://www.mainewater.com/media/1779/mlnktme0090990.pdf> Accessed December 16, 2019.

² <https://www.maine.gov/dep/water/lakes/lakepond.html> Accessed December 16, 2019.

³ <https://www.maine.gov/dep/land/slz/ip-shore.html> Accessed December 16, 2019.

⁴ <https://www.maine.gov/dep/land/slz/ip-shore.html> Accessed December 17, 2019.

Millinocket, and Medway. Other relevant measures of water conditions include: clarity (from sediment or from algae); phosphorous and bacteria (from failing septic systems); chlorides and hydrocarbons (from road surfaces); dissolved oxygen (necessary for fish and wildlife); and temperature, pH, and alkalinity.

Below is an inventory of lakes and ponds in Millinocket, East Millinocket, and Medway. Ferguson Lake is considered threatened by the MDEP, along with 162 other threatened lakes and 21 impaired lakes across the state.¹

Lake Name	Acreage	Location
Ferguson Lake	253 acres	Millinocket
Dolby Pond	1,941 acres	Millinocket/ East Millinocket
Jerry Pond	64 acres	Millinocket
Partridge Brook Flowage	154 acres	Millinocket/ East Millinocket
Shad Pond	161 acres	Millinocket

Rivers, Streams, and Brooks

According to the Natural Resources Protection Act (NRPA), a river, stream, or brook is a channel that has defined banks (including a floodway and associated floodplain wetlands) created by the action of the surface water. Maine has roughly 32,000 miles of rivers and streams and – according to a 2014 DEP study – fewer than 5% are considered impaired in any way.² Erosion, pollution, development, and impoundment (damming) all represent historic and ongoing threats to our riverine systems.

To determine whether Maine’s rivers, streams, and brooks meet the goals of the Federal Clean Water Act; the DEP uses bacteriological, dissolved oxygen, and aquatic life criteria to measure threats to the waterbody. All river waters are classified into one of four categories: AA, A, B, and C. Rather than a measurement of quality, this scale indicates risk of degradation given past and current stresses. Class AA waters are at very little risk, as things like waste discharge or impoundments are prohibited. Class A waters allow for more uses – limited discharges and industrial activities – therefore the risk for degradation is slightly higher. Class C waters are still healthy, but also have the fewest use restrictions and are therefore likely to experience degradation in some form.³ Where a river, stream, or brook has experienced significant degradation of water or flow quality, it is considered impaired and may qualify for rehabilitation funding.

In Millinocket, Little Smith and Ledge Cut Brooks flow into the Millinocket Stream (class C) to the West Branch Penobscot River (class C) at Shad Pond. Jerry Brook joins, flowing into Dolby Pond which is also fed by Schoodic Stream (class A) to the north. The East Branch Penobscot River flows south through East Millinocket and Medway, joined by Tots and Hathaway Brooks, and finally joining the West Branch in Medway. Also in Medway, the Rockabema Stream flows north into the Penobscot River, as do the Pattagumpus and Little Pattagumpus Streams. Finally, Salmon Stream, Baker Brook, and Little Salmon Stream collect waters in the northeast of Medway, flowing then into the Penobscot River.

¹ https://www.maine.gov/dep/land/watershed/nps_priority_list/NPS%20Priority%20List%20-%20Lakes.pdf Accessed January 22, 2020.

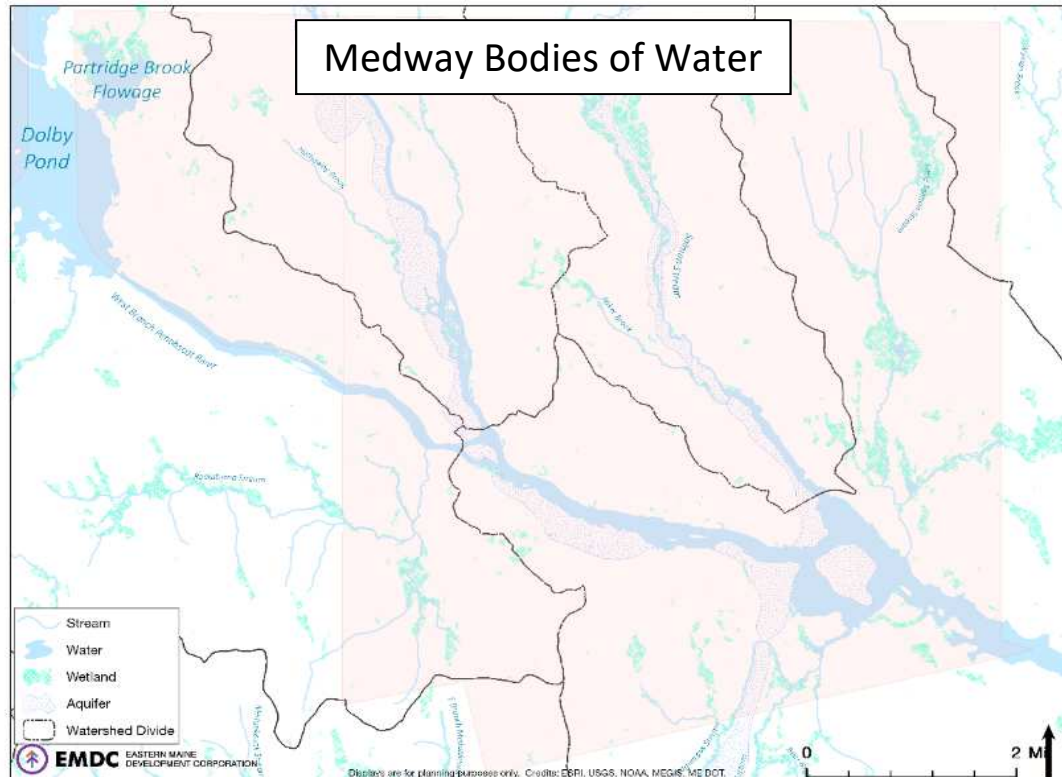
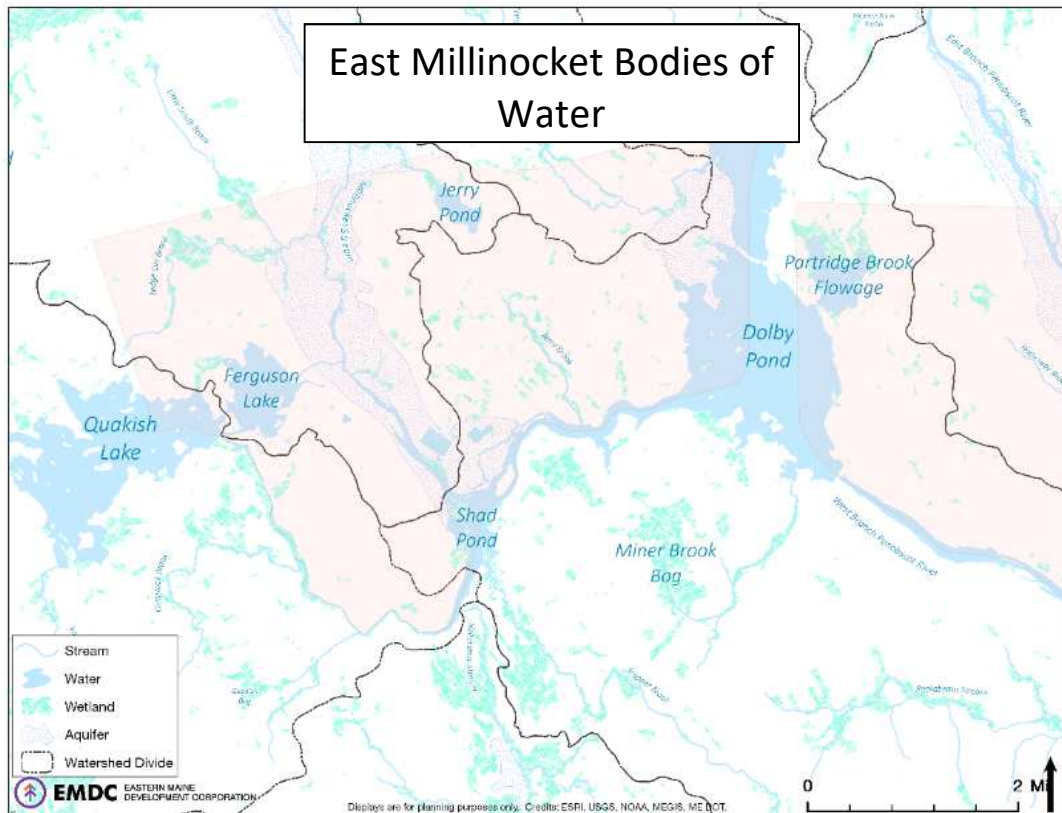
² <https://www.maine.gov/dep/land/watershed/Stream%20Stressor%20Guide%20October%202019%20Draft.pdf> Accessed December 17, 2019.

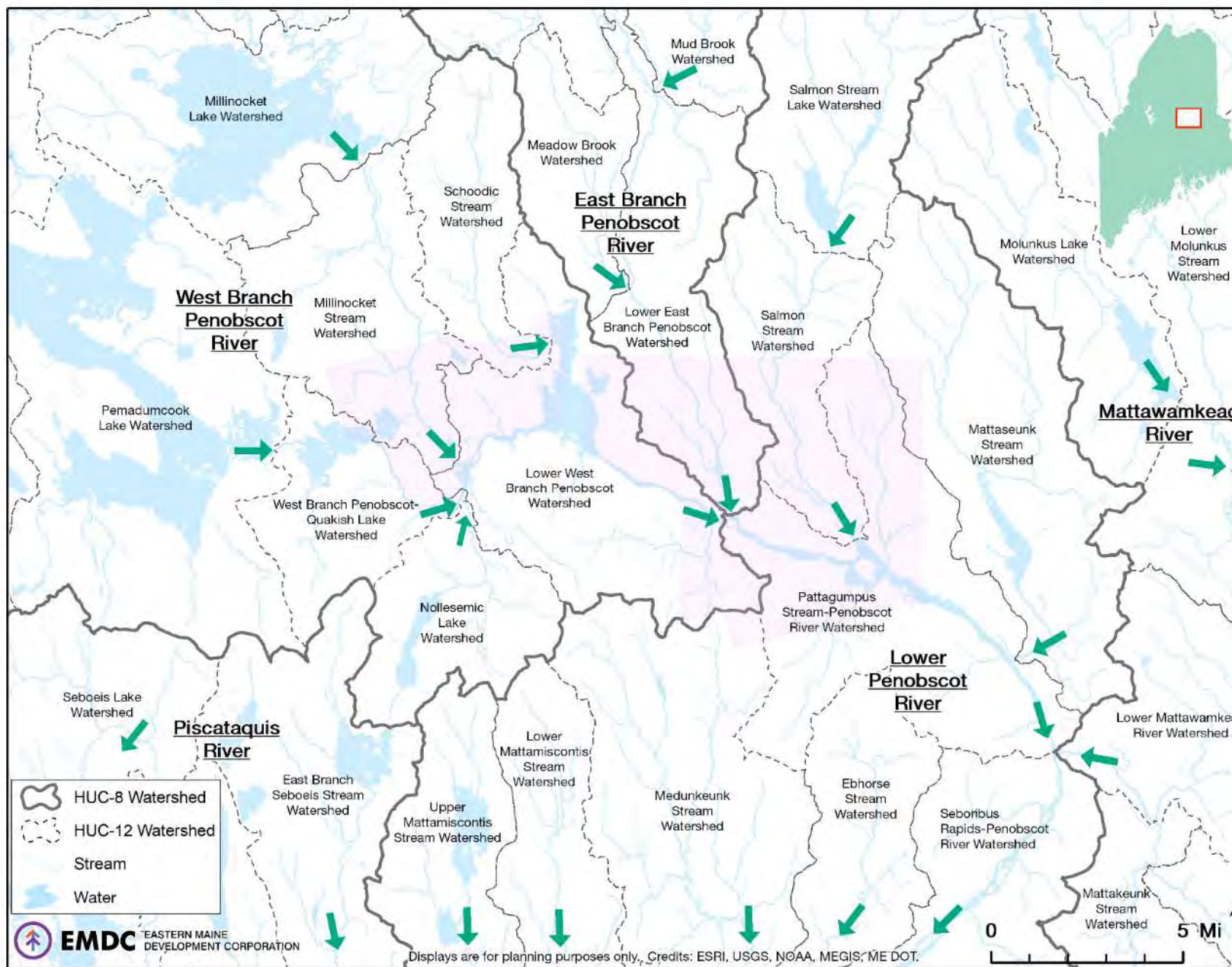
³ <https://www.maine.gov/dep/water/monitoring/classification/> Accessed December 17, 2019.

Public Access

In Millinocket, significant bodies of water include Ferguson Lake, Dolby Pond, Jerry Pond, Partridge Brook Flowage, Shad Pond, and the West Branch Penobscot River. These water bodies offer access to the public for recreational uses. East Millinocket abuts Millinocket and contains portions of Dolby Pond and Partridge Brook Flowage. Spencer Brook and portions of the Penobscot River do not offer public access points/landings.

In Medway, there is the Penobscot River, including portions of the West Branch Penobscot River and East Branch Penobscot River which offer public access for boating and fishing.





Notable Parties

Maine Association of Conservation Commissions¹

Conservation commissions aim to promote stewardship of our natural resources. They conduct research, collaborate with planning and policy experts, educate local citizens and visitors, and advise government officials. Maine law permits municipalities to establish conservation commissions, requiring them to inventory any undeveloped areas and advise on their best use.²

Maine Drinking Water Program³

The State of Maine Drinking Water Program (DWP) is responsible for enforcing the Federal Safe Drinking Water Act in Maine and has primary responsibility for administering the State's Rules Relating to Drinking Water. The DWP receives funding from both the United States Environmental Protection Agency and the regulated community. Public water suppliers pay an annual fee, allocated by the DWP, Maine Rural Water Association (MRWA), and the Maine Water Utilities Association (MWUA). This cooperative funding effort was developed to allow Maine companies to be regulated by local regulators. The DWP regulates over 2,200 public water systems in Maine.

Maine Rural Water Association (MRWA)⁴

The MRWA is a non-profit organization that seeks to represent rural water and wastewater operators and consumers across the State. By providing specialized assistance, training, advocacy, as well as hands-on technical support to rural communities, the organization is helping to coordinate Federal and State efforts across a typically underserved and under-resourced region. Services range from education and training, to leak detection, process control, compliance, and water source protection.

Maine Water Utilities Association (MWUA)⁵

The MWUA is a non-profit membership organization of utility operators. The services the organization offer range from education, publication, annual trade shows, member recognition, scholarship funding, and advocacy.

¹ <https://www.meaccme.org/> Accessed December 17, 2019.

² https://24ec25ec-8bce-4bf0-a92f-c8b231793360.filesusr.com/ugd/42a857_3999169d8e504c22a029c744f4d1f904.pdf Accessed December 17, 2019.

³ <https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/index.shtml> Accessed December 17, 2019.

⁴ <https://www.mainerva.org/> Accessed December 17, 2019.

⁵ <https://mwua.org/> Accessed December 17, 2019.

Strategies & Policies

In order to protect, promote, and preserve the quality of the State of Maine's surface water and water resources, including but not limited to lakes, rivers, streams, aquifers, and wetlands, local policies and implementation strategies have been developed in addition to the following state policies and strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To protect current and potential drinking water sources.
2. To protect significant surface water resources from pollution and improve water quality where needed.
3. To protect water resources in growth areas while promoting more intensive development in those areas.
4. To protect surface water quality.
5. To minimize pollution discharges through the upgrade of existing public sewer systems and wastewater treatment facilities.
6. To cooperate with neighboring communities and regional/local advocacy groups to protect water resources.

Strategies:

Minimum strategies to meet state goals:

1. Adopt or amend local land use ordinances as applicable to incorporate stormwater runoff performance standards consistent with:
 - a. Maine Stormwater Management Law and Maine Stormwater regulations (Title 38 M.R.S.A. §420-D and 06-096 CMR 500 and 502)
 - b. Maine Department of Environmental Protection's allocations for allowable levels of phosphorus in lake/pond watersheds.
 - c. Maine Pollution Discharge Elimination System Stormwater Program
2. Consider amending local land use ordinances, as applicable, to incorporate low impact development standards.
3. Where applicable, develop an urban impaired stream watershed management or mitigation plan that will promote continued development or redevelopment without further stream degradation.
4. Maintain, enact or amend public wellhead and aquifer recharge area protection mechanisms, as necessary.
5. Encourage landowners to protect water quality. Provide local contact information at the municipal office for water quality best management practices from resources such as the Natural Resources Conservation Service, University of Maine Cooperative Extension, Soil and Water Conservation district, Maine Forest Service, and/or Woodland Owners of Maine.
6. Adopt water quality protection practices and standards for construction and maintenance of public and private roads and public properties and require their implementation by contractors, owners, and community officials and employees.
7. Participate in local and regional efforts to monitor, protect and, where warranted, improve water quality.
8. Provide educational materials at appropriate locations regarding aquatic invasive species.

Time Frame: Ongoing

Responsible Agent(s): Maine DEP, Maine DACF, East Millinocket, Millinocket, Medway.

Local

Millinocket

1. **Policy:** To ensure access to waterways for appropriately treated wastewater.
Strategies: Monitor Maine State Legislation, consult with legal advisors as needed, build relationship with local Tribe(s) to assess similar goals.
Time Frame: 2020-2030
Responsible Agent(s): Municipal government, elected officials and Town Manager, Wastewater Department director, Maine Legislature, legal advisors, State Elected Officials.
2. **Policy:** To expand access to waterways for public access to enhance recreation and tourism.
Strategies: Seek State and/or Federal funding for building of paths, signage, and maps.
Time Frame: 2020-2025
Responsible Agent(s): Municipal government, elected officials and Town Manager, Recreation Department director, Recreation Advisory Committee.

East Millinocket

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):

Medway

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):

Chapter Five:

NATURAL RESOURCES

Goals/Vision

State Goal

To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shore lands, scenic vistas, and unique natural areas.

Local Goals

Millinocket

To implement new, and support existing, sustainable harvesting practices as needed to ensure truly renewable and resilient natural resources for the benefit of future generations and habitat regeneration.

East Millinocket

To restore the shore of the West Branch of the Penobscot River along and near Spencer Brook. To create a walking area along the river, to create a canoe/kayak launch area, and to restore Spencer Brook and its head ponds to enable IF & W to restock the brook with trout on an annual basis. To enable the East Millinocket water supply source from the East Branch of the Penobscot along the gravel pack esker to remain viable into the future.

Introduction

Protecting the State's natural resources is vital for our economy, our environment, and our future. Unmitigated air and water pollution led to the passage of the Clean Air (1963) and Clean Water (1972) Acts and the creation of the Environmental Protection Agency (1970). These efforts have paid off: according to the Maine Development Fund and the Maine DEP, Maine experienced 30 days of unhealthy air quality in 2018 – down from 95 days in 1985.¹ Maine's water bodies have also improved: 95% of rivers and streams and 91% of lakes achieve a rating of category one or two, compared to a national average of 47% of rivers and streams and 29% of lakes meeting the same criteria.²

These successes are achieved through coordination of Federal, State, and local resources. In Maine, towns and cities are committed to the abundance and preservation of our shared natural resources. This is achieved through the Comprehensive and Land Use Regulation Act (MRSA Title 30-A, §4312, §4326.1.C, and §4326.3-A.D.), which requires planning to preserve and maintain resources such as “wetlands, wildlife and fisheries habitats, significant plant habitats, coastal islands, sand dunes, scenic areas, shorelands, and heritage coastal areas.” A municipality may adopt more stringent regulations than required by State law.

¹ <https://www.mdf.org/wp-content/uploads/2019/04/MOG-FullReport2019-FNL.pdf> Accessed December 23, 2019.

² <https://www.mdf.org/wp-content/uploads/2019/04/MOG-FullReport2019-FNL.pdf> Accessed December 23, 2019.

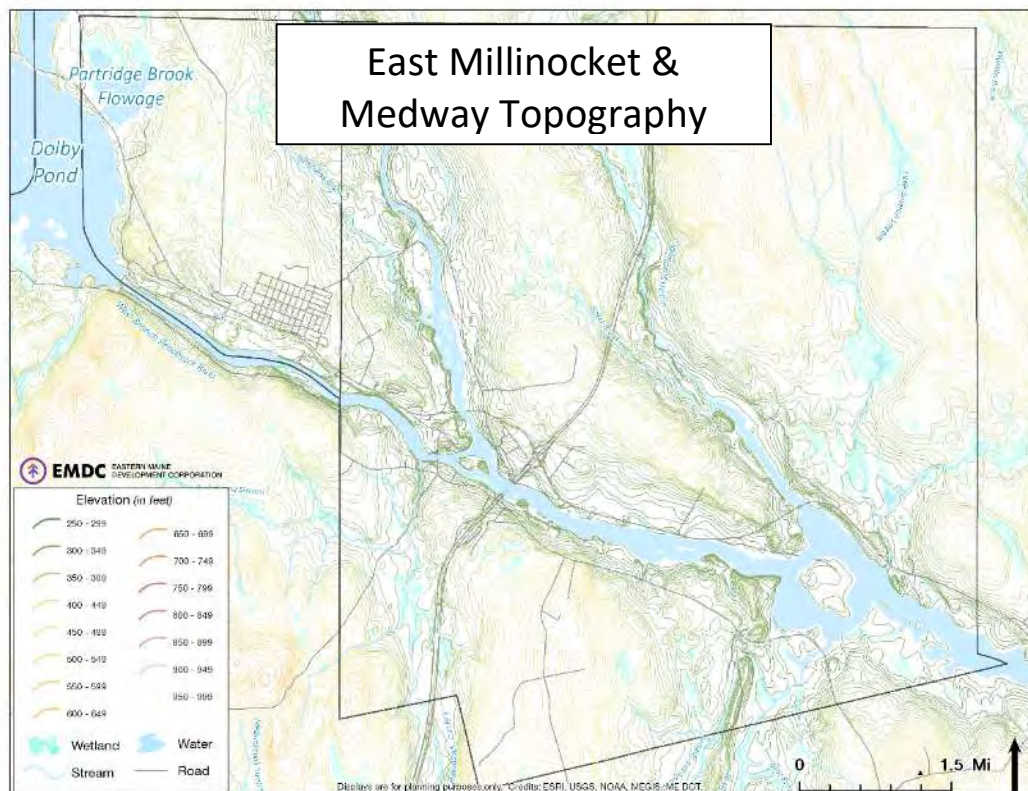
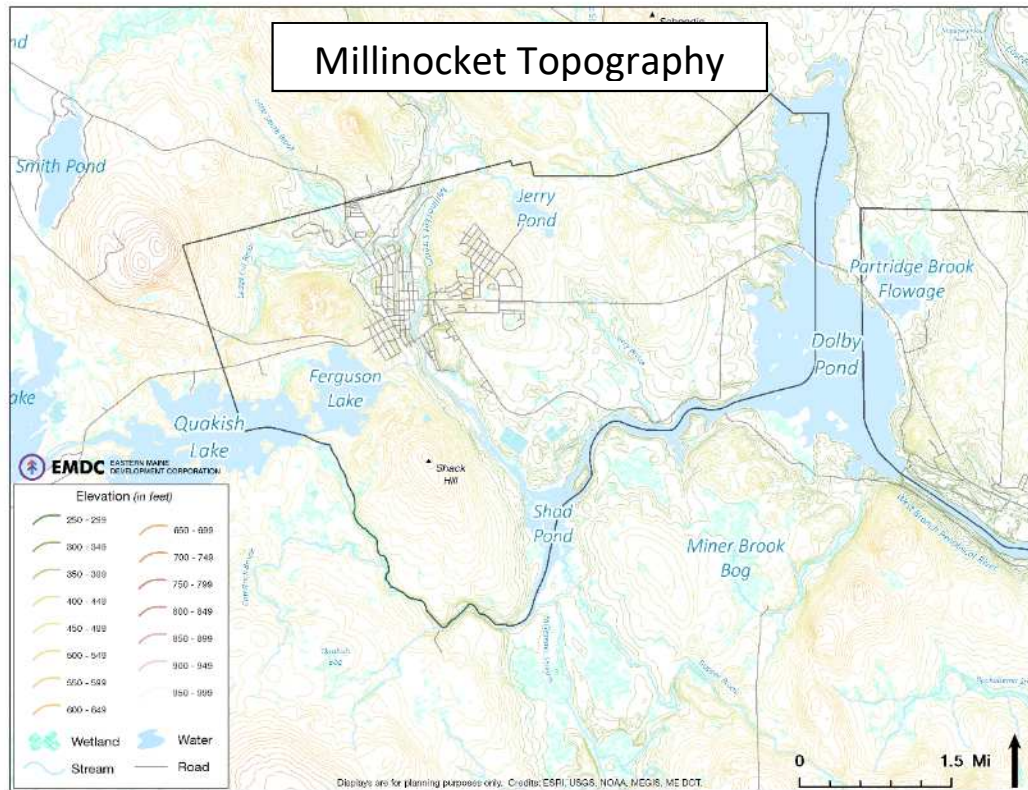
Inventory of Natural Resources

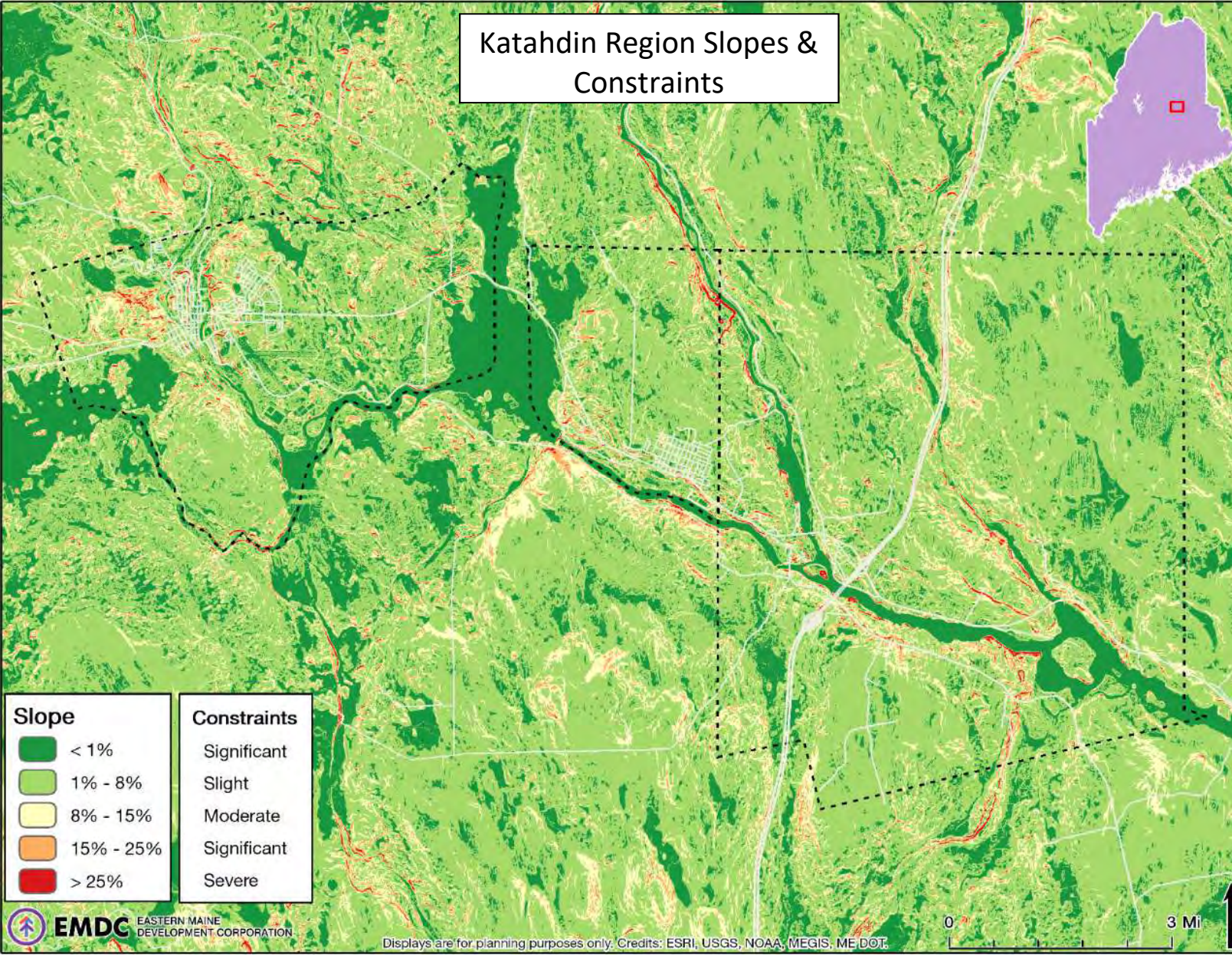
Topography

The towns of East Millinocket, Millinocket and Medway are located in northern Penobscot County, Maine. These three communities are accessed directly from the I-95 interstate highway, exiting onto ME-157 to travel through Medway to East Millinocket leading to Millinocket. This region is a gateway to the remote and sparsely populated northern interior: the 3.5 million acre Maine North Woods; the 210,000-acre Baxter State Park and Maine's highest peak – Mount Katahdin at 5,267 feet elevation; as well as the 87,000-acre Katahdin Woods and Waters National Monument and the 89-mile Scenic Byway. Millinocket's highest peak is a hill of 626 feet just north of Ferguson Lake near Golden Road and Route 11. Millinocket's lowest elevation is 336 feet along the western shore of Dolby Pond. East Millinocket's highest point is 490 feet just east of the Partridge Brook Flowage and its lowest point is along the banks of the East Branch Penobscot River at 251 feet. Medway's highest point is a hill of 620 feet located east of I-95 crossing into T1 R6 WELS, and its lowest elevation of 239 feet is along the confluence of the East and West Branch Penobscot Rivers.

Using Landsat multi-spectrum satellite imagery, the United States Geological Survey (USGS) is able to classify the low resolution land use of much of the country. This is valuable because it reflects real land coverage rather than zoning or use designations. The datasets are collected over the course of several months and compiled every three to five years.

National Land Cover Database, 2016 (area in Square Miles)						
NLCD Cover Class	E Millinocket		Medway		Millinocket	
	Area	%	Area	%	Area	%
Open Water	0.866	10.9%	2.281	5.3%	2.240	12.3%
Developed, Open Space	0.254	3.2%	0.715	1.6%	0.747	4.1%
Developed, Low Intensity	0.295	3.7%	0.785	1.8%	0.649	3.6%
Developed, Medium Intensity	0.367	4.6%	0.300	0.7%	0.942	5.2%
Developed, High Intensity	0.143	1.8%	0.084	0.2%	0.452	2.5%
Barren Land	0.104	1.3%	0.287	0.7%	0.105	0.6%
Deciduous Forest	0.386	4.9%	2.276	5.2%	0.659	3.6%
Evergreen Forest	1.277	16.1%	9.658	22.2%	4.108	22.6%
Mixed Forest	2.100	26.5%	17.525	40.4%	3.744	20.6%
Shrub/Scrub	0.414	5.2%	1.402	3.2%	1.307	7.2%
Herbaceous	0.329	4.2%	1.584	3.6%	0.584	3.2%
Hay/Pasture	0.160	2.0%	0.478	1.1%	0.177	1.0%
Cultivated Crops	0.002	0.0%	0.015	0.0%	0.001	0.0%
Woody Wetlands	1.107	14.0%	5.735	13.2%	2.268	12.5%
Emergent Herbaceous Wetlands	0.110	1.4%	0.284	0.7%	0.209	1.1%
Total	7.915		43.407		18.192	
Source: United State Geological Service						





Katahdin Region Land Classification

Land Cover: 2016

Classification

	Open Water		Developed, Open Space
	Emergent Wetlands		Developed, Low Intensity
	Woody Wetlands		Developed, Medium Intensity
	Grassland/Herbaceous		Developed, High Intensity
	Shrub/Scrub		Hay/Pasture
	Mixed Forest		Cultivated Crops
	Deciduous Forest		Barren Land
	Evergreen Forest		Unclassified

Soils and Geology

The character of Maine and New England landscapes is inherited from the tumultuous geologic history of our continental crusts. Over 1.5 billion years, volcanism and mountain building events, erosion and sedimentation, and metamorphic processes built up the folds and faults under our feet. Much of the Katahdin region is underlain with bedrock formed in the Silurian (limy marine shale as well as lime-bearing gneiss and schist), and Devonian (marine sandstone and slate with granite, granodiorite, and gabbro) periods between 443 and 359 million years ago.¹ In northern and eastern parts of the State fossils remain in the shale and sandstone and reflect eras of marine deposition.

The Katahdin region bedrock was created during the Ordovician (485 to 444 Million years ago), the Silurian (444 to 420 Mya), and the Devonian (419 to 360 Mya) periods. Millinocket and Medway contain bedrock areas of quartzite, slate, and sandstone, while East Millinocket contains bedrock of slate, sandstone, and mudstone. Deposits of chert to the north in T1 R8 WELS, T2 R8 WELS, and Soldiertown Twp are significant as they are the primary constituent of flint, an important resource for pre-Columbian indigenous peoples.

Between 95,000 and 20,000 years ago, ice buried the region under the 2,000-foot-thick Laurentide and Labrador glaciers.² This glacial activity is evident in the mountain cirques, eskers, drumlins, moraines, kettle lakes, and *roches moutonnées* (or sheepbacks) that traverse the landscape. By 10,000 years ago, Maine was mostly free of glacial ice, leaving behind deep valleys and hills covered in till – the jumbled soil and stones scraped from the landscape. Other areas exposed to the grinding action of the glaciers were left with little to no topsoil. As a result, the depth of soil to bedrock in the State is extremely variable. Large sand dunes were spread across the State by winds and by streams, leaving numerous and abundant deposits. As the glaciers retreated, a procession of plant and animal species followed the warming terrain, often stranding glacial relics such as dwarf birch, Katahdin arctic butterfly, alpine bilberry, and Bigelow's sedge.³

This complex history somewhat explains the dynamics in soils and minerals found in the region. Many areas of rich, fertile soil were interspersed with mining and quarrying activities for sand and gravel, granite, slate, limestone, gemstones, zinc, and copper. Katahdin Iron Works – in operation between 1843 and 1890 – produced up to twenty tons of pig iron daily, a vital resource for the nation's steel industries.⁴ This operation also burned 20,000 cords of wood every year, depleting local forests and greatly limiting the local sustainability of iron production.

Soils in the region are typically mixtures of glacial sediments and till. Widespread regional soil types include:

- Monarda-Burnham Complex Soil (18%): variable slopes, stony to very stony, and found on upland drumlin ridges. The primary parent material is loamy, lodgment till with depth to root restrictive layers between 5 and 27 inches. This soil is generally poorly drained with little water movement, meeting hydric – or wetland – criteria.
- Plaisted Loam Soil (18%): slopes between 8% and 60%, very stony, and found on drumlin ridges, hills, and uplands. The primary parent material is coarse-loamy lodgment till with depth

¹ https://www.fema.gov/media-library-data/20130726-1738-25045-6190/maine_bedrock_map.pdf Accessed December 19, 2019.

² <https://maineencyclopedia.com/geology/> Accessed December 19, 2019.

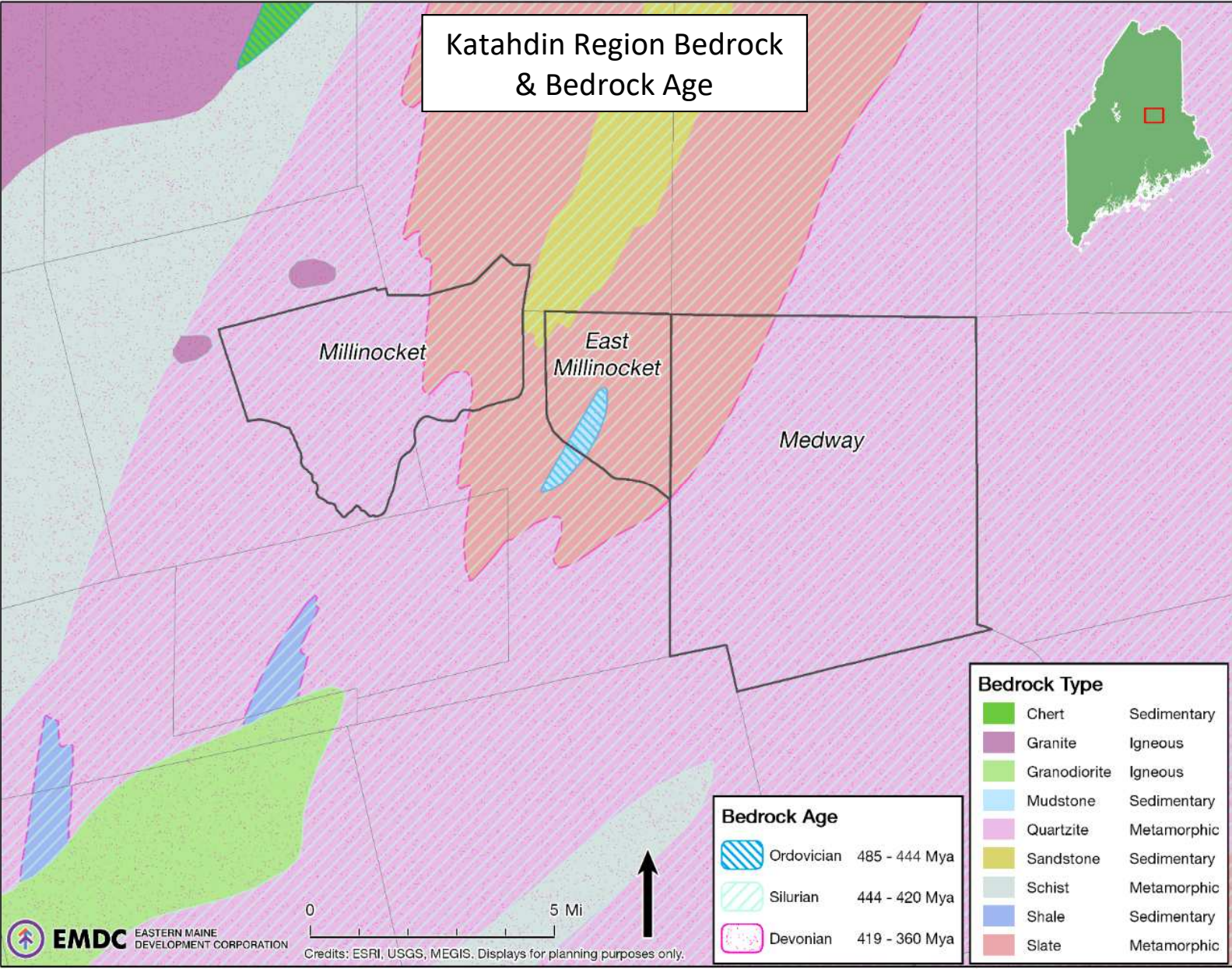
³ <https://www.maine.gov/dacf/mnap/features/communities/dwarfheath.htm> Accessed December 20, 2019.

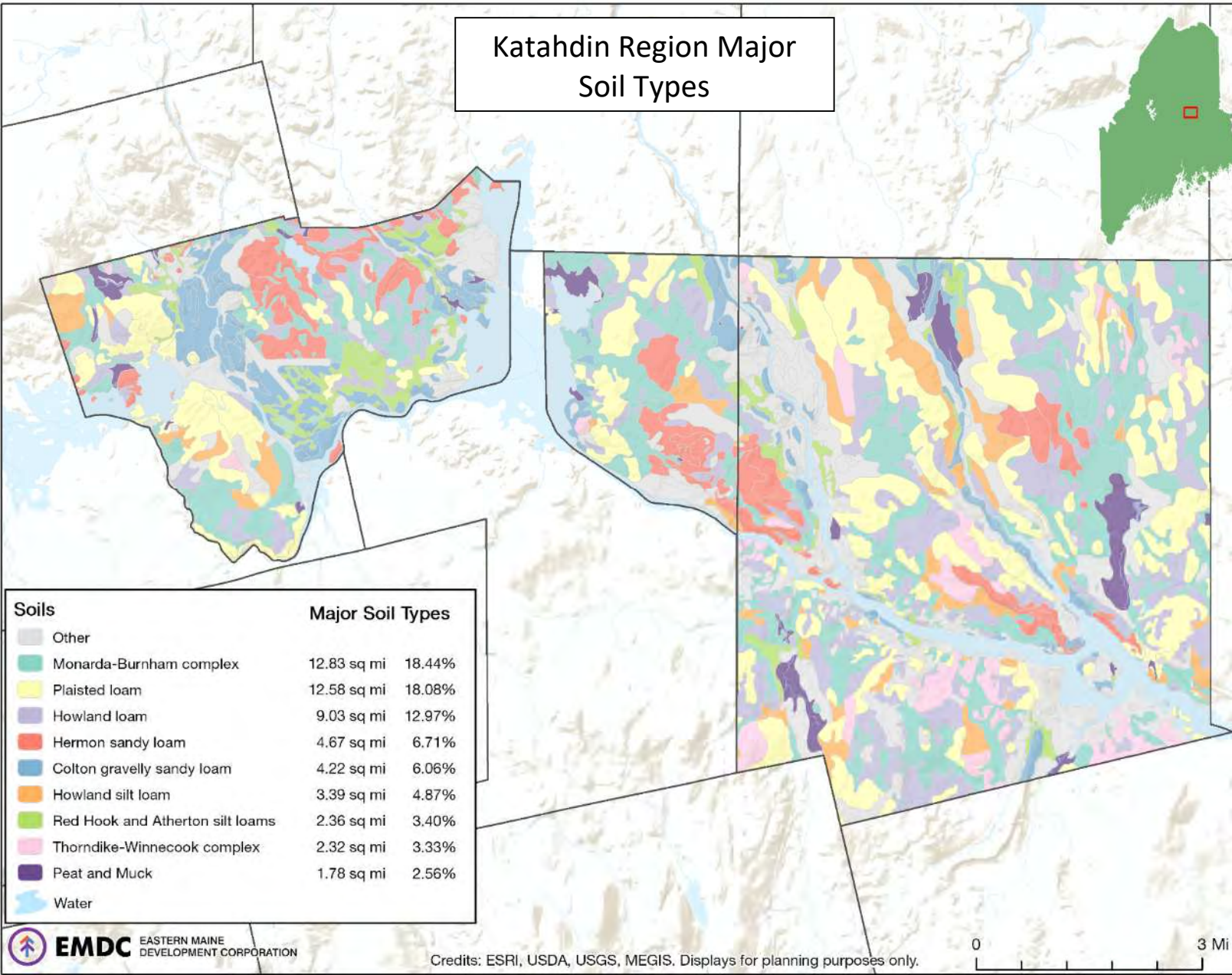
⁴ https://www.maine.gov/dacf/parksearch/PropertyGuides/PDF_GUIDE/KatahdinIronWorks.pdf Accessed December 20, 2019.

to root restrictive layers between 22 and 34 inches. This soil is well drained and water movement is moderately low. As such, this soil does not meet hydric criteria.

- Howland Loam Soil (13%): slopes between 0% and 8%, very stony, and found on ground moraines and till plains. The primary parent material is coarse-loamy lodgment till with a depth to root restrictive layer of 21 to 33 inches. This soil is moderately well drained with moderate water mobility. This soil does not meet hydric criteria.

These three soil types constitute nearly 50% of the three towns' subsurface soils. It should be noted that much of the soil survey data available is intended for planning and research purposes rather than for use in construction or engineering.





Climate

The climate in the Katahdin region is *humid continental* – Dfb in the Köppen classification system – which is typified by dramatic seasonal temperature fluctuations and year-round precipitation.¹ Climate has had an indelible impact on Maine’s culture and economy, especially its long winters. However, the historic trends we have adapted to may be changing. For example, historic ice out dates – the date where winter ice cover leaves a lake – for large lakes in the region have become earlier by an average of nine days since 1850.² Temperatures in the state have risen an average of 3°F since the beginning of the 20th century along with measured increases in precipitation.³ Experts agree that these trends will bring further shifts in weather, leading to an increase in extreme weather events as well as disruptive changes to our ecoregion.⁴ These trends are collectively known as climate change.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly
Record high	56°F 13°C	62°F 17°C	80°F 27°C	87°F 31°C	96°F 36°C	101°F 38°C	100°F 38°C	100°F 38°C	96°F 36°C	87°F 31°C	72°F 22°C	62°F 17°C	101°F 38°C
Average high	23.7°F -4.6°C	28.4°F -2.0°C	37.9°F 3.3°C	51°F 10.6°C	64.6°F 18.1°C	73.4°F 23°C	78.3°F 25.7°C	76.7°F 24.8°C	67.7°F 19.8°C	54.8°F 12.7°C	41.9°F 5.5°C	30.3°F -0.9°C	52.4°F -11.3°C
Average low	4.3°F -15.4°C	8.3°F -13.2°C	18.1°F -7.7°C	30.9°F -0.6°C	42°F 5.6°C	52.1°F 11.2°C	57.7°F 14.3°C	54.9°F 12.7°C	46.8°F 8.2°C	36.1°F 2.3°C	27.5°F -2.5°C	14.4°F -9.8°C	32.8°F 0.4°C
Record low	-41°F -41°C	-40°F -40°C	-32°F -36°C	-5°F -21°C	19°F -7°C	26°F -3°C	37°F 3°C	32°F 0°C	22°F -6°C	11°F -12°C	-10°F -23°C	-35°F -37°C	-41°F -41°C
Precipitation	2.93 in 74 mm	2.18 in 55 mm	3.06 in 78 mm	3.56 in 90 mm	3.34 in 85 mm	4.07 in 103 mm	3.85 in 98 mm	3.94 in 100 mm	3.72 in 94 mm	4.07 in 103 mm	4.43 in 113 mm	3.53 in 90 mm	42.68 in 1083 mm
Rainy days	3	3.7	5.4	8.4	11.6	11.3	11.4	10.6	10	10.3	8	4.8	98.5
Snowy days	13.6	12	9.4	3.9	0.4	0	0	0	0	1.7	6.2	12.5	59.7

Forest Species

Ecoregions are where ecosystem resources are similar in type, quality, and quantity. The EPA designates different ecoregions, grouping similar characteristics together. The State is located in the Mixed Wood Plains and Atlantic Highlands ecoregions, typical of much of the Great Lakes, southern Ontario and Quebec, and New York and New England. The Katahdin Region is situated in the *Eastern Maine – Southern New Brunswick Plains* and the *Central Foothills* sub-ecoregions (82c and 82d).⁵ Much of Maine is covered by New England-Acadian type forests, where temperate, broadleaf forests readily intermingle with coniferous forest species more typical of the boreal regions of Canada.⁶ Common forest species in the Katahdin region include:⁷

- **Hardwood Forests:** these forests are responsible for our seasonal foliage displays, with dominant canopy trees including sugar maple, red maple, white ash, beech, red oak, and less commonly white oak; pioneer species include quaking aspen, yellow birch, and paper birch.

¹ <https://www.nationalgeographic.org/encyclopedia/koppen-climate-classification-system/> Accessed December 17, 2019.

² http://www.uvm.edu/~pbierman/classes/gradsem/2005fall/hodgkins_et_al_2002.pdf Accessed December 17, 2019.

³ <https://statesummaries.ncics.org/chapter/me/> Accessed December 17, 2019.

⁴ NOAA Data Station Inventory: Millinocket Municipal Airport; data averages 1981-2010.

⁵ <https://www.epa.gov/eco-research/ecoregions-north-america> Accessed December 19, 2019.

⁶ <https://www.worldwildlife.org/ecoregions/na0410> Accessed December 17, 2019.

⁷ https://www.wikiwand.com/en/New_England/Acadian_forests Accessed December 17, 2019.

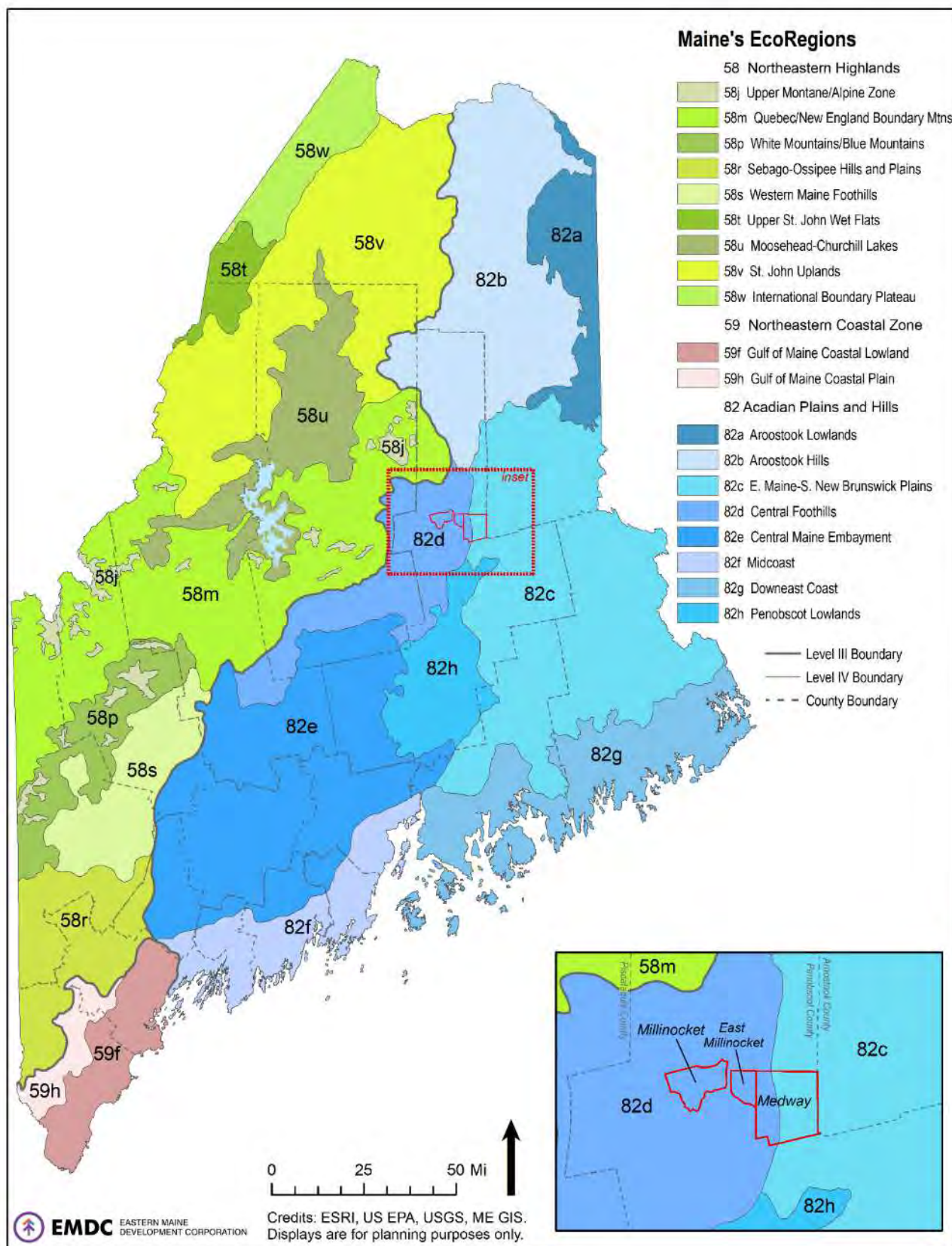
Shrubs and undergrowth include wintergreen, wild sarsaparilla, flowering dogwood, mountain laurel, and wood sorrel.

- Coniferous Forests: common in regions with harsh weather and gravely, acidic soils, these forests are dominated by white pine, red pine, jack pine, red spruce, hemlock, and balsam fir. Shrubs include moosewood, low-bush blueberry, wintergreen, and partridge berry.
- Alpine Forests: more typical of highlands around Mount Katahdin and the White Mountains, these forests commonly include white spruce, alpine bilberry, mountain cranberry, and other heath grasses and sedges.

Wetlands, bogs, and swamps in this region are typified by acidic, saturated soils which push out more typical forest species and create unique habitats. Common tree and shrub species include leather leaf, bog rosemary, Labrador tea, bog laurel, and American cranberry bushes; common in dryer soils are hemlock, northern white cedar, tamarack, balsam poplar, red maple, Atlantic white cedar, tupelo, and black ash. Wetlands are also unique that are home to carnivorous plants such as round-leaved sundews, and pitcher plants.

Common birds and mammals in this region include:

- Birds: wild turkey, mallard duck, wood duck, great horned owl, black-capped chickadee, white-throated sparrow, cedar waxwing, loon, great blue heron, red tailed hawk, raven, and pileated woodpecker.
- Mammals: black bear, moose, white-tailed deer, coyote, red fox, snowshoe hare, bobcat, porcupine, river otter, fisher, marten, muskrat, raccoon, and red squirrel.



Rare, Threatened, and Endangered Species

The Katahdin region is home to many important and locally rare species. Identified habitats for bird species such as the American Pipit are found in Baxter State Park. Important Brook Trout habitat stretches along the West Branch Penobscot River in Quakish Lake, west of the Quakish Lake dam. The region is home to several rare mussel species which are vulnerable to pollution and to habitat loss from dams and levees. State Threatened species include Roaring Brook Mayfly, Pygmy Snaketail, Northern Bog Lemming, Yellow Lampmussel, Tidewater Mucket, and Brook Floater. Endangered species in the state consist of Sedge Wren, American Pipit, Peregrine Falcon, Redfin Pickerel, Cobblestone Tiger Beetle, and Katahdin Arctic Butterfly. Maine's only endemic plant, Orono Sedge, grows in the region covered by the Plan. Orono Sedge is ranked as rare in Maine by the Maine Natural Areas Program and ranked as globally rare by NatureServe.¹

Common Name	Latin Name	Threat Level	Type	Location
Sedge Wren	<i>Cistothorus platensis</i>	Endangered	Bird	South of Aroostook County
American Pipit	<i>Anthus rubescens</i>	Endangered	Bird	Baxter State Park
Peregrine Falcon	<i>Falco peregrinus</i>	Endangered	Bird	Central Maine
Redfin Pickerel	<i>Esox americanus</i>	Endangered	Fish	Penobscot River Watershed
Cobblestone Tiger Beetle	<i>Cicindela marginipennis</i>	Endangered	Insect	Central and Southern Maine
Katahdin Arctic Butterfly	<i>Oeneis polixenes katahdin</i>	Endangered	Insect	Baxter State Park
Roaring Brook Mayfly	<i>Epeorus frisoni</i>	Threatened	Insect	Baxter State Park
Pygmy Snaketail	<i>Ophiogomphus howei</i>	Threatened	Insect	East Branch Penobscot River
Northern Bog Lemming	<i>Synaptomys borealis</i>	Threatened	Mammal	Baxter State Park
Yellow Lampmussel	<i>Lampsilis cariosa</i>	Threatened	Mollusk	Penobscot River Watershed
Tidewater Mucket	<i>Leptodea ochracea</i>	Threatened	Mollusk	Penobscot River Watershed
Brook Floater	<i>Alsmidonta varicose</i>	Threatened	Mollusk	Penobscot River Watershed
Orono Sedge	<i>Carex oronensis</i>	Vulnerable	Plant	Penobscot River Watershed

¹ <https://www.maine.gov/dacf/mnap/features/rank.htm> Accessed December 1, 2020.

Katahdin Region Endangered, Threatened, or Rare Species

Endangered, Threatened, or Rare Species

-  Bald Eagle
-  Brook Floater Mussell
-  Creeper Mussell
-  Tidewater Mucket Mussell
-  Pygmy Snaketail Dragonfly
-  Yellow Lampmussel
-  Brook Trout Habitat
-  Orono Sedge
-  Deer Wintering Yards
-  Inland Waterfowl/Wading Bird Habitat

Significant Wildlife Habitats

The Katahdin Region is home to various animal species whose habitats ensure their ecological health and well-being. The Maine Department of Environmental Protection (MDEP) regulates Significant Wildlife Habitats under the Natural Resources Protection Act (NRPA). There are six Significant Wildlife Habitats, which include Deer Wintering Areas (DWA), Inland Waterfowl/Wading bird Habitat (IWWH), Seabird Nesting Islands (SNI), Shorebird areas, Significant Vernal Pools (SVP), and Tidal Waterfowl/Wading bird Habitat (TWWH), three of which are notably present in the Katahdin Region and northern Maine.¹ These important habitats offer protection and support to the species that reside within them.

Notable locations of Significant Wildlife Habitats in the Katahdin Region are in Baxter State Park in Millinocket. The park provides over 7,000 acres of Inland Waterfowl/Wading Bird Habitat and 95 acres of Deer Wintering Area. While Inland Waterfowl/Wading Bird Habitat offers safe nesting habitat and feeding areas, Deer Wintering Areas provide forested spaces in which deer can be sheltered from winter winds and deep snow.² The preservation of the land area at Baxter State Park ensures the long-term presence of these vital habitats and the species they support.

The greater region of northern Maine contains Significant Vernal Pool Habitat in which amphibian populations are abundant. Common amphibian species in northern Maine are Wood Frogs and Spotted & Blue Spotted Salamanders. In 2007, the Maine Department of Environmental Protection designated Significant Vernal Pool Habitat to be protected by law under the Natural Resources Protection Act.³

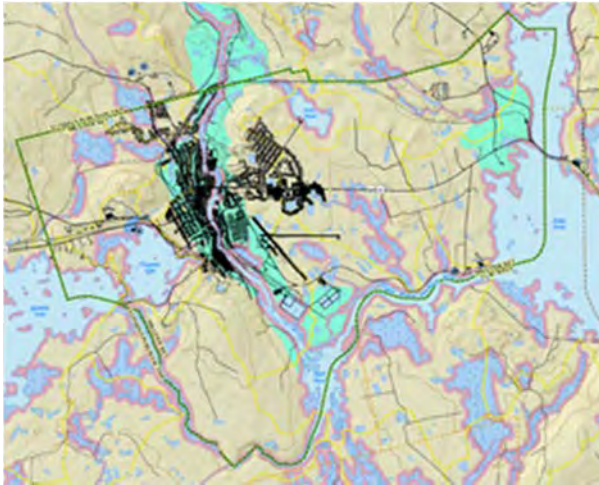
To ensure the protection and conservation of Significant Wildlife Habitats in the Katahdin Region, Millinocket, East Millinocket and Medway will consult with state agencies for technical assistance, guidance, and to form proposed measures to employ.

¹ <https://www.maine.gov/ifw/fish-wildlife/wildlife/environmental-review/significant.html> Accessed October 30, 2020.

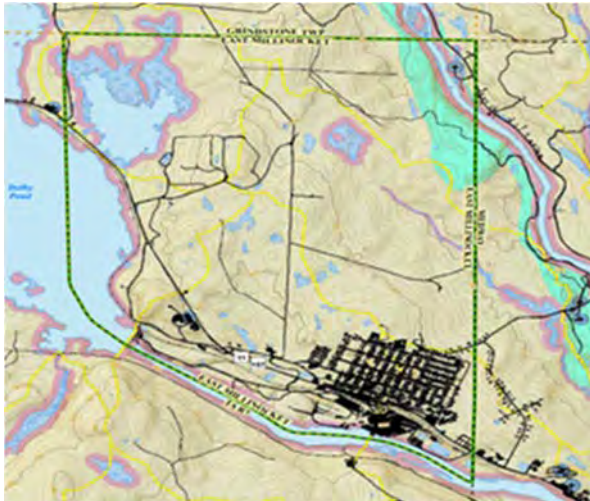
² https://www1.maine.gov/dacf/mnap/focusarea/baxter_region_focus_area.pdf Accessed October 30, 2020.

³ <https://www.maine.gov/dep/land/nrpa/vernalpools/index.html> Accessed October 30, 2020.

Millinocket



East Millinocket



Medway



Water Resources & Riparian Habitats

LEGEND

This map depicts riparian areas associated with major surface water features and important public water resources. This map does not depict all streams or wetlands known to occur on the landscape and should not be used as a substitute for on the ground surveys. This map should be used as a planning reference only and is intended to illustrate the natural hydrologic connections between surface water features. Protecting riparian habitats protects water quality, maintains habitat connections, and safeguards important economic resources including recreational and commercial fisheries.

- Selected Town or Area**
- Organized Township Boundary**
- Unorganized Township**
- Developed** - Impervious surfaces including buildings and roads
- Drainage divides** - These are the smallest hydrologic units mapped in Maine. They contain watershed boundaries for most ponds and rivers in Maine.
- NWI Wetlands** - National Wetlands Inventory (NWI) uses aerial photographs to approximate wetland locations. NWI data is not a comprehensive mapping of wetland resources and typically under represents the presence of wetlands on the landscape. The presence of wetlands needs to be determined in the field prior to conducting activities that could result in wetland disturbance.
- Riparian Habitat** - depicted using common regulatory zones including a 250-foot-wide strip around Great Ponds (ponds ≥ 10 acres), rivers, coastline, and wetlands ≥ 10 acres and a 75-foot-wide strip around streams. Riparian areas depicted on this map may already be affected by existing land uses.
- Shellfish Growing Areas** - The Maine Department of Marine Resources maps growing areas for economically important shellfish resources. This map depicts softshell and hard clam resources in order to illustrate the relation of these resources to streams and shoreline areas vital to their conservation.
- Brook Trout Habitat** - Streams and ponds, buffered to 100 feet, where wild Brook Trout populations have been documented, or managed to enhance local fisheries.
- Public Water Supply Wells**
- Source protection area** - Buffers that represent source water protection areas for wells and surface water intakes that serve the public water supply. Their size is proportional to population served and/or by the type of water supply system. These buffers range from 300 to 2,500 feet in radius.
- Aquifers** - flow of at least 10 gallons per minute

Credits: MEGIS, ME DOT, MDIFW, MDACF, USGS, MEDEP.

Millinocket



East Millinocket



Medway



Credits: MEGIS, ME DOT, MDIFW, MDAF, USGS, MEDEP.

High Value Plant & Animal Habitats

- Organized Township Boundary
- Unorganized Township
- Selected Town or Area of Interest
- Developed: Impervious surfaces such as buildings and roads

Rare, Threatened, or Endangered Wildlife

- Known rare, threatened, or endangered species occurrence and/or the associated habitats based on species sightings.

Consult with an MDIFW regional biologist to determine the relative importance and conservation needs of the specific location and supporting habitat. For more information regarding individual species visit our website, http://www.maine.gov/fw/wildlife/species/endangered_species/state_list.htm, for species specific fact sheets.

The Federal Endangered Species Act requires actions authorized, funded, or carried out by federal agencies be reviewed by the U. S. Fish and Wildlife Service. If your project occurs near an occurrence of the Atlantic Salmon, Roseate Tern, Piping Plover, Canada Lynx, New England Cottontail, Fish's Housewren, or Small-whorled Pagonia contact the Maine Field Office, USFWS, 1168 Main St., Old Town, ME 04468.

Rare or Exemplary Plants and Natural Communities

- Rare Plant Locations

Known rare, threatened, or endangered plant occurrences are based on field observations. Consult with a Maine Natural Areas Program (MNAP) Ecologist to determine conservation needs of particular species. For more information regarding rare plants, the complete list of tracked species and fact sheets for those species can be found at: <http://www.maine.gov/doc/nimc/mnap/features/plantlist.htm>

- Rare or Exemplary Natural Community Locations

The MNAP has classified and distinguished 98 different natural community types that collectively cover the state's landscape. These include such habitats as floodplain forests, coastal bogs, alpine summits, and many others. Each type is assigned a rarity rank of 1 (rare) through 5 (common). Mapped rare natural communities or ecosystems, or exemplary examples of common natural communities or ecosystems, are based on field surveys and aerial photo interpretation. Consult with an MNAP Ecologist to determine conservation needs of particular communities or ecosystems.

Essential Wildlife Habitats

- Roseate Tern Nesting Area or Piping Plover-Least Tern Nesting, Feeding, & Brood-Rearing Area

Maine's Department of Inland Fisheries & Wildlife (MDIFW, www.state.me.us/fw) maps areas currently or historically providing habitat essential to the conservation of endangered or threatened species as directed by the Maine Endangered Species Act (12 MRSA, Chapter 925, Subchapter 3, Sections 12804 and 12806) and regulations (MDIFW Rules, Chapter 8.05). Identification of Essential Habitat areas is based on species observations and confirmed habitat use. If a project occurs partly or wholly within an Essential Habitat, it must be evaluated by MDIFW before state and/or municipal permits can be approved or project activities can take place.

Significant Wildlife Habitats

- Candidate Deer Wintering Area

Forested area possibly used by deer for shelter during periods of deep snow and cold temperatures. Assessing the current value of a deer wintering area requires on-site investigation and verification by IF&W staff. Locations depicted should be considered as approximate only.

- Inland Waterfowl / Wading Bird

Freshwater breeding, migration/staging, and wintering habitats for inland waterfowl or breeding, feeding, loafing, migration, or roosting habitats for inland wading birds.

- Seabird Nesting Island

An island, ledge, or portion thereof in tidal waters with documented, nesting seabirds or suitable nesting habitat for endangered seabirds.

- Shorebird Areas

Coastal staging areas that provide feeding habitat like tidal mud flats or roosting habitat like gravel bars or sand spits for migrating shorebirds

- Tidal Waterfowl / Wading Bird

Breeding, migrating/staging, or wintering areas for coastal waterfowl or breeding, feeding, loafing, migrating, or roosting areas for coastal wading birds. Tidal Waterfowl/Wading Bird habitats include aquatic beds, eelgrass, emergent wetlands, mudflats, seaweed communities, and reefs.

- Significant Vernal Pools

A pool depression used for breeding by amphibians and other indicator species and that portion of the critical terrestrial habitat within 250 ft of the spring or fall high water mark. A vernal pool must have the following characteristics: natural origin, nonpermanent hydroperiod, lack permanently flowing inlet or outlet, and lack predatory fish.

Maine's Natural Resources Protection Act

Maine's Natural Resources Protection Act (NRPA, 1988) is administered by the Maine Department of Environmental Protection (MDEP; <http://www.maine.gov/dep/bwq/docstand/nrpapage.htm>) and is intended to prevent further degradation and loss of natural resources in the state, including the above Significant Wildlife Habitats that have been mapped by MDIFW. MDEP has regulatory authority over most Significant Wildlife Habitat types. The regional MDEP office should be consulted when considering a project in these areas.

Atlantic Salmon Spawning/Rearing Habitat

- Atlantic Salmon Rearing Habitat
- Atlantic Salmon Spawning Habitat
- Atlantic Salmon Limited Spawning Habitat

Mapped by Atlantic Salmon Commission (ASC) and US Fish & Wildlife Service (USFWS) from field surveys on selected Penobscot and Kennebec River tributaries and the Dennys, Ducktrap, East Machias, Machias, Pleasant, Narraguagus, and Sheepscot Rivers.

Millinocket






East Millinocket



Medway



Undeveloped Habitat Blocks & Connectors and Conserved Lands

-  Organized Township Boundary
-  Unorganized Township
-  Selected Town or Area of Interest

Habitat Blocks



Development Buffer (*pale transparency*)

250-500 foot buffer around improved roads and developed areas based on development intensity.

Undeveloped Habitat Block

Remaining land outside of Development Buffers. Blocks greater than 100 acres are labeled with their estimated acreage.

Approximate Road Crossing Habitat Connections

Represented habitat connections identified through computer modeling highlight locations where quality habitat is likely to occur on both sides of a given road between undeveloped habitat blocks greater than 100 acres and between higher value wetlands. These representations are approximate and have not been field verified.

Undeveloped Block Connectors

Likely road crossing areas linking undeveloped habitat blocks greater than 100 acres. The threat of habitat fragmentation and animal mortality corresponds to traffic volume.



Yellow lines represent habitat road crossings with daily traffic volumes less than 2000 vehicles per day.



Red lines represent habitat road crossings with daily traffic volumes greater than 2000 vehicles per day.

Riparian Connectors

Likely crossing locations for wetland dependent species moving between waterways and wetlands divided by roads



Blue lines represent riparian road crossings with daily traffic volumes less than 2000 vehicles per day.



Purple lines represent riparian road crossings with daily traffic volumes greater than 2000 vehicles per day.



Highway Bridge Connectors

Highway bridges along I-95 and I-295 that span riparian habitat connecting adjacent but separated habitat blocks. These are locations where species are likely to take advantage of infrastructure to move between habitat blocks.

Conserved Lands

The State of Maine's conserved lands database includes lands in federal, state, and non-profit ownership. It does not include many privately owned conservation lands, especially those protected by local land trusts, or town owned conservation lands. For the most accurate and current information about land ownership, consult with the local assessor and/or other local land management agencies. If public access potential to any of the properties displayed here is uncertain, landowners should be contacted to determine if permission is necessary.

Ownership Type (*transparent layers*)



Federal

National parks, forests, and wildlife refuges. (Includes Canadian conserved lands.)



State

Wildlife Management Areas and other properties managed by the Department of Inland Fisheries and Wildlife, state parks, and parcels managed by the Bureau of Parks & Lands.



Municipal

Town parks, athletic fields, community forests, etc.



Private Conservation

Properties owned and managed by private (usually non-profit) organizations such as The Nature Conservancy, Maine Coast Heritage Trust; Trust for Public Land, and local land trusts.



Easement

Voluntary legal agreements that allow landowners to realize economic benefit by permanently restricting the amount and type of future development and other uses on all or part of their property as they continue to own and use it.

Credits: MEGIS, ME DOT, MDIFW, MDACF, USGS, MEDEP.

Threats & Protective Measures

Threats

An extremely important keystone species in the New England landscape is the beaver (*Castor Canadensis*). These large rodents build dams to create reservoirs where they access food and expand their territory. The resulting wetlands modify forested landscapes extensively, creating diverse and dynamic habitats seemingly overnight. Nearly hunted to extinction during the 18th and 19th centuries, modern populations are estimated at 10 to 15 million. They are reintroduced across much of New England and are common in the Katahdin region. However, the story of the beaver is not typical of other charismatic New England wildlife.

Since European settlement, many species native to Maine are known to have been declared extinct including the sea mink (1894), the Labrador duck (1878), the great auk (1852), the passenger pigeon (1914), the eastern cougar (2011), and the eastern elk (1877). Other species have been extirpated from Maine's woods, including timber rattlesnakes, woodland caribou, and gray wolves.¹ There are currently 45 species listed as endangered or threatened, while concerns are being voiced about the futures of other important species such as lynx, marten, loon, black-capped chickadee, halibut, and moose.²

The State of Maine Department of Inland Fisheries & Wildlife (MDIFW) identifies and delineates fragile and unique habitats and those species that utilize them. Conserving an array of habitats helps maintain biological diversity and ensures that wildlife and human populations remain healthy. The Maine Endangered Species Act (Title 12, §7751-7760) and the Natural Resources Protection Act (Title 38, §480-B) describe the essential and significant habitats protected under the Growth Management Act. A notable habitat conservation initiative is Beginning with Habitat (BwH), a program that has focused on gathering and distributing habitat data to Maine communities since 2000. The Beginning with Habitat program uses a landscape approach to prioritize the conservation of a variety of native plant and animal habitats, including riparian habitat, high value plant and animal habitats, and undeveloped habitat blocks and habitat connections.³ Despite these efforts, habitat fragmentation and loss of open space represents a pervasive threat to the preservation of contiguous, uninterrupted blocks of habitat. As such, the Growth Management Act recommends preservation of parcels 50 acres or larger which are 1) not divided by a roadway; 2) not separated into parcels for development; 3) not punctuated by more than one dwelling per 25 acres; and 4) buffered by 200-500 feet from roads and development.⁴

A unique endemic species – the Katahdin Arctic Butterfly (*Oeneis polixenes katahdin*) – is known only in the boulder fields and heaths of Mount Katahdin. Recreation and tourism represent a booming part of the State and the Katahdin region's economic vitality. However, those visitors can damage fragile ecosystems such as high-altitude alpine zones, riverine systems, and wetland areas. Baxter State Park limits the number of hikers on the slopes of Mount Katahdin in order to protect these habitats. Visitors to the area are barred from bringing out-of-state firewood, lest they introduce one of a number of tree pests; boats are required to be cleaned to avoid introducing non-native plants; and outdoor enthusiasts are reminded to pack out their wastes and to leave only footprints.

¹ <https://www.maineaudubon.org/news/5-creatures-you-may-not-know-used-to-live-in-maine/> Accessed December 17, 2019.

² <http://thinkmaine.bangordailynews.com/2015/06/04/home/6-species-that-could-disappear-from-maine-within-the-next-generation/> Accessed December 19, 2019.

³ https://www.beginningwithhabitat.org/about_bwh/index.html Accessed October 29, 2020.

⁴ https://www.maine.gov/dacf/municipalplanning/docs/2005manual_lowres.pdf Accessed December 19, 2019.

Several endangered or threatened species inhabit the Penobscot River watershed, such as River Herring, Atlantic salmon, American shad, Atlantic sturgeon, and shortnose sturgeon. However, dams and culverts hinder fish and invertebrate species from passing up and down waterways. Removing dams, installing fish passages and fishways, and replacing culverts all increases the quantity of viable habitat for these species.¹ Pollution also represents a threat to aquatic species, as the concentrations of some pollutants aggregate as streams coalesce. Seven segments of the Penobscot River are listed as impaired, and the Maine DEP recommends consuming no more than one or two fish per month from the Penobscot River south of Mattawamkeag.²

Pathogens, invasive plant and animal species, and other pests have the potential to impact habitat stability in Maine and the Katahdin region. Diseases include chestnut blight, Dutch elm disease, and white pine blister rust. Numerous insect pests include spruce budworm, hemlock wooly adelgid, Asian longhorned beetle, winter moth, browntail moth, and Emerald Ash Borer. Invasive plants compete with native species and inadequately nourish native animals. These include autumn olive, Japanese knotweed, multiflora rose, Norway maple, purple loosestrife, Eurasian milfoil, curly-leaf pondweed, and European frogbit. Many of these pests' diseases are the result of human introduction – quite often deliberate – and threaten our economy as well as our ecosystem. To address these issues, towns and cities need to encourage the use of native plants in gardens and landscaping; encourage locally sourced lumber and firewood; maintain street trees and bushes; and raise awareness of the ongoing necessity for these efforts.

Disease and climate change have also emerged as threats to wildlife in Maine. Warmer winters and increased rainfall has led to a spread of tick- and mosquito-borne diseases. Winter ticks have become a menace to moose populations, as they are unable to remove them effectively. Estimates are that this pest has led to a 70% death rate of moose calves over a three-year period.³ Reducing this mortality rate and ensuring stable populations of moose will be an ongoing challenge.

Finally, one important but often overlooked element to the beauty of rural and scenic places is the darkness of the night sky. *Dark skies* describes places with relatively little ambient light pollution, a common issue in developed areas. This problem represents wasted energy, a nuisance for adjacent properties, as well as disruptions in normal plant and animal behaviors.⁴ As of 2019, there are no officially recognized dark sky sites in New England. Nonetheless, adopting ordinances that minimize light pollution are essential to ensuring that dark skies remain a feature of our untamed spaces.

Protective Measures

Compliance with the Growth Management Act requires that municipalities understand and plan for the constraints imposed by natural features. Regulation and oversight of growth occurs at different levels of government, however municipalities are responsible for adopting and enforcing these practices at the local level. These goals are achieved through **voluntary programs**, through **municipal expenditure**, through **financial incentives**, and by passing **regulation**.

The Mandatory Shoreland Zoning Act (MSZA) requires municipalities to regulate land use activities in all areas within 250 feet of 1) the high-water line of any great pond or river; 2) the upland edge of

¹ <https://www.habitatblueprint.noaa.gov/habitat-focus-areas/penobscot-river-maine/> Accessed December 19, 2019.

² https://www.maine.gov/dep/water/monitoring/305b/2016/28-Feb-2018_2016-ME-IntegratedREPORT.pdf Accessed December 19, 2019.

³ <https://www.sciencedaily.com/releases/2018/10/181017080814.htm> Accessed December 19, 2019.

⁴ <https://www.maine.gov/dacf/municipalplanning/docs/lightingmanual.pdf> Accessed December 19, 2019.

defined wetlands; and 3) all areas within 75 feet of certain stream banks.¹ Municipalities may adopt more stringent ordinances than State guidelines. Millinocket and East Millinocket have designated shoreland and resource protection zones, including habitat protection zoning in Millinocket and an aquifer protection zone in East Millinocket. Medway does not have a local shoreland-zoning ordinance. Much of the territory surrounding these Katahdin region communities is managed by the Land Use and Planning Commission and are subject to LUPC Chapter 10.3 land use standards which include elements of shoreland protection. The organized town of Woodville – to the region’s southeast – has not adopted a local shoreland zoning ordinance.

Preserving open spaces and contiguous blocks of habitat is vital for the protection of habitats and other natural resources. Land trusts operating in the area include: the Forest Society of Maine, Maine Audubon, Maine Farmland Trust, Maine Woodland Owners, New England Forestry Foundation, Northeast Wilderness Trust, The Conservation Fund, and the Trust for Public Land. One of the largest unfragmented blocks of forest is located in the Baxter Region Focus Area, adjacent to the Katahdin Region. If an area has a rare natural community or a globally rare plant or animal, various agencies such as the Maine Department of Inland Fisheries & Wildlife (MDIFW) and U.S. Fish and Wildlife Service (USFWS) may designate the location as a focus area due to its statewide ecological significance.² The Baxter Region Focus Area encompasses 358 square miles of land that is home to Maine’s highest peak, Mount Katahdin, and a variety of rare animal and plant species, including Rock Vole and Alaska Clubmoss, as well as rare natural communities such as Black Spruce Bog.³ Due to the Baxter Region Focus Area’s close proximity to the Katahdin Region and its ecological significance with regard to the species and natural communities that operate within its boundaries, the acknowledgment of its presence is important.

¹ <https://www.maine.gov/dep/land/slz/> Accessed December 20, 2019.

² https://beginningwithhabitat.org/about_bwh/focusareas.html Accessed October 29, 2020.

³ https://www.maine.gov/dacf/mnap/focusarea/baxter_region_focus_area.pdf Accessed October 29, 2020.

Notable Parties

Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS) is an agency of the U.S. Department of Agriculture, and provides leadership and administer programs to help people conserve, improve, and sustain our resources and environment.

Soil and Water Conservation District Program

Maine's sixteen Soil and Water Conservation Districts (SWCDs) are subdivisions of the State government. Generally, their jurisdiction follows county boundaries. The SWCD's purpose is to solve local natural resource conservation problems (both urban and agricultural) as determined by local stakeholders. Not only do districts work with their partners to identify natural resource problems and develop solutions at the local level, they also assist in implementing those measures. This is accomplished by a unique partnership with the US Department of Agriculture Natural Resources Conservation Service (NRCS) and the Maine Department of Agriculture, Conservation, and Forestry (DACF). The Penobscot County SWCD office is located in Bangor.

The Nature Conservancy

Maine Land Trust Network

Maine Association of Conservation Commissions

See Water Resources for description.

Department of Maine Inland Fisheries & Wildlife

See Water Resources for description.

Maine Department of Environmental Protection

See Water Resources for description.

Beginning with Habitat

Maine Natural Areas Program

Strategies & Policies

In order to protect, promote, and preserve the quality of the State of Maine's natural resources, including but not limited to the wildlife and habitat, local policies and implementation strategies have been developed in addition to the following state policies and strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To conserve critical natural resources in the community
2. To coordinate with neighboring communities and regional and state resource agencies to protect shared critical natural resources.

Strategies:

Minimum strategies to meet state goals:

1. Ensure that land use ordinances are consistent with applicable state law regarding critical natural resources.
2. Designate critical natural resources as Critical Resource Areas in the Future Land Use Plan.
3. Through local land use ordinances, require subdivision or non-residential property developers to look for and identify critical natural resources that may be on site by contacting the Maine Natural Areas Program and the Maine Department of Inland Fisheries and Wildlife. Property developers should also act appropriately to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.
4. Through local land use ordinances, require the planning board (or other designated review authority) to include as part of the review process, consultation with the Maine Department of Inland Fisheries and Wildlife and with the Maine Natural Areas Program regarding critical natural resources such as rare animals, significant animal habitats, rare plants, and rare and exemplary natural communities.
5. Initiate and/ or participate in interlocal and/or regional planning, management, and/or regulatory efforts around shared critical and important natural resources.
6. Pursue public/private partnerships to protect critical and important natural resources such as through purchase of land or easements from willing sellers.
7. Distribute or make available information to those living in or near critical or important natural resources about current use tax programs and applicable local, state, or federal regulations.

Time Frame: Ongoing

Responsible Agent(s): Maine Department of Inland Fisheries and Wildlife, Maine DEP, Maine Natural Areas Program, East Millinocket, Millinocket.

Local

Millinocket

- 1. Policy:** To encourage sustainably-managed forests for the benefit of future generations and the health and resilience of the natural environment.
Strategies: Advocate for statewide policy and any associated company's policies to reflect these goals.
Time Frame: Ongoing
Responsible Agent(s): Town of Millinocket, Maine DEP.
- 2. Policy:** To reduce the community's impact on the environment while we redevelop the economic base.
Strategies: Assess current environmental impact on the community and create strategies as needed during redevelopment.
Time Frame: Ongoing
Responsible Agent(s): Town of Millinocket, Millinocket School Department, Maine Forest Service, Maine Department of Agriculture, Conservation and Forestry, Maine Recreation and Parks Association.
- 3. Policy:** To limit the production and disposal of municipal solid waste (MSW) and sewage waste through seeking and adopting any appropriate, innovative and environmentally-friendly approaches.
Strategies: Increase recycling and composting efforts, identify alternative approaches to wastewater treatment, and repurpose waste items.
Time Frame: Ongoing
Responsible Agent(s): Town of Millinocket, Millinocket School Department.

East Millinocket

- 1. Policy:** To protect and preserve the quality of drinking water supply for East Millinocket. This supply is drawn from wells located at Hathaway Farm area in Medway, along the East Branch of the Penobscot River. The water source is an underground, gravel packed aquifer.
Strategies: See J.W. Sewall hydrology study.
Time Frame: Ongoing
Responsible Agent(s): East Millinocket Waterworks, East Branch Sno-Rovers & ATV, the Towns of East Millinocket and Medway.
- 2. Policy:** To remediate the land area near and around Spencer Brook. This land area is the site of the current bark mulch pile located on the former paper mill site along the West Branch of the Penobscot River.
Strategies: Strategic plan for remediation and reuse of the former mill site.
Time Frame: Ongoing
Responsible Agent(s): East Millinocket Selectmen, Town of East Millinocket
- 3. Policy:** To work with the State of Maine in protecting Partridge Brook Flowage (Great Pond) from adverse impacts from the adjacent State-owned landfill.
Strategy: Plan to protect and ameliorate Great Pond from adverse impacts of State-owned landfill.
Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket Selectmen, Town of East Millinocket

Medway

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):

Chapter Six:

AGRICULTURE & FORESTRY

Goals/Vision

State Goal

To safeguard the State's agricultural and forest resources from unplanned or excessive development while promoting the creation of new jobs and businesses while supporting existing land-based industries.

Local Goals

East Millinocket

To identify areas of agriculture and forest resources that are threatened and in need of protection. To identify areas of multi-use recreational areas within the forest resource that could be developed in cooperation with landowners to benefit four-season recreational opportunities.

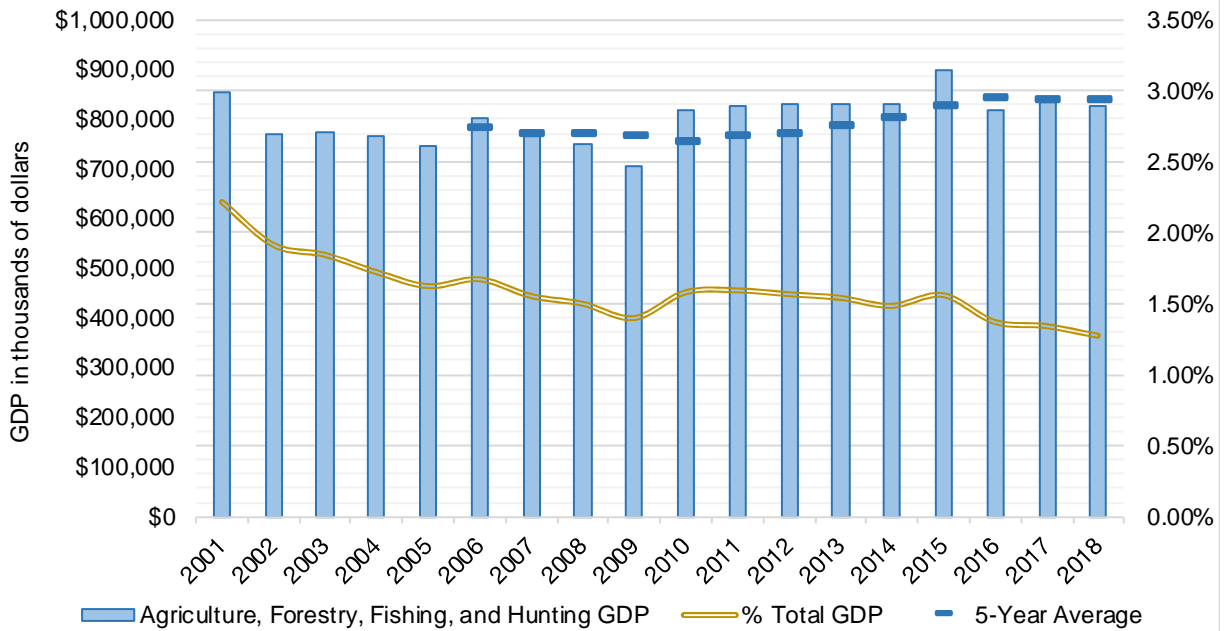
Introduction

At 33,215 square miles, Maine is as large as all other New England states combined. Roughly 29,000 square miles (90%) of that area is forested, while another 2,000 square miles (6%) are occupied by arable farm lands.¹ Agriculture, forestry, fishing, and hunting activities contributed \$825 million to the State economy and \$22 million to Penobscot County's 2018 GDP.² At the State level, this sector has remained stable. County level data reveals more variation in this sector. Following the inconsistency of several large pulp and paper mill operations, county GDP dropped for this sector in the early 00s, regaining a good deal of profitability which has since declined in both dollar value and in percent of GDP. However, agriculture and forestry remain an important part of Maine's economy and culture.

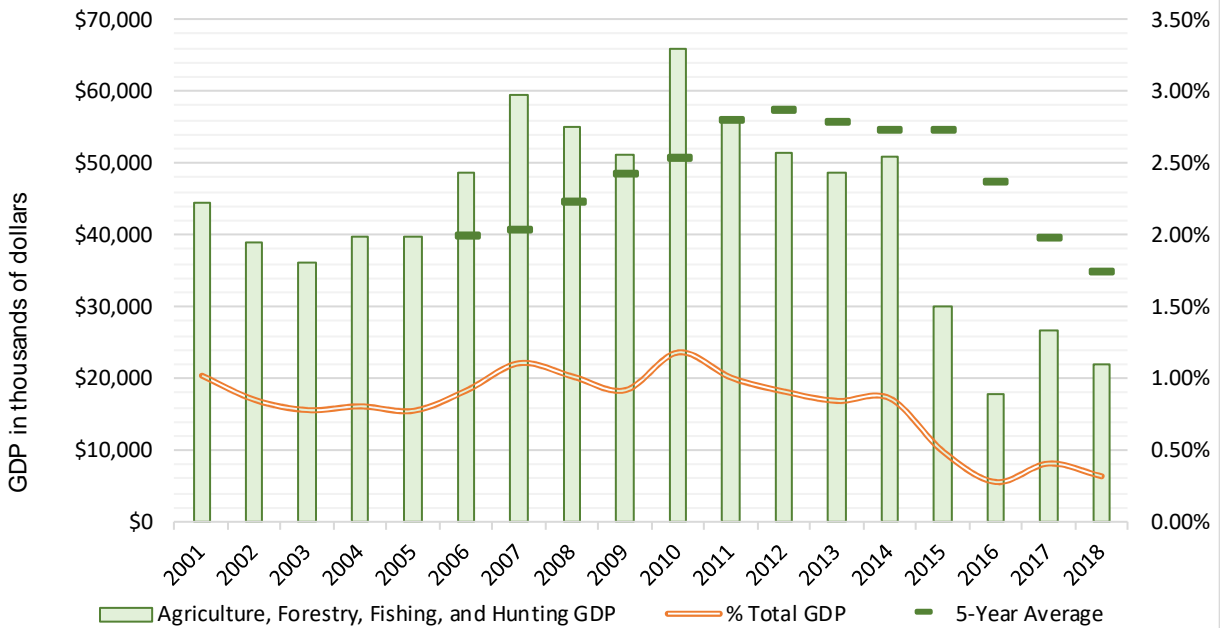
¹ https://www.maine.gov/dacf/municipalplanning/docs/2005manual_lowres.pdf Accessed December 20, 2019.

² <https://www.maine.gov/dafs/economist/> Accessed December 20, 2019.

Maine - Agriculture, Forestry, Fishing, and Hunting GDP (in thousands of 2018 dollars)



Penobscot Cty - Agriculture, Forestry, Fishing, and Hunting GDP (in thousands of 2018 dollars)



Working lands help to balance the municipal tax base. For every dollar in taxes collected by a municipality, forested and agricultural lands require on average \$0.36 in municipal services, generating

a surplus of \$0.64.¹ Residential land uses require more municipal services: for every dollar in taxes collected, a municipality must spend on average \$1.15 on municipal services. In towns and cities experiencing shrinking tax bases, conversion of farmland or working forest to residential uses actually puts more fiscal pressure on those municipalities.

Farmland and forests provide essential ecosystem services such as watershed protection, flood mitigation, and reprieve from wind and heat. Farms support communities directly through food production, while forests produce locally sourced heat and energy as well as building materials. Efforts to encourage sustainable forestry have paid off. Comparing the net growth of forests to the relative harvest rates (where a value over one means that growth exceeds harvests) shows that since 2008, Maine has maintained forest growth to harvest ratios over one, meaning more forest is being grown than is being harvested.²

Preserving farmland and forest also helps to protect wildlife habitats and to conserve contiguous blocks of forest and open spaces. However, farmland and forests are increasingly sold, subdivided, and developed. As much as one third of Maine's farmland will be in transition between 2010 and 2020 when the owners retire, putting 400,000 acres at risk of such conversions.³ Private land owners manage 93% of forested area in Maine.⁴ Ventures from out of state Real Estate Investment Trusts (REITs) and Timber Investment Management Organizations (TIMOs) often out-compete local owners and conservators, creating a similar threat of conversion. Fragmentation of these lands harms the environment and impinges on public access for recreation and hunting. By focusing on efforts that keep these lands locally owned and sustainably profitable, we can do more to retain our State's rural character.

Inventory of Agriculture & Forestry Resources

Agricultural Resources

Fairs and Conventions

Agricultural Fairs offer tourism and recreation as well as showcases for agriculture and forest products. Fairs occur throughout late summer and fall, offering the opportunity to attend multiple events. Nearby fairs include:

- Bangor State Fair⁵ – Bangor, ME – late July to early August
- Piscataquis Valley Fair⁶ – Dover-Foxcroft, ME – late August
- Springfield Country Fair⁷ – Springfield, ME – early September

Granges and Agricultural Societies

Granges play a unique role in Maine's rural economies. Originally founded as farmers' clubs, these organizations provided education, workshops, community programming, and other vital services. In

¹ <https://landuse.uga.edu/Documents/cocsrep.pdf> Accessed December 20, 2019.

² <https://www.mdf.org/wp-content/uploads/2019/04/MOG-FullReport2019-FNL.pdf> Accessed December 23, 2019.

³ <https://www.maine-farmland-trust.org/wp-content/uploads/2012/01/The-Guide1.pdf> Accessed December 20, 2019.

⁴ <https://www.mdf.org/wp-content/uploads/2019/04/MOG-FullReport2019-FNL.pdf> Accessed December 23, 2019.

⁵ <https://www.bangorstatefair.com/> Accessed December 23, 2019.

⁶ <http://www.piscataquisvalleyfair.com/> Accessed December 23, 2019.

⁷ <https://www.thespringfieldfair.com/> Accessed December 23, 2019.

addition to the Maine State Grange in Augusta, the Ammadamast Grange #379 is located in Enfield, Maine, just 40 minutes from Millinocket.

Food Banks and Farmers' Markets

Food insecurity is a problem across the State. In 2016, Penobscot County experienced a rate of 15.1% of households lacking adequate healthful foods, compared to 14.4% statewide.¹ The State as a whole compares poorly to New England (11.4%) and to the US average (12.3%). One way to address this need is by funding and expanding food banks. These resources provide shelf-stable food in addition to fresh produce, meats, and dairy. Local farms can find local outlets for their goods and food banks can help to ensure that no families go hungry. I Care Ministries Food Pantry is located in Millinocket and East Millinocket and the Tri Town Baptist Church also operates a food bank. Nearby services are located in Chester, Lincoln, Sherman, and Milo.

Farmers' Markets are another way for local food growers to reach local consumers. In Maine, these markets often operate from summer through harvest season. The Maine Farmland Trust found that direct-to-consumer sales such as through farmers' markets and community supported agriculture increased by 53%, totaling \$37.8 million in the State between 2012 and 2017.² While efforts to start a local market are underway, farmers and residents of Millinocket, East Millinocket, and Medway have access to markets located in Lincoln and in Dover-Foxcroft.

Farmlands

According to the USDA Census of Agriculture, Maine has lost approximately 10% of its farmlands – 573 farms – between 2012 and 2017.³ While there has been an increase in younger farmers, the average age of farm owners increased from 55.1 years in 2012 to 56.5 years in 2017. However, Maine still has a robust farming culture with 7,600 farms working roughly 1.3 million acres. Penobscot County is home to 601 farms working 105,452 acres, with an average size of 175 acres.⁴ Within the County, these farms sell a variety of products including dairy (\$28.6 million per year); vegetables (\$9.4 million); cattle and beef (\$2.9 million); grains and legumes (\$2.8 million); and fruits, nuts and berries (\$2.2 million).⁵

Millinocket, East Millinocket, and Medway are home to relatively few farms including Kelley Farm and Glidden Farm, both in Millinocket. However, the Katahdin Region offers many opportunities for the development and growth of new farm operations. Additionally, a majority of farms in Penobscot County are family run (97%), but many sell less than \$2,500 per year (39%). Programs targeting these existing operations for growth and diversification as well as succession planning may create opportunities for future expansion of small-scale operations.

Current Land Use Tax programs allow property owners to reduce their property tax burdens by committing their property to a certain use – farmlands, open spaces, forests, or working waterfronts.⁶ These programs are designed to maintain traditional rural land uses to benefit those property owners, but also residents of and visitors to those areas. In 2017, Penobscot County set aside 41,052 acres of

¹ <https://www.mdf.org/wp-content/uploads/2019/04/MOG-FullReport2019-FNL.pdf> Accessed December 23, 2019.

² <https://bangordailynews.com/2019/05/05/homestead/maine-is-losing-farms-and-farmland-but-hope-is-not-lost-for-agriculture/> Accessed December 23, 2019.

³ https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=MAINE Accessed December 23, 2019.

⁴ https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Maine/cp23019.pdf December 23, 2019.

⁵ https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Maine/cp23019.pdf Accessed December 23, 2019.

⁶ https://www.maine.gov/revenue/propertytax/propertytaxbenefits/current_use.htm Accessed December 23, 2019.

farmlands and 7,450 acres of open spaces with this program.¹ Property owners in Millinocket, East Millinocket, and Medway have not taken advantage of this program yet.

Prime Farmland is designated by the Natural Resource Conservation Service (NRCS) as having a valuable combination of soil quality, moisture supply, and growing season needed to produce economically viable crops. The three towns have several large areas meeting these criteria.² Additionally, Farmland of Statewide Significance designates those land important for crop production, pasture, forest, or other productive uses.³

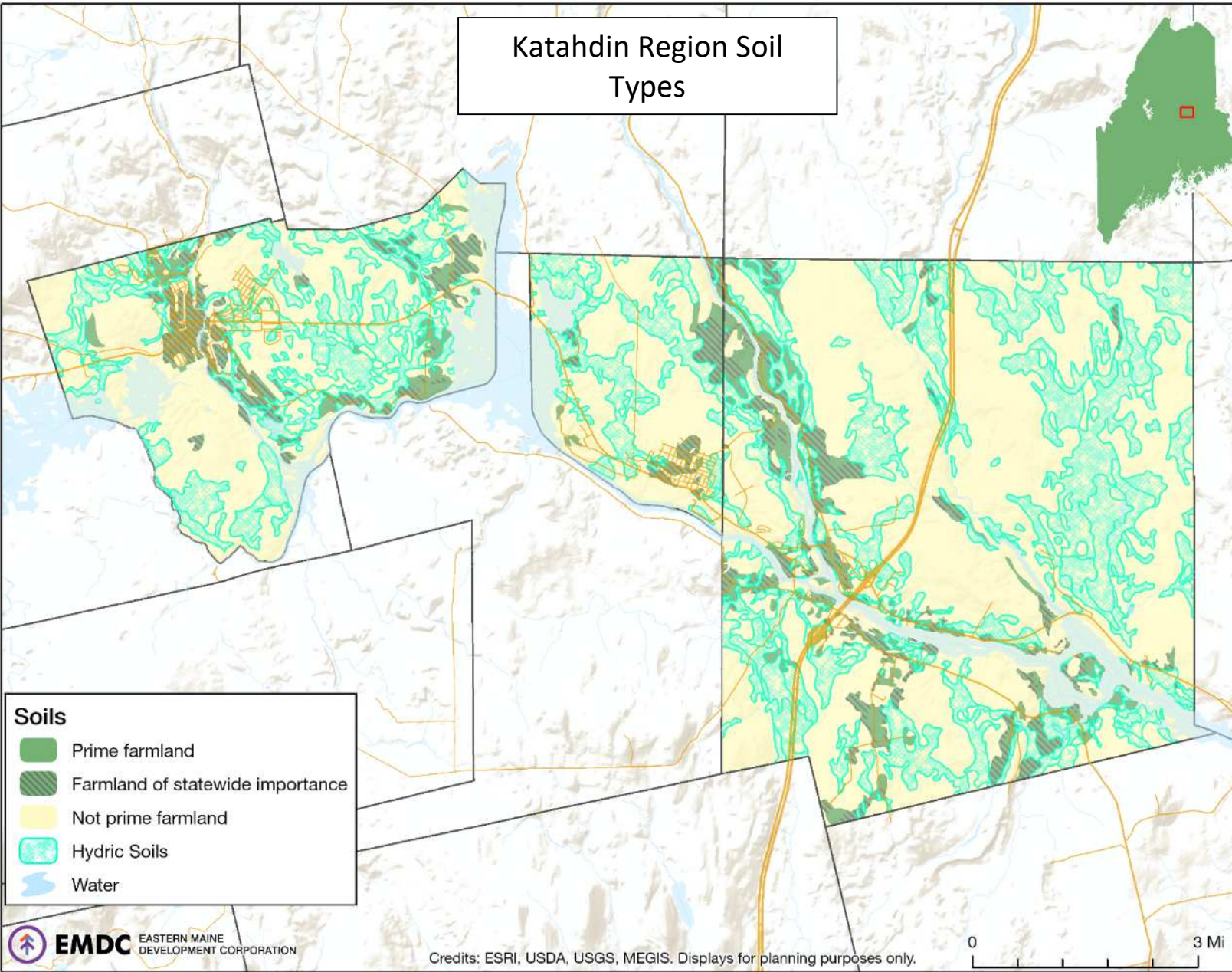
Prime Farmland and Significant Farmland (in Square Miles)				
		East Millinocket	Medway	Millinocket
Prime Farmland	Total	0.828	3.933	2.206
	%	10.5%	9.1%	12.1%
Farmland of Statewide Significance	Total	0.655	1.562	1.615
	%	8.3%	3.6%	8.9%

Source: USDA Soil Survey.

¹ <https://www.maine.gov/revenue/propertytax/municipalservices/statisticalsummary.htm> Accessed December 23, 2019.

² https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1338623.html Accessed December 23, 2019.

³ https://efotg.sc.egov.usda.gov/references/public/CR/NSSH_Part_622_Prime_Farmland_Definition.pdf Accessed December 23, 2019.



Forestry Resources

The forest economy accounted for more than 33,000 jobs and roughly \$8.5 billion in economic impact in 2016.¹ However, this figure follows a period of rapid changes in this sector: between 2010 and 2015, State exports of pulp, paper, and paperboard fell by 43%. This trend has been felt nation-wide since the early 1990s, but contributes to uncertainty in communities such as Millinocket, East Millinocket, and Medway. Efforts to assess and sustain forestry activities in the Katahdin region will likely focus on small woodlot owners, value added products, sustainable forestry practices, and co-occurring recreational access.²

Millinocket has designated several thousand acres of land as commercial forest (CF) to protect it from development incursion. East Millinocket – the smallest of the three Katahdin region towns – has designated a large portion of its area as rural (R) which separates it from commercial, industrial, or residential purposes. The Town of Medway has not adopted zoning or land use protections.

One innovative and previously underutilized forest product has quite literally arisen from the depths of the Penobscot River. Logging drives moved timber down the river, many sinking to the bottom and laying preserved for many years. In 2010, Maine Heritage Timber began harvesting these logs – between 700,000 and 1 million cords – and turning them into engineered flooring, furniture, and other products.³

Maine's current use tax laws are important tools for the preservation of woodlots and forests. This program allows owners to reduce their property tax bills by growing and harvesting lumber and other forest products. Program participants in the Katahdin Region set aside over 27,000 acres of forestland in 2017 with a valuation of \$4.4 million – well above the rate of Penobscot County as a whole. Between 2013 and 2017, the assessed value of qualifying forestlands has increased by 98% in Millinocket, by 52% in East Millinocket, and by 28% in Medway. Thus, these programs represent a significant amount of property tax savings for their individual owners and a valuable tool for the preservation of working forests in the region.

2017 Municipal Valuation Return Statistical Summary - Tree Growth							
	# of Parcels	Softwood	Mixed wood	Hardwood	Total Acres	Total Value	% of Total Land Area
		<i>in terms of acreage</i>					
Millinocket	9	366	3,794	966	5,126	\$ 809,298	50.2%
East Millinocket	1	148	1,901	710	2,758	\$ 514,795	60.7%
Medway	51	3,483	12,648	3,274	19,405	\$ 3,033,015	74.0%
Penobscot County	3,335	148,794	280,213	110,961	539,969	\$ 81,625,651	24.8%

Source: Maine Revenue Service.

Nearby forestry stewardship contractors include Towering Forest of Patten, Chad C. O'Connor of Lincoln, and London & Son of Milo.

¹ <https://www.eda.gov/pdf/201701-Maine-EDAT-final-report.pdf> Accessed December 27, 2019.

² <https://maineforest.org/wp-content/uploads/2016/09/Maines-Forest-Economy-10-12-2016.pdf> Accessed December 27, 2019.

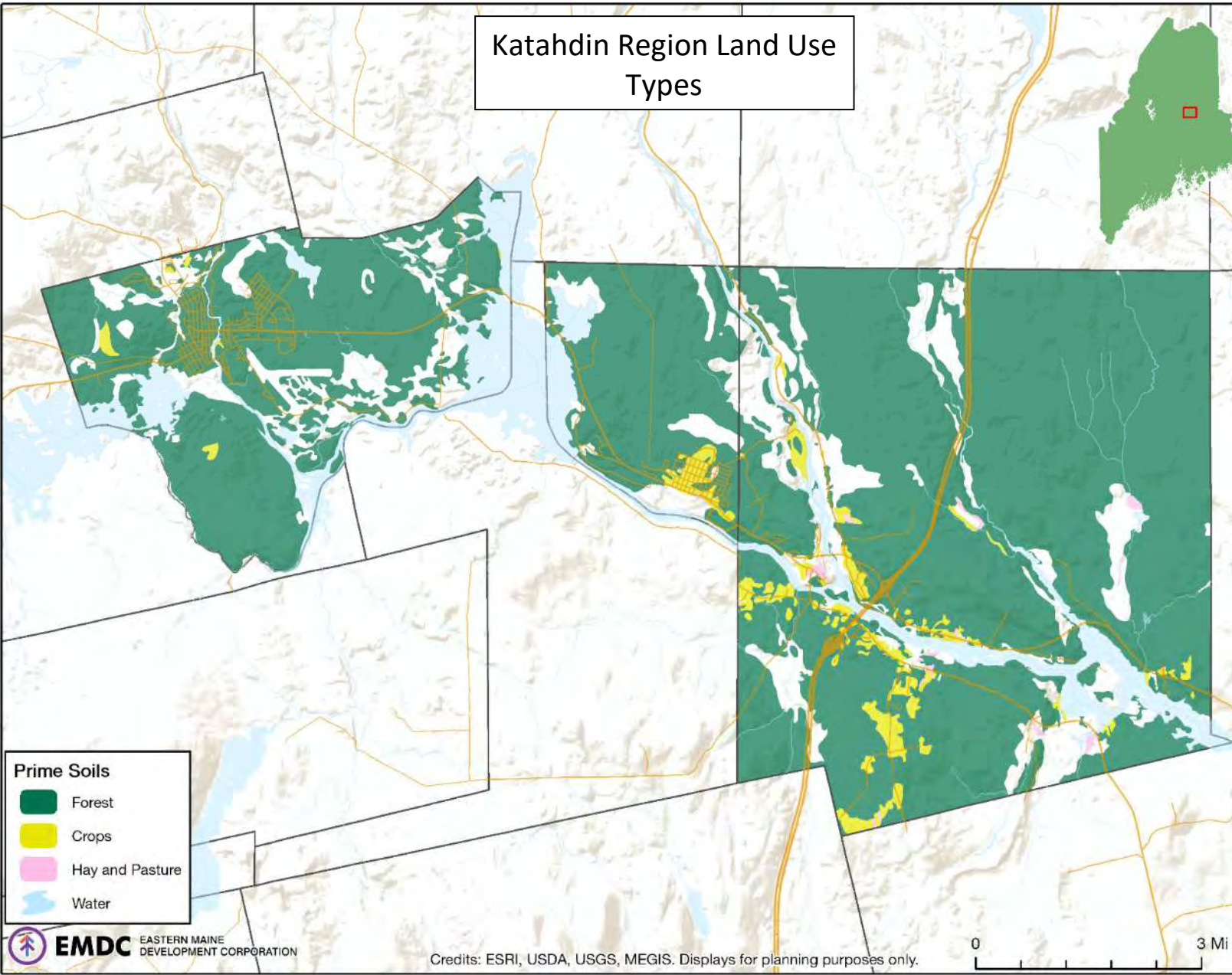
³ <https://bangordailynews.com/2013/05/24/business/millinocket-company-unearths-logging-history-for-niche-market/> Accessed December 27, 2019.

Conservation Opportunities

In addition to identifying soils ideal for farm production, the USDA also identifies soils appropriate for the commercial growth of forests and for pasture and hay production. Nearly three-quarters of all Katahdin region land area is valuable for forest growth, while a further 10.0% of total land area is valuable for croplands. Coupling these activities with conservation easements is a useful way to both preserve the rural characteristics of the region and take advantage of the current-use tax program.

Katahdin Region Timber Harvest Data 1991-2018						
YEAR	Selection harvest, acres	Shelterwood harvest, acres	Clearcut harvest, acres	Total Harvest, acres	Change of land use, acres	Number of active Notifications
1991	299	187	0	486	0	3
1992-1993	968	0	1	969	1	5
1994	510	295	35	840	30	6
1995	312	50	7	369	7	7
1996	539	25	44	608	44	8
1997	125	0	35	160	35	4
1998	57	0	6	63	6	4
1999	454	374	283	1111	6	22
2000	446	747	218	1411	33	21
2001	62	360	24	446	23	14
2002	372	841	36	1176	37	11
2003	334	2017	38	2389	16	14
2004	342	2039	0	2381	15	19
2005	471	979	0	1450	7	19
2006	291	814	0	1105	31	23
2007	535	807	0	1342	0	14
2008	434	2192	0	2626	24	25
2009	118	704	0	822	101	23
2010	420	493	0	913	0	17
2011	539	1367	0	1906	0	25
2012	443	751	0	1194	2	32
2013	182	1974	0	2156	4.5	29
2014	39.5	1325	0	1364.5	0	21
2015	271.5	911	0	1182.5	0	20
2016	220	23	0	243	0	13
2017	96.9	285	0	381.9	7	14
2018	416	680	0	1096	0	13
Total	9296.9	20240	727	30190.9	429.5	426
Average	344	750	27	1118	16	16

Source: Maine Department of Agriculture, Conservation and Forestry



Threats & Protective Measures

The Growth Management Act requires that municipalities “ensure the protection of agricultural and forest resources. Each municipality or multi-municipal region should discourage new development that is incompatible with uses related to the agricultural and forest industries” (See MRSA Title 30-A, §4312.3.H; §4326.1.E; and §4326.3-A.F). The Millinocket, East Millinocket, and Medway region is experiencing little direct pressure on forested or agricultural lands in the form of housing and industrial development. This trend, coupled with an emphasis on the region’s proximity to the Katahdin Woods and Waters National Monument and Baxter State Park, suggest that sustainable forestry practices can strengthen these towns through complimentary recreation uses. Public ownership and *access*, however, will remain an ongoing condition of sustainability and viability in these working landscapes in the 21st century.

Zoning and Land Use Ordinances

The State mandates sustainable forestry practices within shoreline areas (See the Mandatory Shoreland Zoning Act in Chapter 4). Many of these practices pertain to timber clearing limitations, harvesting practices, and erosion and sedimentation control. Some states and municipalities have adopted other zoning practices to protect agricultural and forestry activities.¹

Millinocket has adopted the Commercial Forestland Zone (CF) [Added 4-13-1995 by Ord. No. 1-95] to safeguard the town’s commercial forestland registered under the Tree Growth Tax Law. East Millinocket has a designated Rural Zone for similar purposes.

Forest Practices Act

The Maine Forest Practices Act sets standards for forest regrowth, performance standards for logging operations, establishes separation zones between clear cuts, and requires forest management plans for clear cuts over twenty acres. Additionally, the act protects forestlands land by allowing tax incentives to landowners who meet specific criteria.

Sustainable Forestry Initiatives

The Forest Practices Act (Ch. 23) aims to eliminate liquidation harvesting. This occurs where a timberland is purchased, harvested, and subsequently resold within five years of its original purchase.² This law requires forestry practices to adhere to long-term management principles that are ecologically and environmentally responsible, socially beneficial, and economically viable. These programs are voluntary and offer new markets and future viability for small woodlot owners as well as training and information services. In 2018, Maine certified 7,214,648 acres through the Sustainable Forestry Initiative, 4,864,869 acres through the Forest Stewardship Council, and 503,003 acres through the American Tree Farm System.³

Current Use Tax Laws

Maine has four current use programs which offer a property owner a reduction in assessed land value for qualifying uses: farmland, open spaces, tree growth, and working waterfronts. The program values

¹ https://www.maine.gov/dacf/mfs/publications/rules_and_regs/chap_21_rules_effective_01012016.pdf Accessed December 27, 2019.

² https://www.maine.gov/dacf/mfs/publications/rules_and_regs/chap_23_rules.pdf Accessed December 27, 2019.

³ <https://maineforest.org/wp-content/uploads/2019/02/Understanding-public-access-to-working-forests.pdf> Accessed December 27, 2019.

property at its current use, rather than at its market value, thus reducing the pressures of conversion to housing or other development.

Agricultural Protection Act

Maine's Agricultural Protection Act (MRSA Title 7, Ch. 6), the "Right-to-Farm Law," protects farmers from complaints filed by neighbors for things like odors, noises, or other nuisances that are typically associated with legitimate farming operations. The act establishes a Farm Agriculture Resource Management and Sustainability designation process, recognizing leaders who develop and implement best management practices. Finally, the act developed a pilot program for establishing agricultural districts and enhancement groups to aid farmers and farm operations.

Farmland Registration Program

The Farmland Registration Program is designed to protect the right of farmers to farm their land. Upon registration, a farmer is guaranteed a 50-foot buffer zone between the productive fields and new incompatible land uses such as residential development. This program includes working tracts of land as small as five acres with a variety of crops or livestock, but does not include woodlots, buildings, roads, or lawns.¹ Another program – the Voluntary Municipal Farm Support Program (MRS 7 Ch. 2-C) – allows municipalities to enter into "farm support arrangements" with farm owners by granting a 20-year conservation easement in exchange for property tax abatements.

¹ https://www.maine.gov/dacf/ard/farmland_protection/farmland_registration.shtml Accessed December 27, 2019.

Notable Parties

Agricultural Commissions

Future Farmers of America and 4-H

Maine Farmland Trust

Forest Society of Maine

Maine Tree Foundation

Maine Logger Education Alliance

Maine Woodland Owners

Natural Resources Council of Maine

Woodland Steward Program

Trust to Conserve Northeast Forestlands

Maine Association of Conservation Commissions

(See Chapter Four Water Resources for description.)

Maine Inland Fisheries & Wildlife

(See Chapter Four Water Resources for description.)

Maine Department of Environmental Protection

(See Chapter Four: Water Resources for description.)

Strategies & Policies

In order to protect, promote, and preserve the quality of Maine's notable farmlands and forests, local policies and implementation strategies have been developed in addition to the following state policies and strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To safeguard lands identified as prime farmland or capable of supporting commercial forestry.
2. To support farming and forestry and encourage their economic viability

Strategies:

Minimum strategies to meet state goals:

1. Consult with the Maine Forestry Service district forester when developing any land use regulations pertaining to forest management practices as required by 12 M.R.S.A. §8869.
2. Consult with Soil and Water Conservation District staff when developing any land use regulations pertaining to agricultural management practices.
3. Require commercial or subdivision developments in critical rural areas. Amend land use ordinances, if necessary. Maintain areas with prime farmland soils as open space to the greatest extent practicable.
4. Limit non-residential development in critical rural areas (if the town designates critical rural areas) to natural resource-based businesses and services, nature tourism/ outdoor recreation businesses, farmers' markets, and home occupations.
5. Encourage owners of productive farm and forest land to enroll in the current use taxation programs.
6. Permit land use activities that support productive agriculture and forestry operations, such as roadside stands, greenhouses, firewood operations, sawmills, log buying yards, and pick-your-own operations.
7. Include in local or regional economic development plans any agriculture and commercial forestry operations as well as land conservation initiatives that support them.

Time Frame: Ongoing

Responsible Agent(s): Maine Department of Agriculture, Conservation and Forestry, Maine Forestry Service, East Millinocket, Millinocket, and Medway.

Local

Millinocket

- 1. Policy:** To work within the Forest Opportunity Roadmap initiative to identify opportunities that fit best within Millinocket or the Region.
Strategies: For/Maine Roadmap
Time Frame: Ongoing
Responsible Agent(s): Katahdin Region Development Board, Town Council, Landowners, Maine Development Foundation and For/Maine, other groups and agencies in the State of Maine.
- 2. Policy:** To support the goals outlined in the Katahdin Gazetteer process that improve the entrepreneurial conditions in the area.
Strategies: Katahdin Gazetteer
Time Frame: Ongoing
Responsible Agent(s): Our Katahdin, Katahdin Collaborative
- 3. Policy:** To support existing forest-related business efforts in the region including advanced wood heat, wood products manufacturing, forestry, logging and trucking, outdoor recreation and other related businesses.
Strategies: Redevelopment Plan for One Katahdin
Time Frame: Ongoing
Responsible Agent(s): Our Katahdin
- 4. Policy:** To increase the viability of businesses catering to outdoor recreation and enhance the visitor experience in the Katahdin Region.
Strategies: RCDI Working Group, Katahdin Region Visioning Group/Vision, State of Maine Community Destination Academy
Time Frame: Ongoing
Responsible Agent(s): Katahdin Area Trails, Outdoor Sport Institute, Northern Forest Center, Friends of Katahdin Woods and Waters, Katahdin Chamber of Commerce, Maine Office of Tourism.

East Millinocket

- 1. Policy:** To work within the Forest Opportunity Roadmap initiative to identify opportunities that fit best within East Millinocket or the Region.
Strategies: For/Maine Roadmap
Time Frame: Ongoing
Responsible Agent(s): Katahdin Region Development Board, Board of Selectmen, Landowners, Maine Development Foundation and For/Maine, other groups and agencies in the State of Maine.
- 2. Policy:** To work with local groups working to collaborate with landowners to create a regional, interconnected, multi-use trail in the Katahdin region.
Strategies: Katahdin Region Visioning Group/Vision
Time Frame: Ongoing

Responsible Agent(s): Landowners, Northern Timber Cruisers, East Branch SnoRovers & ATV, other State agencies.

Medway

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):

Chapter Seven:

POPULATION & DEMOGRAPHICS

Goals/Vision

State Goal

None required.

Local Goals

Millinocket

To maintain a healthy and vibrant town that meets the needs, as best as possible, of residents and visitors of the Town of Millinocket. To guide future development and redevelopment of the community in a manner consistent with the goals and objectives of the community. To pursue companies that will entice former area residents to return to Millinocket and prevent out-migration. By 2023, to reduce the median age of 51.3 (2016) to approach State and national averages (44.0 and 37.7, respectively).

East Millinocket

To create a steady population change rate by increasing efforts to attract younger, higher educated families, all while continuing to provide the much needed services to assist the town's older populations. To be considerate of diversification of the population base by including all ages, races, and cultural heritage. To seek new or expanded job opportunities to entice employment and people back to the town to work and live. To create a high quality of living that will attract new residents.

Medway

To provide needed infrastructure and technology that will attract and retain business and youth alike. To provide a venue for recreation and housing for all population age groups while continuing to maintain the unique characteristics of a family community.

Introduction

An important factor in the Katahdin region's future is each town's population, how those people came to live where they live, and how those populations may change in the future. The ultimate goal of this plan is to ensure a sustainable and equitable balance between the health of future populations, the vitality of local and regional economies, and the integrity of the surrounding environment. Accordingly, most phases of this plan are either dependent upon – or strongly influenced by – trends in the size and composition of the region's population.

A demographic profile is constructed from historic and current data collected by the US Census, state economic and human services programs, and local tax and survey initiatives. Projecting and predicting *future* population, however, is difficult in any community. In the Katahdin region, this process is complicated by the economic contexts of the three towns and reliance on the paper, pulp, and forest industry. Millinocket, East Millinocket, and Medway all experienced a rapid influx of French, Italian, Anglo, and other ethnic groups who moved to the area to work in the mills during the 19th and early

20th centuries. This prosperity led to generations who were born, lived, and worked in their hometowns. The national decline in the paper and pulp industry and the closure of the mills in the region – and across the state – has derailed a century of stable growth and prosperity.

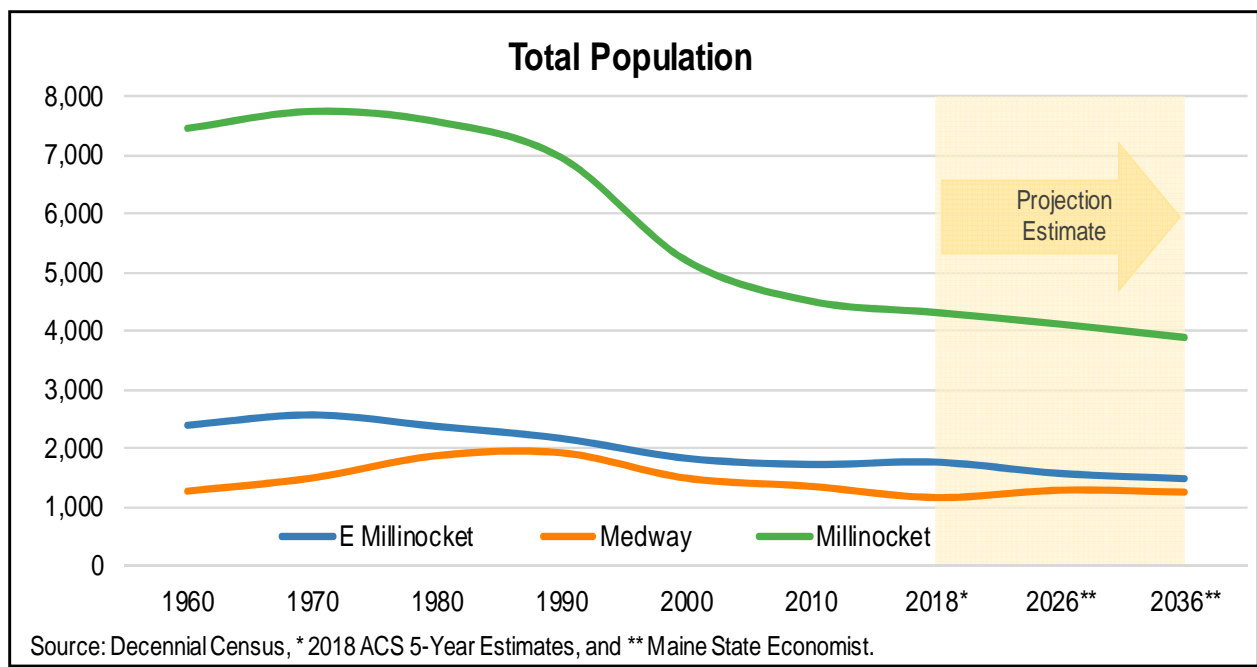
Because of the loss of these economic cornerstones in Millinocket and East Millinocket, the region has experienced a period of population loss. Local opinion has long stressed – and census data substantiates – that the region has also been exporting young people. For the remaining population, decreasing birth rates mirror state trends and compound this problem further. The total effect for the Katahdin region has been a downward trend in total population with continuing anticipated declines into the future. This has broad implications on municipal services, tax revenues, and economic structures. However, there are opportunities to slow or reverse this trend. The Katahdin region is currently experiencing a swell in tourism and recreation, attracting new and returning prior residents. Attention to rural economies has led to the revival of some industries and the creation of others with knock-on effects in population stability. The effects of this shift in economic priority have yet to reverse demographic forecasts, but the communities of Millinocket, East Millinocket, and Medway remain optimistic about the depth and rapidity of this ongoing renewal.

Demographic Inventory

Historic and Future Trends

Between 1960 and 2018, Millinocket experienced a 42% *decrease* in population, East Millinocket a 26% decrease, and Medway a 9% decrease. This dramatic change can be associated with changes in the pulp and paper industry, described by a globalized push towards automation replacing jobs and contributing to uncertainty during these last four decades. The Maine State Economist predicts that the Katahdin region will continue to see further declines in population. From 2018 to 2036, Millinocket is expected to decrease in population by a further 9.9%. Similar changes are expected in East Millinocket – a 16% decrease – and in Medway – a 7.9% decrease. **Overall, the Katahdin region will likely experience a 44% decrease in population between 1970 and 2036 – from a regional high of 11,800 to an expected low of 6,618.** This compares to a 21% projected *increase* at the county level and a 35% projected increase at the state level over the same period.

Total Population and Projected Population: 1960 - 2036.										
	Maine		Penobscot Cty		E Millinocket		Medway		Millinocket	
	Total	%	Total	%	Total	%	Total	%	Total	%
1960	969,265	x	126,346	x	2,392	x	1,266	x	7,453	x
1970	993,722	+2.5%	125,393	-0.8%	2,567	+7.3%	1,491	+17.8%	7,742	+3.9%
1980	1,125,043	+13.2%	137,015	+9.3%	2,372	-7.6%	1,871	+25.5%	7,567	-2.3%
1990	1,227,928	+9.1%	146,601	+7.0%	2,166	-8.7%	1,922	+2.7%	6,956	-8.1%
2000	1,274,923	+3.8%	144,919	-1.1%	1,828	-15.6%	1,489	-22.5%	5,203	-25.2%
2010	1,328,361	+4.2%	153,923	+6.2%	1,723	-5.7%	1,349	-9.4%	4,506	-13.4%
2018*	1,332,813	+0.3%	151,748	-1.4%	1,762	+2.3%	1,158	-14.2%	4,314	-4.3%
2021**	1,335,260	+0.2%	151,927	+0.1%	1,608	-8.7%	1,296	+11.9%	4,211	-2.4%
2026**	1,340,463	+0.4%	152,294	+0.2%	1,569	-2.4%	1,284	-0.9%	4,115	-2.3%
2031**	1,341,046	+0.0%	152,132	-0.1%	1,526	-2.7%	1,268	-1.2%	4,004	-2.7%
2036**	1,337,568	-0.3%	151,749	-0.3%	1,480	-3.0%	1,250	-1.4%	3,888	-2.9%
Source: Decennial Census, * 2018 ACS 5-Year Estimates, and ** Maine State Economist.										



The effects of a dramatic population decline are numerous:

- Demand for housing will decrease, leading to building vacancy and abandonment, decreasing demand and prices, and deteriorating neighborhood contiguity;
- The decrease in housing demand will affect retirement plans and wellness among older residents;
- The property tax base will continue to shrink;
- Overbuilt infrastructure will need to be managed in order to maximize efficiency, or dismantled to reduce costs;
- Decreased school enrollment will necessitate consolidation of facilities and programming.

The implications of this regional decline have started conversations about combining municipal and educational services. This is not new: East Millinocket and Medway have combined school services and all three towns have combined recreational facilities and centers to facilitate other regional services. In December 2020, Millinocket contracted their police services to East Millinocket Police Department, who also serves East Millinocket and Medway.

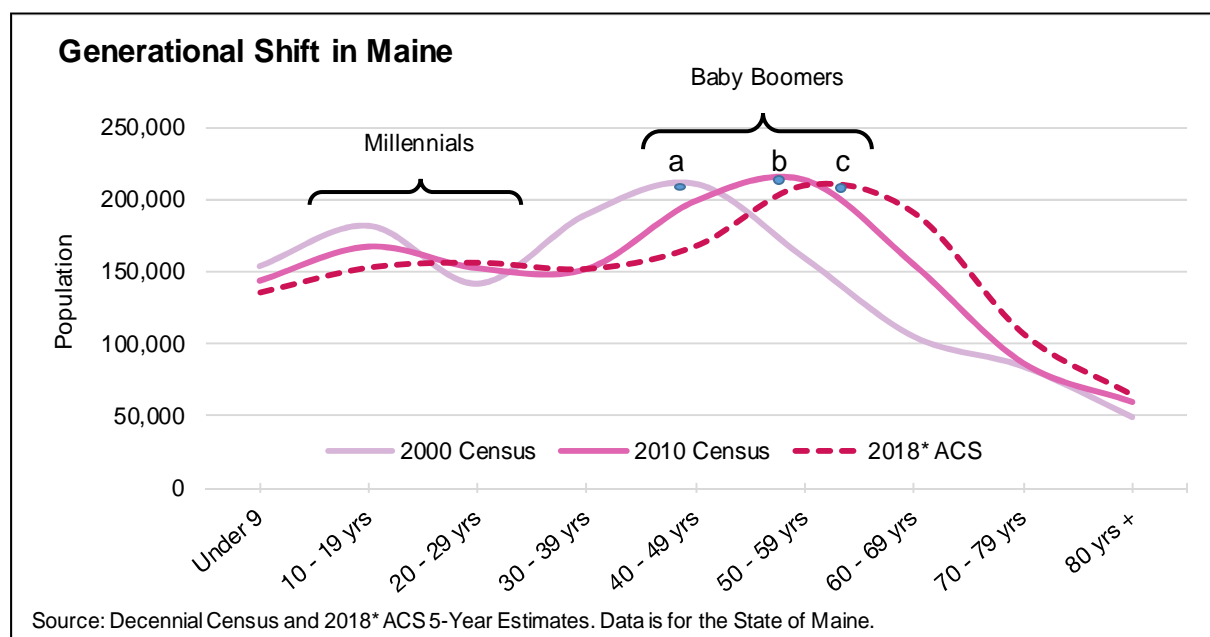
However, not all impacts from declining populations are negative. Reduced competition in job markets generally lowers unemployment levels. Fewer demands on local resources and services can reduce municipal expenditures and living costs. For example, the Cost of Living Index – an estimation of the relative prices for consumer goods and services – is 5.1 points lower in the Millinocket Economic Summary Area (ESA) than in the state overall.¹ Finally, quality of life can improve through lower traffic, reduced air and water pollution, and increased reforestation. Managing the results of a declining population will require deliberate action to lessen the negative effects and assert the positive.

¹ JobsEQ, based on 2019 third quarter data. Millinocket ESA has a COLI of 106.0, the State of Maine 111.1, and the entire country a baseline of 100.0.

Distribution by Age and Sex

Generation shifts can have lasting effects on a population's demographic makeup. Those born during the Baby Boom – between 1946 and 1964 – represent one of America's largest age cohorts, approximately 78.8 million people.¹ The number of births during this period peaked at over 4 million per year, a level not exceeded until 1989 when Baby Boomers began having children of their own. This Baby Boom “echo” – often called Millennials and numbering roughly 74.1 million – is expected to overtake Baby Boomers as the largest population cohort in 2020.² By comparison, Generation X, those aged between the Baby Boomer and Millennial cohorts, number 65.8 million. The generation following the Millennials – Gen Z – are generally identified as those born after the year 2000 and is still growing.

By plotting total population and age, a generational cohort like the Baby Boom can be shown quite clearly using census data, as in the chart below. If a population remains in place – balanced by in- and out-migration – that cohort peak proceeds relatively unchanged from year to year, as shown from points a, b, and c in years 2000, 2010, and 2018*, respectively. However, note that the Baby Boom Echo – the Millennial generation – shows a clear peak in the 2000 Census becoming flatter and flatter as **young people leave Maine**. This emigration of young people shows up in reduced income tax revenues, birth rates, and school enrollment.



In the Katahdin region the emigration of young people is pronounced and irregular. In 2000, those between the ages of 0 to 9 years old totaled to 838 in the region. By 2018, this age bracket decreased 62.4% regionally – declining 31.2% in Millinocket, 111% in East Millinocket, and 177% in Medway. The next older age bracket in 2000, those between the ages of 10 and 19, totaled to 1,240. Still, this cohort declined a further 35.8% regionally, 33% in Millinocket, 14% in East Millinocket, and 87% in Medway. In total, the three towns have approximately 649 fewer people between the ages of 20 and 39 than the 2000 Census would have predicted given stable population growth.

¹ <https://www.census.gov/prod/2014pubs/p25-1141.pdf> Accessed January 3, 2020.

² <https://www.pewresearch.org/fact-tank/2018/03/01/millennials-overtake-baby-boomers/> Accessed January 3, 2020.

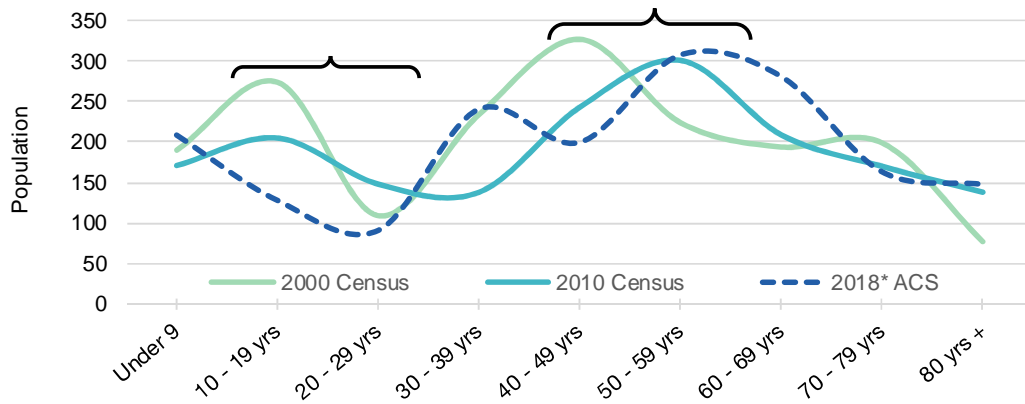
Estimated Generational Procession between 2000 and 2018*.										
	Maine		Penobscot Cty		E Millinocket		Medway		Millinocket	
	Change	% -	Change	% -	Change	% -	Change	% -	Change	% -
Under 9	x	x	x	x	x	x	x	x	x	x
10 - 19 yrs	+8,789	+5.8%	+2,292	+12.3%	-44	-34.6%	+38	+22.5%	-57	-20.1%
20 - 29 yrs	+2,222	+1.4%	+5,031	+23.0%	-100	-111.1%	-108	-177.0%	-114	-31.2%
30 - 39 yrs	-30,187	-19.9%	-4,747	-28.1%	-34	-14.2%	-114	-87.0%	-179	-33.0%
40 - 49 yrs	+26,015	+15.5%	-435	-2.3%	+90	+45.2%	+86	+42.0%	+167	+31.5%
50 - 59 yrs	+19,964	+9.5%	+1,803	+7.9%	+73	+23.8%	-32	-17.0%	+147	+20.0%
60 - 69 yrs	-20,430	-10.7%	-3,771	-19.0%	-46	-16.4%	-79	-34.1%	-345	-54.1%
70 - 79 yrs	-52,776	-49.6%	-6,304	-57.8%	-61	-37.4%	-126	-190.9%	-153	-25.9%
80 yrs +	-41,179	-64.7%	-4,785	-70.2%	-47	-32.0%	-98	-233.3%	-222	-60.7%

Source: Decennial Census and 2018* ACS 5-Year Estimates.

Source: Decennial Census and 2018* ACS 5-Year Estimates.

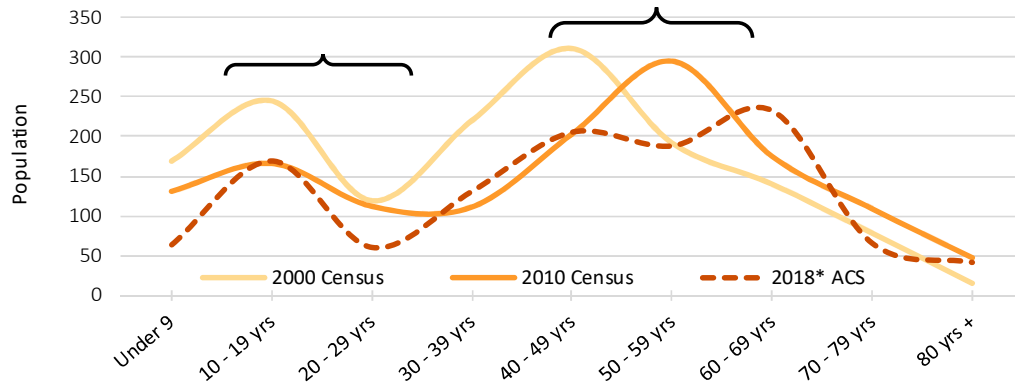
Further analyzing the population by gender shows a relative balance between males and females at the state and county level, with less consistency at the local and regional level. Note that the American Community Survey sampling technique reduces the accuracy where populations are smaller, necessitating larger bins to reduce the margin of error. Again, these population pyramids show a clear generational procession as people age in place, or as they migrate out of the area.

Generational Shift in East Millinocket



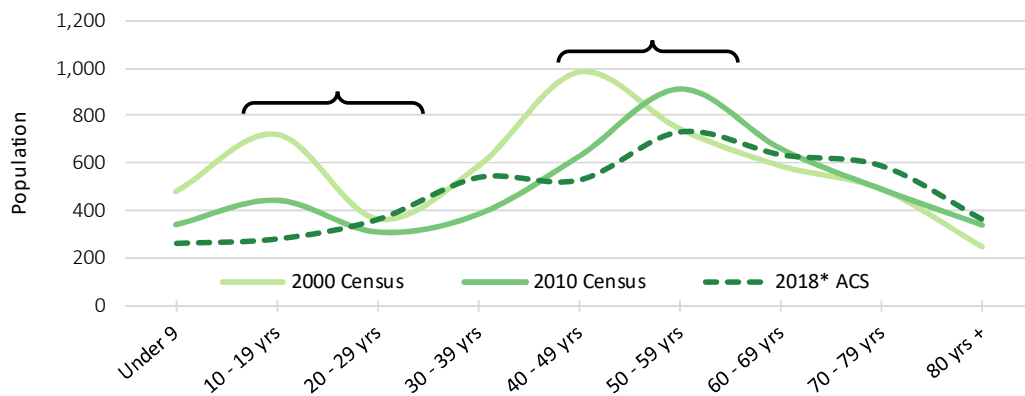
Source: Decennial Census and 2018* ACS 5-Year Estimates.

Generational Shift in Medway

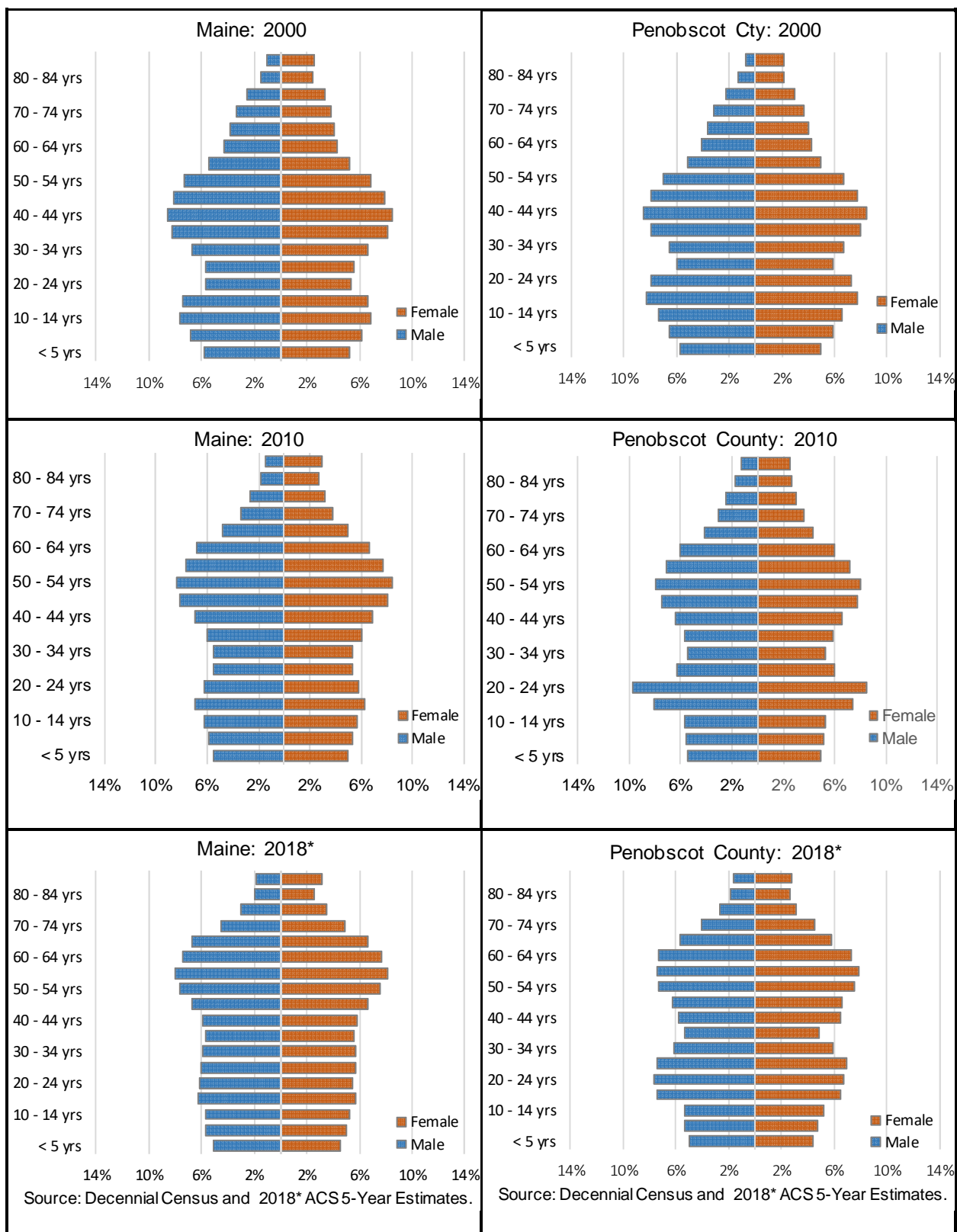


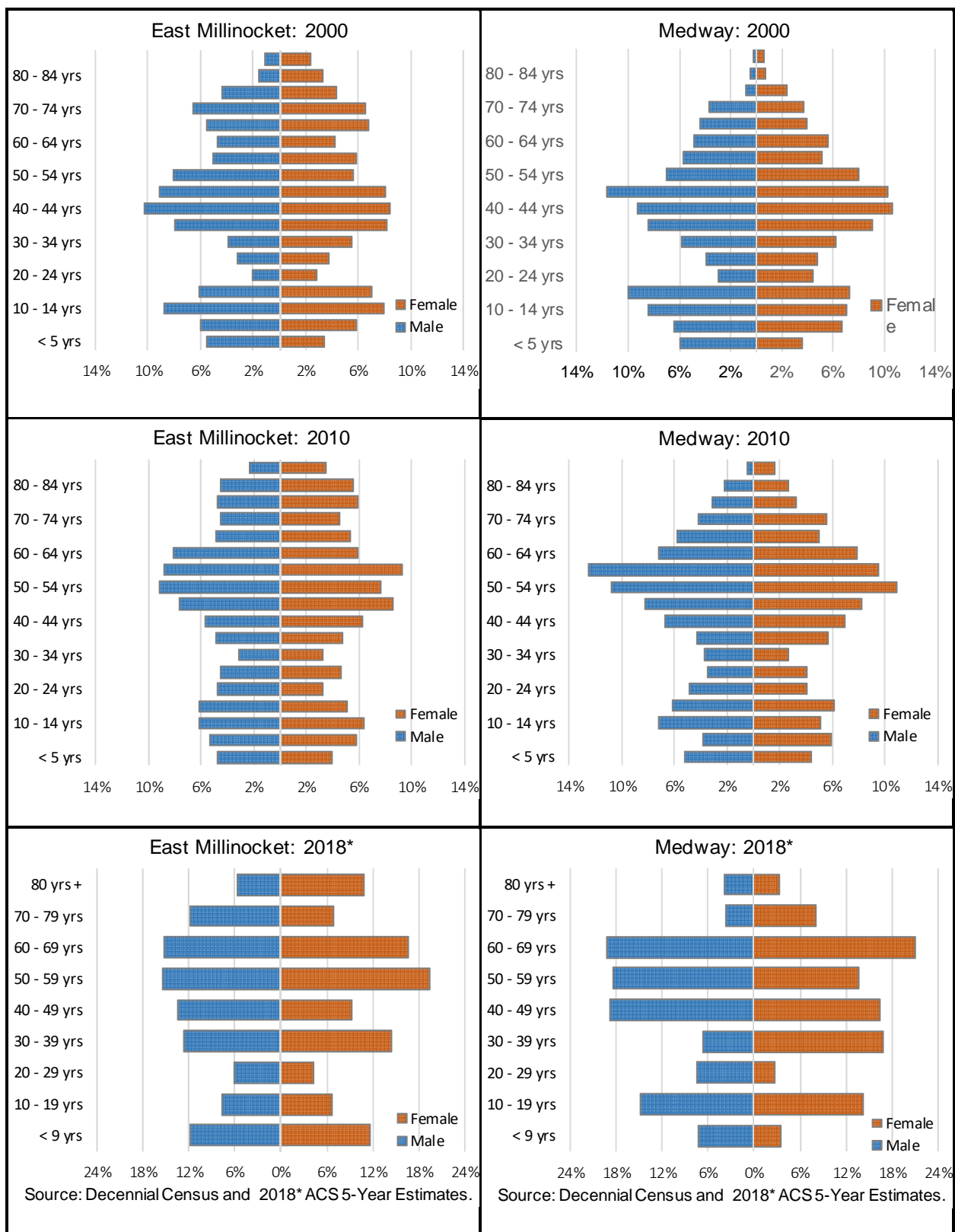
Source: Decennial Census and 2018* ACS 5-Year Estimates.

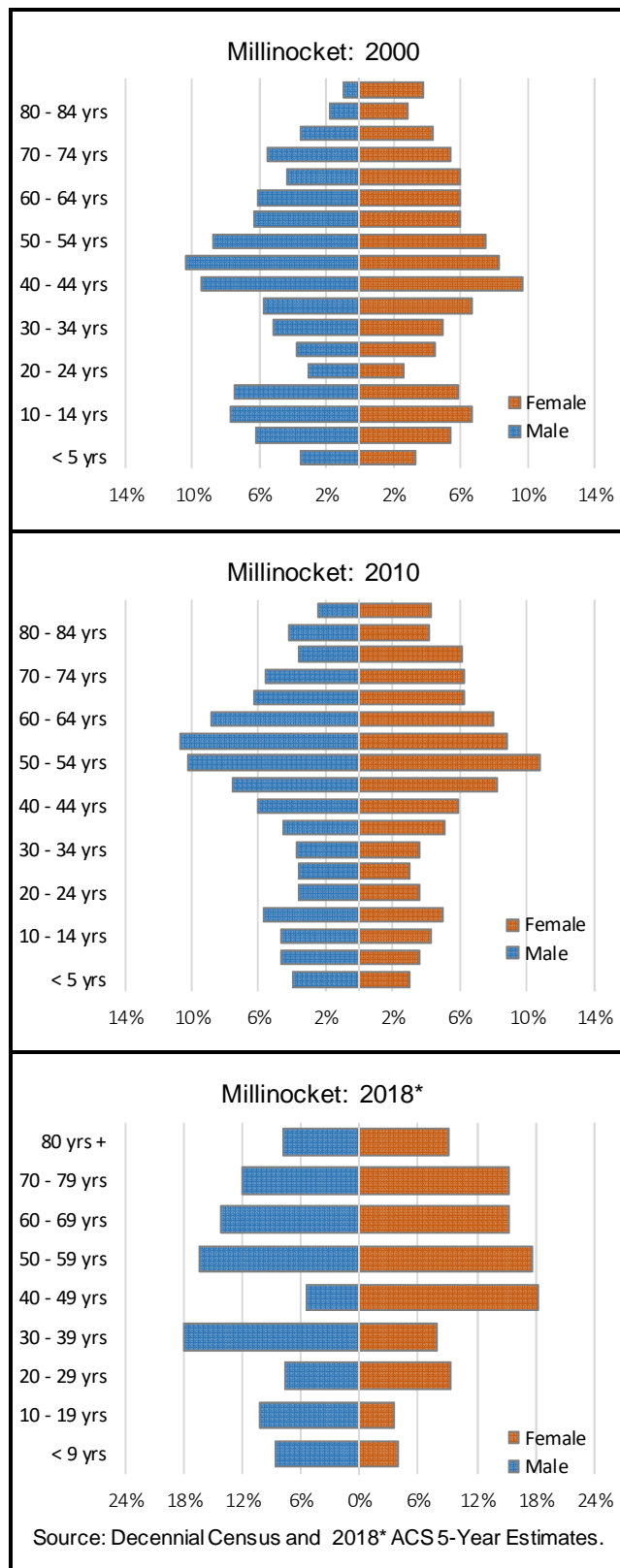
Generational Shift in Millinocket



Source: Decennial Census and 2018* ACS 5-Year Estimates.







Births, Deaths, and Immigration

Another element to Maine’s demographic slowdown is that, in addition to being one of the “oldest” states – with proportionately more people over the age of 65, **Maine is also one of the least fertile**

states. Total Fertility Rates (TFR) measure the average number of children born to a woman in her lifetime. Nationally, the 2017 TFR was 1.766, 16% lower than what is considered to be a replacement-level rate of 2.100. While only two states have TFRs above 2.1 – Utah and South Dakota – New England and Maine are among the lowest.

Total Fertility Rates: 2017				
	All	White	Black	Hispanic
United States	1.766	1.667	1.825	2.007
Maine	1.581	1.545	4.004	1.282
New Hampshire	1.515	1.511	2.03	1.687
Vermont	1.52	1.534	2.392	1.201
Rhode Island	1.509	1.343	1.594	2.048
Massachusetts	1.506	1.363	1.891	2.021
Connecticut	1.592	1.476	1.576	1.936

Source: CDC National Vital Statistics Report, 2017

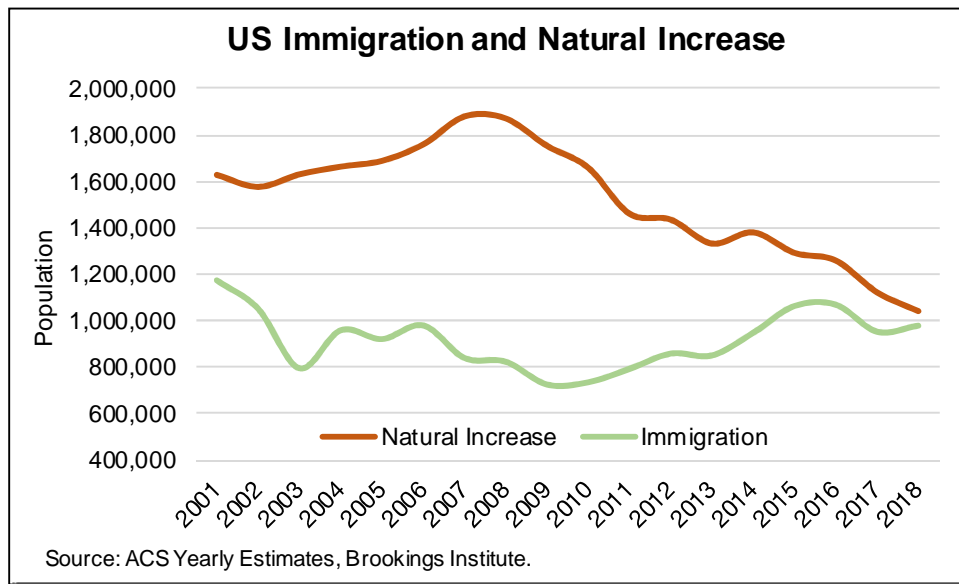
Natural increase in population is the difference between births and deaths every year. In the US, this rate has recently plummeted to the lowest rates since 1937 at the height of the Great Depression.² This decline in natural population growth is the result of fewer babies being born as well as more deaths as the nation's population ages. Natural growth is complemented by immigration. National immigration levels have fluctuated wildly in our history, but have remained relatively stable since the 1990s. The Katahdin region has experienced both a decrease in population growth and an increase in out-migration, though it is not unique among rural communities in this measure.

¹ https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_01-508.pdf Accessed January 3, 2020.

² <https://www.brookings.edu/blog/the-avenue/2018/12/21/us-population-growth-hits-80-year-low-capping-off-a-year-of-demographic-stagnation/> Accessed January 9, 2020.

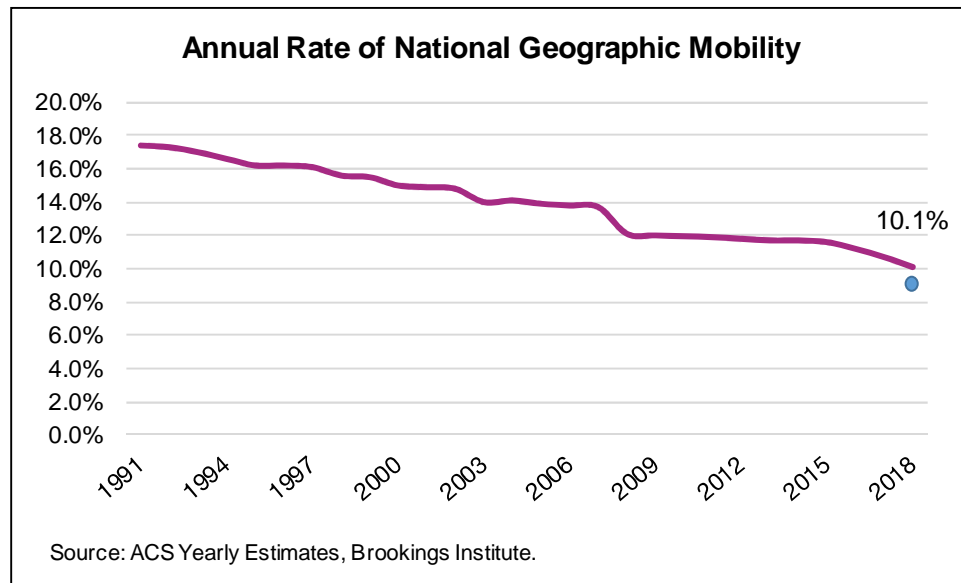
Births and Deaths per Year															
	Maine			Penobscot Cty			E Millinocket			Medway			Millinocket		
	Births	Deaths	Change	Births	Deaths	Change	Births	Deaths	Change	Births	Deaths	Change	Births	Deaths	Change
2002	13,549	12,670	+879	1,501	1,390	+111	19	20	-1	15	11	+4	28	65	-37
2003	13,852	12,530	+1,322	1,578	1,340	+238	14	18	-4	18	9	+9	36	88	-52
2004	13,932	12,441	+1,491	1,557	1,392	+165	15	33	-18	9	14	-5	36	86	-50
2005	14,111	12,858	+1,253	1,654	1,452	+202	14	31	-17	10	17	-7	40	78	-38
2006	14,152	12,282	+1,870	1,588	1,369	+219	13	21	-8	18	14	+4	37	69	-32
2007	14,110	12,474	+1,636	1,652	1,327	+325	17	24	-7	16	11	+5	36	67	-31
2008	13,593	12,503	+1,090	1,544	1,437	+107	12	21	-9	7	7	+	37	77	-40
2009	13,466	12,480	+986	1,575	1,393	+182	11	17	-6	12	16	-4	27	60	-33
2010	12,951	12,655	+296	1,514	1,395	+119	18	15	+3	12	16	-4	33	57	-24
2011	12,698	12,995	-297	1,449	1,460	-11	10	31	-21	13	19	-6	36	71	-35
2012	12,692	12,878	-186	1,454	1,522	-68	12	23	-11	11	12	-1	32	87	-55
2013	12,767	13,543	-776	1,476	1,552	-76	12	16	-4	8	20	-12	27	61	-34
2014	12,678	13,511	-833	1,421	1,472	-51	10	24	-14	6	15	-9	31	64	-33
2015	12,588	14,475	-1,887	1,424	1,649	-225	13	26	-13	7	20	-13	28	71	-43
2016	12,695	14,176	-1,481	1,482	1,658	-176	15	28	-13	7	17	-10	28	85	-57
2017	12,290	14,675	-2,385	1,430	1,640	-210	10	16	-6	11	9	+2	23	64	-41
2018	12,299	14,700	-2,401	1,378	1,739	-361	9	38	-29	4	18	-14	33	85	-52

Source: Maine Office of Data, Research, and Vital Statistics



Geographic mobility is a measure of how frequently people move from place to place. Research suggests that our nation has become less and less mobile since the 1990s, reaching a national rate of 10.1% of individuals having moved in the last year by 2018. In Maine, Penobscot County, and East Millinocket, the population is more mobile than the national average, while Medway and Millinocket

are both significantly lower. As a state, Maine saw an increase from immigration of 3,960 people in 2018 (0.3% of the total population), compared to the Katahdin region with approximately 10 individuals.



Moved in the last year: 2018*							
	Total	Within same county	From different county, same state	From different state	From abroad	Didn't Move	Annual Mobility
Maine	1,320,166	7.6%	3.0%	2.6%	0.3%	86.5%	13.5%
Median Age		29.40	27.70	30.30	28.20	45.00	
Penobscot Cty	150,354	9.2%	3.5%	2.7%	0.2%	84.4%	15.6%
Median Age		27.50	22.20	25.80	30.40	42.40	
East Millinocket	1,754	12.9%	0.5%	4.8%	0.6%	81.2%	18.8%
Median Age		38.10	x	36.70	32.10	50.90	
Medway	1,158	2.8%	0%	0%	0%	97.2%	2.8%
Median Age		47.80	x	x	x	49.00	
Millinocket	4,314	6.0%	0.4%	1.5%	0%	92.1%	7.9%
Median Age		27.50	x	62.10	x	54.30	

Source: 2018* ACS 5-Year Estimates.

Race and Ethnicity

Maine is demographically the whitest state in the nation (93.4% white), with New England neighbors New Hampshire (90.3%), and Vermont (92.8%) close behind as of 2017.¹ According to CDC data, black women in Maine have more than twice as many children as white women.² This relationship bears out across most of New England; however, it is most striking in Maine. This is a compelling figure in light of publicity surrounding immigrants and asylum seekers and may suggest how the state demographic profile is changing. Regionally, populations are less diverse than state or county averages.

Racial and Hispanic Origins						
	Maine			Penobscot Cty		
	2000	2010	2018*	2000	2010	2018*
RACE						
Total population	1,274,923	1,328,361	1,332,813	144,919	153,923	151,748
White	96.9%	95.2%	94.5%	96.6%	95.4%	94.8%
Black or African American	0.5%	1.2%	1.3%	0.5%	0.8%	0.9%
American Indian	0.6%	0.6%	0.6%	1.0%	1.2%	1.1%
Asian	0.7%	1.0%	1.1%	0.7%	0.9%	1.0%
Native Hawaiian	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%
Some other race	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%
Two or more races	1.0%	1.6%	2.2%	1.0%	1.5%	1.9%
HISPANIC OR LATINO						
Total population	1,274,923	1,328,361	1,332,813	144,919	153,923	151,748
Hispanic or Latino (of any race)	0.7%	1.3%	1.6%	0.6%	1.1%	1.3%
Not Hispanic or Latino	99.3%	98.7%	98.4%	99.4%	98.9%	98.7%

	E Millinocket			Medway			Millinocket		
	2000	2010	2018*	2000	2010	2018*	2000	2010	2018*
RACE									
Total population	1,828	1,723	1,762	1,489	1,349	1,158	5,203	4,506	4,314
White	98.3%	97.3%	95.8%	99.1%	98.8%	98.8%	98.5%	97.7%	98.4%
Black or African American	0%	0.2%	0.1%	<0.1%	<0.1%	0.9%	<0.1%	0.2%	0%
American Indian	0.4%	0.8%	0%	0.3%	0.4%	0%	0.5%	0.7%	0.9%
Asian	0.4%	0.3%	1.0%	0.1%	0.3%	0%	0.4%	0.4%	0%
Native Hawaiian	0%	0.1%	0%	0%	0%	0%	0%	<0.1%	0%
Some other race	<0.1%	0.5%	1.2%	0%	0%	0%	<0.1%	<0.1%	0%
Two or more races	0.9%	0.8%	1.9%	0.4%	0.4%	0.3%	0.5%	0.8%	0.7%
HISPANIC OR LATINO									
Total population	1,828	1,723	1,762	1,489	1,349	1,158	5,203	4,506	4,314
Hispanic or Latino (of any race)	0.3%	0.8%	2.5%	0.3%	0.2%	2.4%	0.2%	0.5%	6.0%
Not Hispanic or Latino	99.7%	99.2%	97.5%	99.7%	99.8%	97.6%	99.8%	99.5%	94.0%

Source: Decennial Census and 2018* ACS 5-Year Estimates.

¹ <https://www.governing.com/gov-data/census/state-minority-population-data-estimates.html> Accessed January 3, 2020. Using ACS 2017 5-Year Estimates.

² https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_01-508.pdf Accessed January 3, 2020.

Distribution by Education Attainment

Educational attainment is an important measure of both culture and economic mobility. In the US, working-age (between 25 and 64) full-time workers earned a median income of \$41,000 per year. For those with less than a high school education, that figure drops to \$23,000 annually, compared with those having earned an advanced degree at \$73,000.¹ Approximately two-thirds of job openings between 2016 and 2026 will require a postsecondary degree.² While these figures vary dramatically across the country, in Maine the need for education is exceedingly relevant.

Moreover, education interventions at the earliest ages have a lasting impact over a person's lifetime and may suggest an effective avenue to increasing lifetime achievement. Research suggests that childhood development programs *save* between \$2.88 and \$17.07 in education spending for every dollar spent, depending on the program and organization.³ Participants in these programs experience improved health outcomes, increased employment rates and income, and stronger social networks. Since 2011, the state has increased enrollment in pre-Kindergarten by 44%, with 46% of all 4-year-olds enrolled.⁴ This enrollment rate compares to 57% across New England. Maine falls behind New England as a whole in 8th grade achievement levels in reading – 36% versus 39% - and math – 34% versus 38%. 2018 SAT scores suggest that 57% of 11 graders were proficient in reading and only 35% were proficient in math. Importantly, these figures decrease to 40% and 19%, respectively, among economically disadvantaged students. Overall, 87% of high school students go on to graduate compared to 88% across New England. Similarly, this figure drops to 78% among economically disadvantaged students, suggesting that interventions in schools are intimately linked to household economic stability.

Approximately 62% of Maine high school graduates enroll in college and 83% of those students go on to graduate. However, Maine ranks 8th nationally in terms of average college debt – \$32,676. These costs are roughly 38% of per capita annual income, compared to 34% across New England. Nevertheless, 45% of Mainers possess a college degree. A focus on affordability and access as well as on complementary services can help to strengthen our economy and our communities.

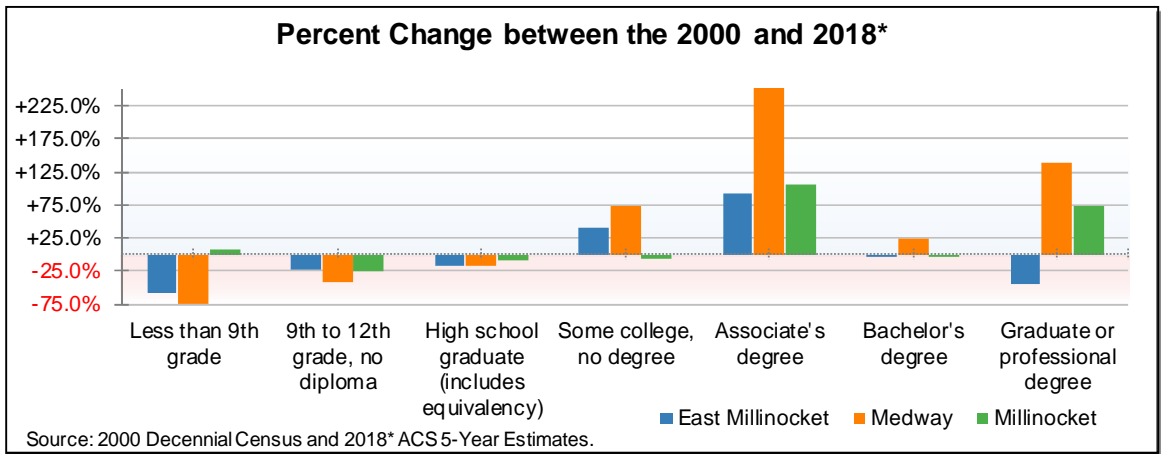
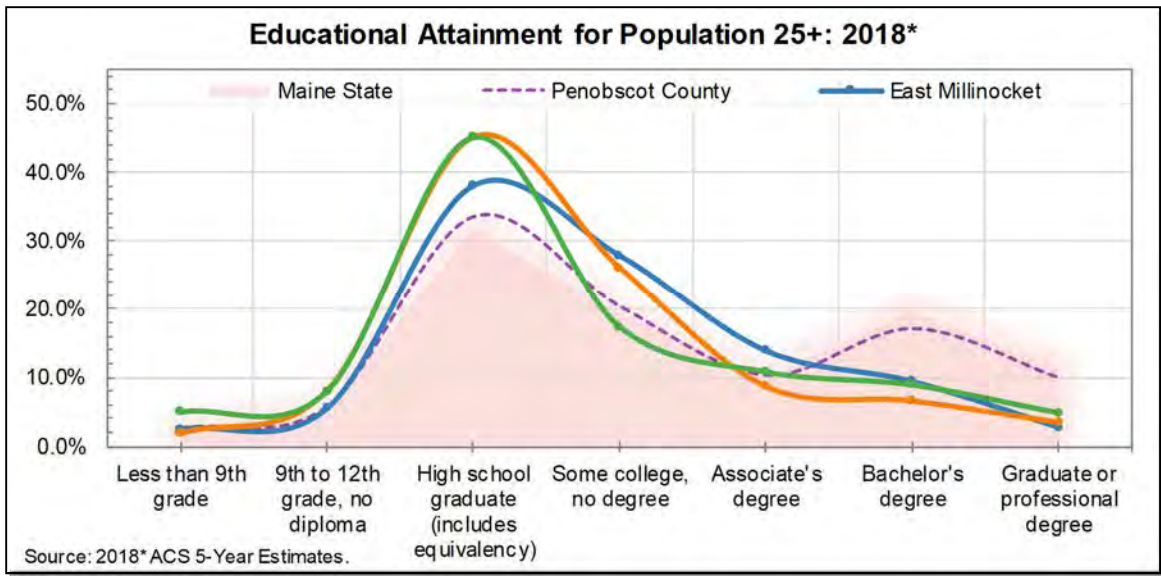
The Katahdin region trails both the state and county in the proportion of residents with Bachelor's or professional degrees. However, comparing current figures to the 2000 Census shows that **the region increased the proportion of those with some college education up through and including holders of advanced degrees by 23.4%**. The strength of the local community college and university affiliate system should be viewed as a significant asset in light of these figures.

¹ <https://www.brookings.edu/research/where-work-pays-how-does-where-you-live-matter-for-your-earnings/> Accessed January 9, 2020.

² http://www.educatemaine.org/docs/CollegeAffordBriefFINALcopyMay11_1.pdf Accessed January 9, 2020.

³ <https://www.rwjf.org/en/library/research/2016/03/can-early-childhood-interventions-improve-life-outcomes.html> Accessed January 9, 2020.

⁴ http://www.educatemaine.org/docs/2019_IndicatorsReport-FNL-WEB.pdf Accessed January 9, 2020.



Household Size and Seasonal Population

A report written in 2012 by the University of Maine entitled, *Changing Maine: Maine's Changing Population and Housing 1990-2010*, highlighted the evolving demographics of the state.¹ This report found that the region's household sizes were decreasing while seasonal housing growth was increasing. Penobscot County experienced significant growth in seasonal homes: in 1990 there were 4,038 seasonal homes compared to 6,199 seasonal homes in 2010 (34.9% growth in 20 years). The ubiquity of platforms like AirBnB adds additional seasonal housing capacity, but not always to everybody's benefit. The conversion of year-round homes and apartments to seasonal, short-term rentals can increase housing costs and decrease availability for permanent residents.² This may become an issue if demand for year-round housing in the Katahdin region increases. However, considering projected population decreases, short-term rental platforms may be a way to help stabilize and improve existing housing stock. Lessons should be drawn from places like Bar Harbor where demand for seasonal housing has pushed permanent residents out of the housing market.³

As Maine's population growth began to slow in the 1990s, a common expectation that housing growth would also slow was incorrect. The phenomenon of people living alone, older parents remaining independent, and of people having fewer children, has meant that **average household size has been decreasing**. This has economic and housing implications in addition to social and cultural complications. This trend is borne out in the Katahdin region, where average households shrank from 2.38 people in 2000 to 2.14 people in 2018.

Average Household Size and Occupancy										
	Maine		Penobscot Cty		E Millinocket		Medway		Millinocket	
	Total	%	Total	%	Total	%	Total	%	Total	%
	Occupied housing units and Percent of Total Housing.									
2000	518,200	79.5%	58,096	86.9%	780	88.9%	587	90.2%	2,295	85.7%
2010	557,219	77.2%	62,966	85.3%	768	88.2%	576	87.5%	2,167	83.8%
2018*	556,955	75.4%	61,578	81.6%	815	91.1%	501	82.3%	2150	76.3%
	Vacant Houses for seasonal, recreational, or occasional use and Percent of Vacant Housing.									
2000	101,470	75.9%	4,962	56.7%	4	4.1%	17	26.6%	27	7.0%
2010	118,310	71.9%	6,199	56.9%	14	13.6%	30	36.6%	83	19.8%
2018*	129,227	71.0%	6,885	49.5%	28	35.0%	37	34.3%	381	57.0%
	Average household size									
2000	2.39		2.38		2.34		2.54		2.25	
2010	2.32		2.33		2.22		2.34		2.06	
2018*	2.33		2.36		2.14		2.31		1.98	
Source: Decennial Census and 2018* ACS 5-Year Estimates.										

With the ubiquity of recreational activities, the Katahdin region is anticipating an increase in seasonal residents and tourist populations. During the short period it was open in 2016, the Katahdin Woods and Waters National Monument attracted 1,762 vehicles and an estimated 3,524 visitors.⁴ In 2018,

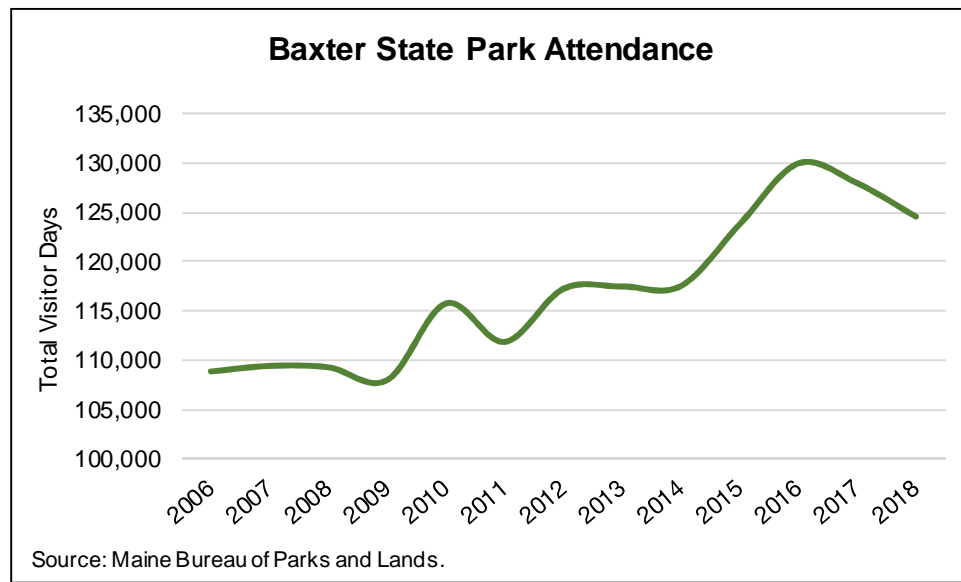
¹ https://umaine.edu/mitchellcenter/wp-content/uploads/sites/293/2013/08/Census_Report_1012121.pdf Accessed January 3, 2020.

² <https://bangordailynews.com/2019/03/07/news/hancock/bar-harbor-wants-to-fix-its-housing-shortage-by-reining-in-vacation-rentals/> Accessed January 3, 2020.

³ <https://bangordailynews.com/2019/04/03/news/as-applications-for-vacation-rentals-surge-bar-harbor-rejects-a-moratorium/>. Accessed January 3, 2020.

⁴ https://www.doi.gov/sites/doi.gov/files/uploads/nps-2018-00005_combined.pdf Accessed January 3, 2020.

these numbers increased by nearly 18%, drawing an estimated 20,000 visitors to the region as a whole. It is expected that over the next decade, the National Monument will mirror other State and Federal parks. In 2018, attendance at Maine State Parks was just under 3 million across all 48 state parks and historic sites, up 11% from 2017 and generating \$100 million in direct revenues.¹ Attendance at nearby Baxter State Park has increased 14.4% between 2006 and 2018. This suggests that there is a substantial opportunity to augment the regional economy and year-round population through recreation and tourism.



Geographic Distribution

Describing whether a place is urban or rural is, in some ways, quite complex and also quite simple. The US Census describes an urbanized metropolitan area as having a population of 50,000 or more, urban clusters as having between 2,500 and 50,000, and rural areas as having fewer than 2,500 people.² According to these definitions and the decennial census in 2010, **Maine is the *most* rural state** with 61.3% of the population living in rural areas.³ This figure is unique, as it has *increased* since the 2000 census value of 59.8%, the only state to do so in that period. Only 1.17% of Maine's land area is considered urban and is home to 38.7% of the total population. Nationally, urban populations have grown by 12.1% from 2000 to 2010, compared to a total growth rate of 9.7%. This disparity factors into conversations about housing and transportation infrastructure as much of Maine has experienced rural and suburban sprawl over the last thirty years.

Another important metric of regional character is average commute time. In the US, the average commute was 26.6 minutes according to 2018 ACS 5-Year Estimates, compared to 24 minutes in Maine, 18.3 minutes in Millinocket, 21 minutes in East Millinocket, and 21.4 minutes in Medway. This favorable comparison is somewhat misleading, however, as the percent of people working in their place of residence across the nation was 31.5%, compared to 39% in the Katahdin region. 46.3% of

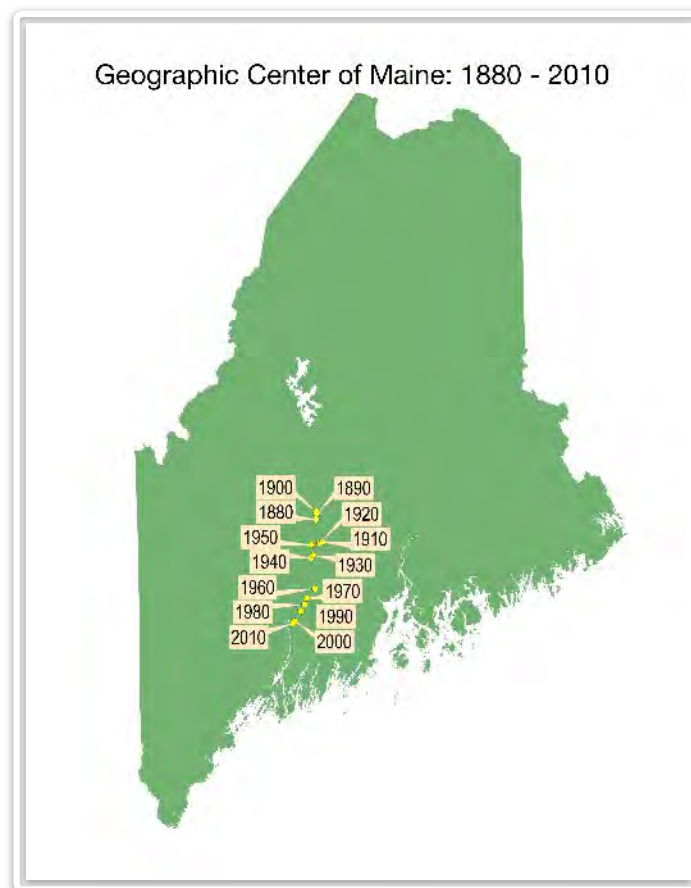
¹ <https://www.mainebiz.biz/article/maine-state-parks-achieve-record-attendance-in-2018> Accessed January 3, 2020.

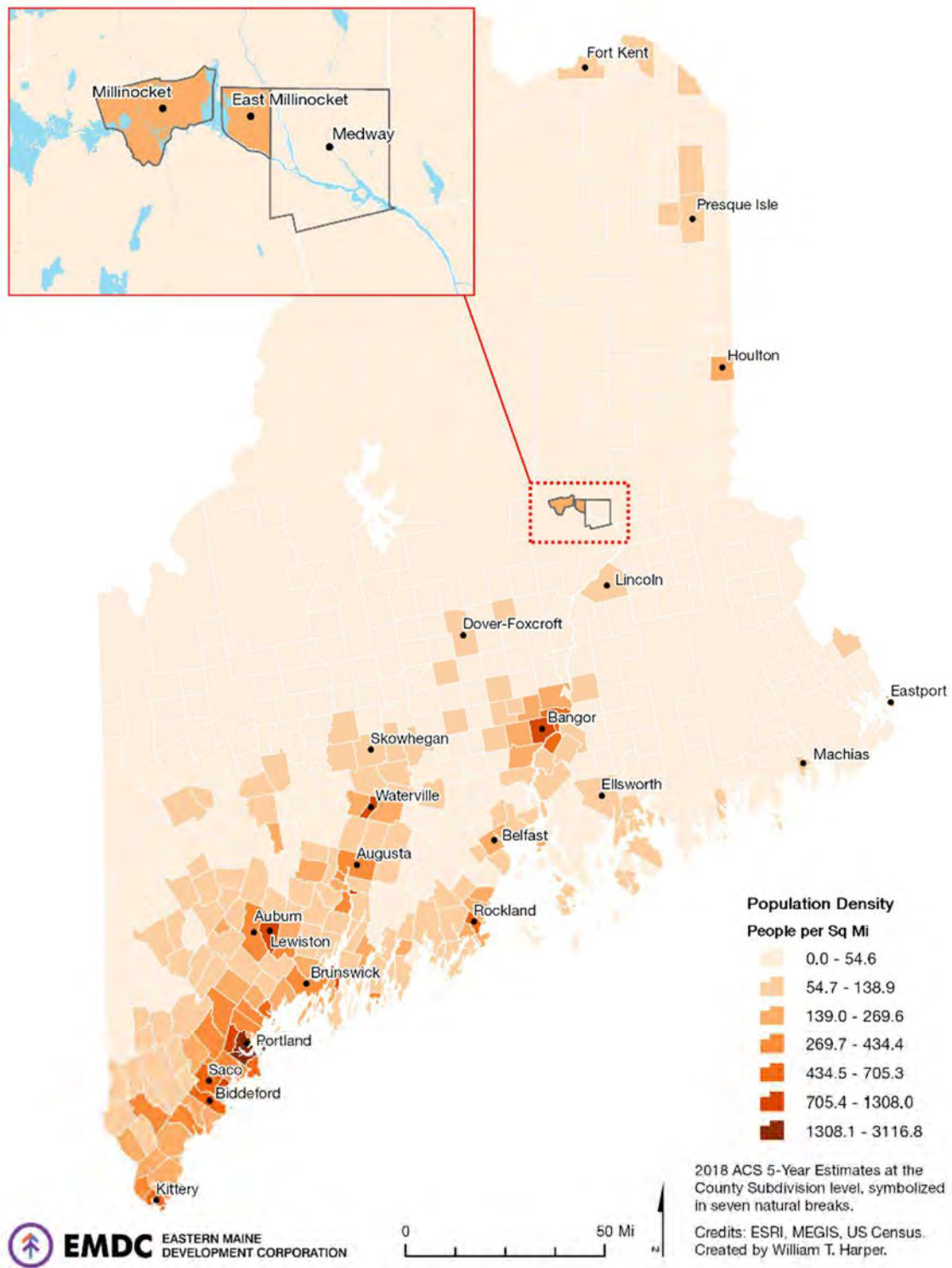
² https://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html Accessed January 15, 2020.

³ <https://bangordailynews.com/2012/03/26/business/census-maine-most-rural-state-in-2010-as-urban-centers-grow-nationwide/> Accessed January 15, 2020.

the population in the Katahdin region commutes 10 minutes or less, compared to 12.5% nationally and 17.4% across Maine.

Population density across the state is unevenly distributed, with the majority of the population living in the southern, coastal regions of the state. This distribution can be seen through the shift from agriculture-based economies to manufacturing in the late 19th century, and the subsequent shift away from centralized manufacturing in the latter half of the 20th century. As more distributed populations pursued work, the population “center” of the state began moving south and west. Over the last century, this center has migrated nearly 46 miles and is continuing to move. According to 2018 ACS 5-Year Estimates, approximately 237,000 people (17.8% of the population) live in an area of 26,144 square miles, averaging 9 people per square mile. Millinocket and East Millinocket have densities of 237 and 226 people per square mile, respectively, compared to Medway with 28 people per square mile.





Strategies and Policies

In order to encourage, promote, and develop stability and growth in the Katahdin region, the following policies and implementation strategies have been developed.

State of Maine

Minimum policies and strategies required to address state goals: None required.

Regional

- 1. Policy:** To support and continue efforts with the Katahdin Region Public Visioning process and to establish and carry out achievable goals and objectives outlined in the report.

Strategies: Make the Katahdin region the premier four-season outdoor destination in the Northeast; Future-proof the region by building social capital, use and reuse of the wood asset, protecting natural environment, local planning efforts, and expanding broadband activities; Be a place that supports and attracts people of all ages; Grow local jobs and a new regional economy; Grow the next wave of forest product manufacturing for a global economy; and, Grow walkable villages that serve as gateways to the wilderness.

Time Frame: Ongoing

Responsible Agent(s): Participants in the Katahdin Gazetteer Vision and Action Plan including Board of Selectmen, Katahdin Region Development Board, Our Katahdin, and residents of the Katahdin region.

Local

Millinocket

- 1. Policy:** Continue efforts to recruit major employers such as manufacturers and large retailers, and to complement recruitment by emphasizing existing assets and distinctive resources.

Strategies: Plan where development should or should not go, encourage growth in town where businesses can thrive on a walkable main street and where families can live close to their daily destinations. Expand affordable and energy-efficient housing, and an age-friendly community.

Time Frame: Ongoing.

Responsible Agent(s): Town Manager and Economic Development Director, Town Council, Planning Board, Our Katahdin, Katahdin Region Development Board.
- 2. Policy:** Promote small business development, which helps rural people acquire assets and create wealth. Create space for innovation and have a regulatory environment that is designed to help small businesses open safely and quickly; do not create unnecessary hurdles for business owners.

Strategies: Use word-of-mouth marketing strategies, sponsor local events, get local press coverage, give away freebies, and have an active on-line presence. Build the infrastructure (incubator and co-working space, expanded broadband capacity) to attract new populations to the community.

Time Frame: Ongoing.

Responsible Agent(s): Town Manager and Economic Development Director, Town Council, Planning Board, Our Katahdin, Katahdin Region Development Board.

East Millinocket

- 1. Policy:** To work with key organizations to focus on developing a great quality of life environment in the town that will attract new residents and businesses.

Strategies: Continue efforts to convene key organizations in promoting strategies and planning towards enhancing the quality of life that builds on the region's proximity to the wilderness, build on opportunities to promote new economic revitalization, and provide a community that attracts residents of all ages by being affordable, inclusive, and supportive.

Time Frame: Ongoing

Responsible Agent(s): Board of Selectmen (all communities), Katahdin Region Development Board, Our Katahdin, Broadband Utility Board, and other local and regional partners as identified.

Medway

- 1. Policy:** To enhance and prepare the town for any impact from future population shifts that may have bearings on housing demands, public service, shopping and home health service to our elderly.

Strategies: Work on marketing the area for economic development and housing needs.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant, Katahdin Regional Economic Director, Board of Selectmen, Planning Board

Chapter Eight:

ECONOMY

Goals/Vision

State Goal

Promote an economic climate that increases job opportunities and overall economic well-being.

Local Goals

Millinocket

To create prosperity and wealth, generate jobs, increase income and reduce poverty, and improve the quality of life for residents, visitors, businesses, and those coming to work in town.

East Millinocket

To develop strategies and goals around diversification of the economic base that will include natural resource- and tourism-based industries and businesses, and local commercial developments. To strengthen local services designed to attract diversified economic opportunities. To continue efforts that balance a younger workforce while providing services to an aging population. To continue efforts to provide new infrastructure, such as access to broadband internet.

Medway

To provide infrastructure that will enable the future of the workforce and young to be able to be gainfully employed using the means of new technologies that enable people to work from home. To be a first-stop location for visitors of the North Woods. To provide means of opportunity for commerce, business attraction, accommodations and dining by means of removing barriers to growth and opportunity.

Introduction

Millinocket, East Millinocket, and Medway developed in response to the boom in paper and pulp manufacturing in the late 19th and early 20th centuries. All three towns recognize that the mills were the central aspect of the region's economy, and – in many ways – spurred neglect in other economic opportunities for diversification. During these periods of prosperity, the Katahdin region experienced some of the highest wages and the highest per capita income in the state, guaranteeing growth and stability.

While the mills were the driver of the region's economy, their closures have forced the region to reinvent itself. Today, the three towns identify as the “gateway” to Baxter State Park, the Northern Maine Woods and Lake Region, Katahdin Woods and Waters National Monument, Debsconeag Wilderness Lakes Area, and the Maine Waterside Trails Center. These towns pride themselves on their four-season tourist attractions, providing commercial and hotel services to snowmobilers, cyclists, hikers, hunters, anglers, and all other tourists and travelers on their way north.

To attain the stability and prosperity residents of the region once knew, residents and businesses need to pursue new economic opportunities; strengthen existing businesses; build diversity in services, products, and markets; and market the unique assets the region has to offer.

Economic Statistics

The most basic measure of a region's economic health are the rates of employment and unemployment. The US Census Bureau categorizes those with jobs as *employed*, while people who are jobless or are looking for work are considered *unemployed*. People who are either retired or not pursuing work are *not in the labor force*. The sum of those employed and unemployed constitutes the *civilian labor force*, generally counted for those above the age of 16.

This definition does not necessarily capture the lived nuances of our modern working lives and economies. Many who do not participate in the labor force are going to school or are retired. Family responsibilities – such as providing childcare and eldercare – can keep others out of the labor force, while a physical or mental disability can prevent individuals from fully participating in labor force activities. Finally, this metric does not measure *under* employment, where an individual may not earn enough through their work to support themselves.

The fallout from the 2008 recession as well as the closure of the pulp and paper mills has hit the region in terms of unemployment. Between 2000 and the 2013 ACS 5-Year Estimate measure, unemployment for all three towns rose overall from 3.0% to 10.4%, an increase of 217% overall. This figure fell subsequently in the 2018 ACS 5-Year estimates to 6.7% - much lower than the previous period, but still higher than the state measure of 4.6%. Individually, East Millinocket and Medway have retained the elevated unemployment levels from the previous period, while Millinocket has returned to rates in line with the state and county.

Another important measure of employment is the proportion of the entire population actively participating in the workforce – the *labor force participation rate*. This may indicate an older population with a large number of retirees, or a proportion of individuals receiving disability or some other form of support. As the statewide labor force participation rate has decreased slightly – from 65.3% to 63.0% – between the 2000 decennial census and the 2018 ACS 5-Year estimates, so too have local and regional rates. The rates found in Millinocket, East Millinocket, and Medway decreased from 51.5%, to 50.5%, and to 47.0% in 2000, 2013* and 2018*, respectively.¹ This represents an 11.5% change between 2000 and 2013 measures, and a further 6.8% decrease between 2013 and 2018 measures regionally.

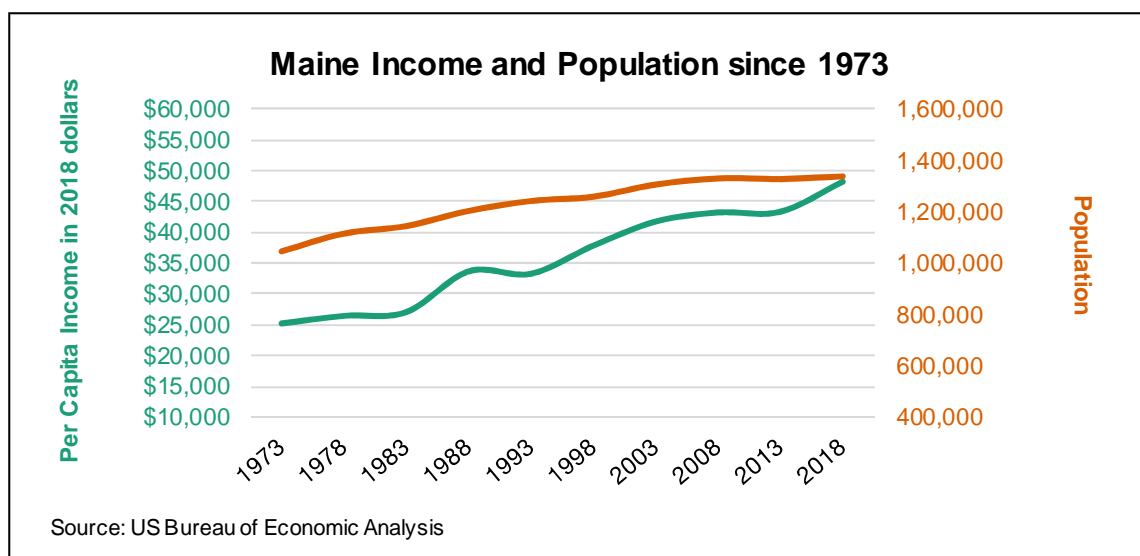
A final illustrative measure is the proportion of employed individuals to the total population, including those not in the labor force as well as those unemployed and seeking work. This again shows that fewer people in the Katahdin region are employed than is typical across the state and county. However, this may be reflective of shifting demographics, where a higher proportion of the population are older retirees.

¹ *Note that economic data were not collected in the 2010 decennial census, therefore this analysis uses the 2009-2013 and the 2014-2018 ACS 5-Year Estimates. These are not discrete measures, but rather a sampling across a 5-year period.

Overall Employment and Unemployment				
	Maine			
	Total	Labor Force Participation	Employment/ Population	Unemployment
2000	1,010,318	65.3%	61.8%	3.1%
2013*	1,092,849	64.3%	59.2%	7.7%
2018*	1,109,357	63.0%	60.0%	4.6%
	Penobscot County			
	Total	Labor Force Participation	Employment/ Population	Unemployment
2000	116,139	64.0%	60.1%	3.6%
2013*	127,626	62.6%	57.2%	8.2%
2018*	127,262	60.6%	57.1%	5.5%
	East Millinocket			
	Total	Labor Force Participation	Employment/ Population	Unemployment
2000	1,474	51.2%	48.4%	2.8%
2013*	1,409	52.1%	46.0%	11.2%
2018*	1,473	47.3%	42.8%	9.5%
	Medway			
	Total	Labor Force Participation	Employment/ Population	Unemployment
2000	1,174	54.9%	51.8%	3.1%
2013*	1,058	51.0%	41.0%	19.6%
2018*	1,015	44.1%	39.4%	10.7%
	Millinocket			
	Total	Labor Force Participation	Employment/ Population	Unemployment
2000	4,299	50.6%	47.4%	3.0%
2013*	3,805	49.7%	45.9%	7.6%
2018*	3,785	47.7%	45.5%	4.5%
Sources: Decennial Census, 2013* and 2018* ACS 5-Year Estimates for population 16 years and over.				

Income

Income patterns are relevant in evaluating a town's housing, economy, self-sourced revenues, social services, food systems, and more. The State of Maine has seen consistent increases in the relative wealth of its citizens since the middle of the 20th century.



Household Income

Median Household Income is a measurement of combined incomes and includes the salaries and wages, retirement income, food stamps, and investment gains of all people fifteen years or older and sharing a particular place of residence. The median – or midpoint – of that income distribution is a useful measure of a community's wealth. Per capita income measures the per person income, as opposed to per household. Mean household income is the *average* of all household income, rather than the median.

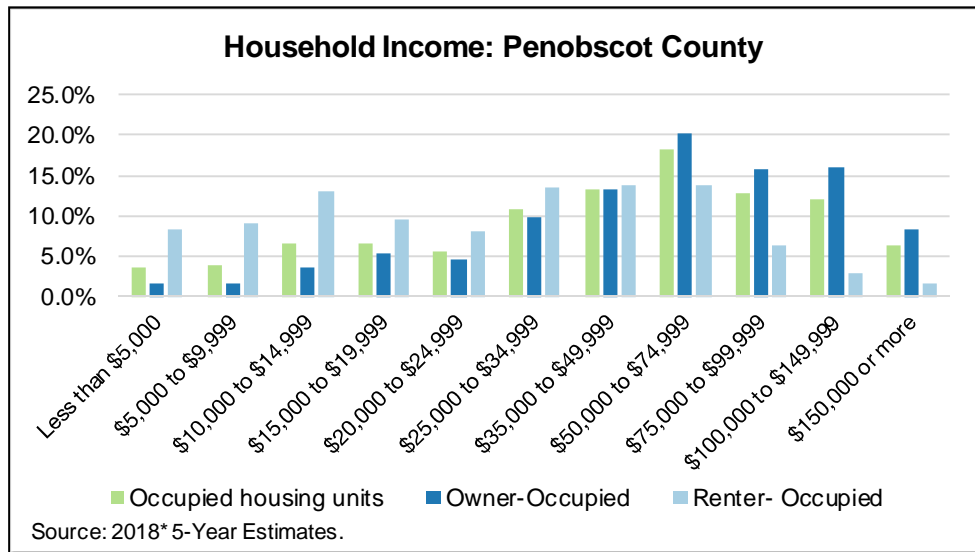
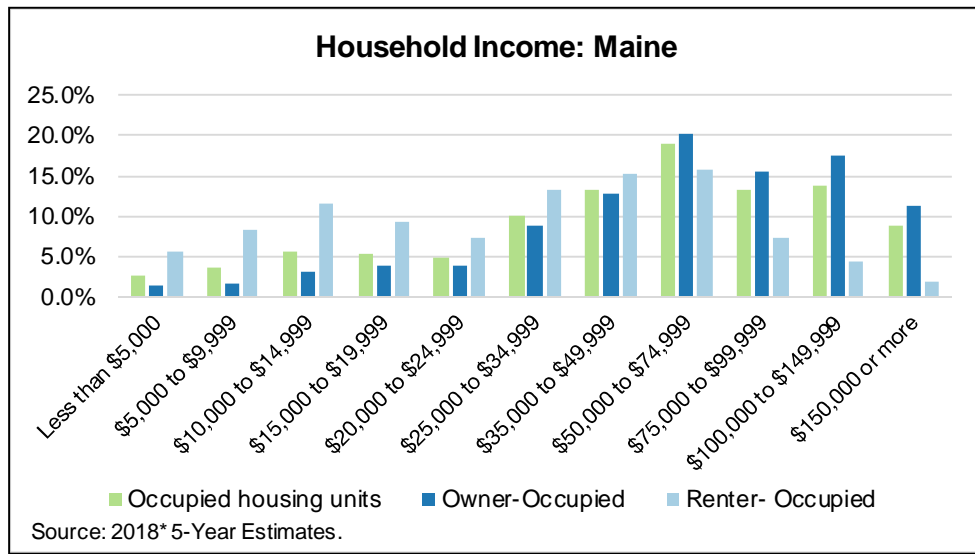
In the 1990s, median household income in the Katahdin region was nearly \$5,000 higher than in the state. However, estimates show that the relationship has not held as regional household income is between \$15,000 and \$20,000 lower in the 2018 ACS.

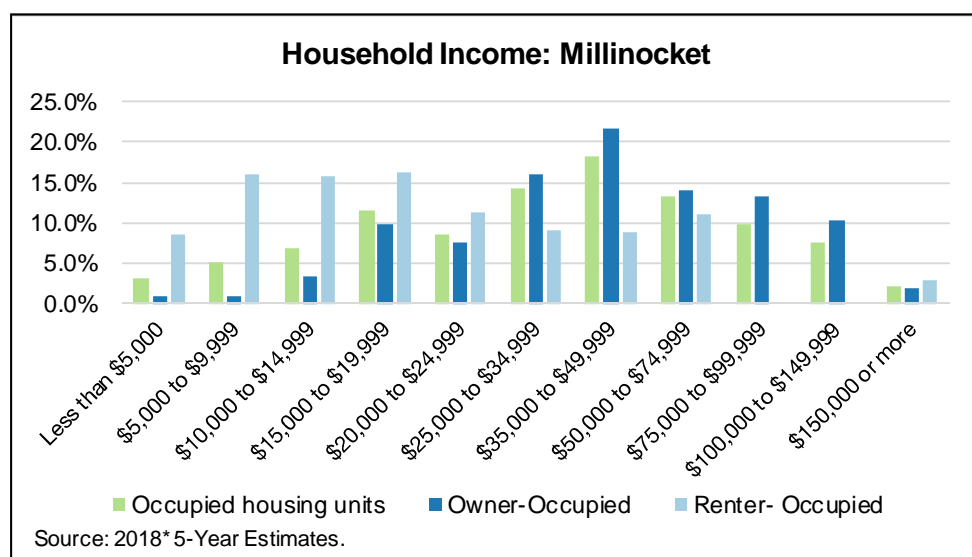
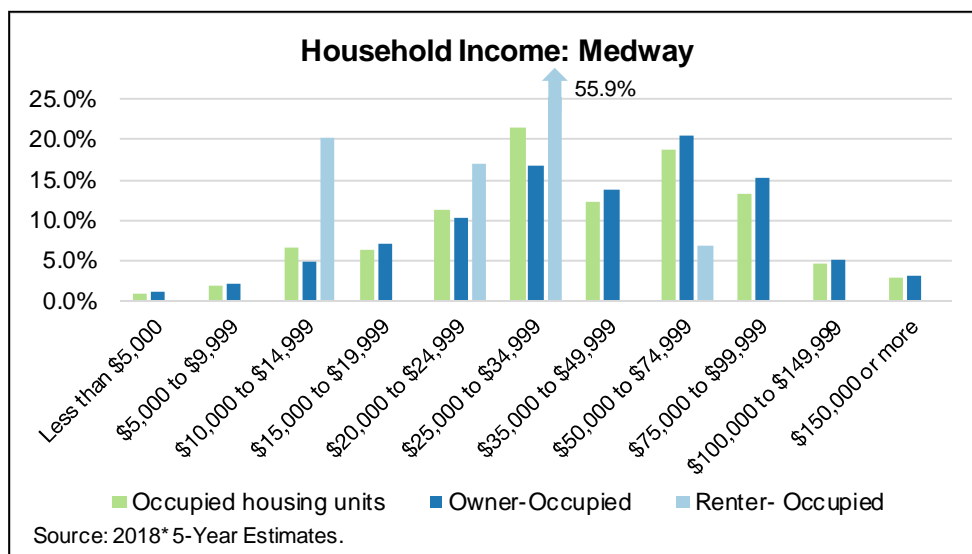
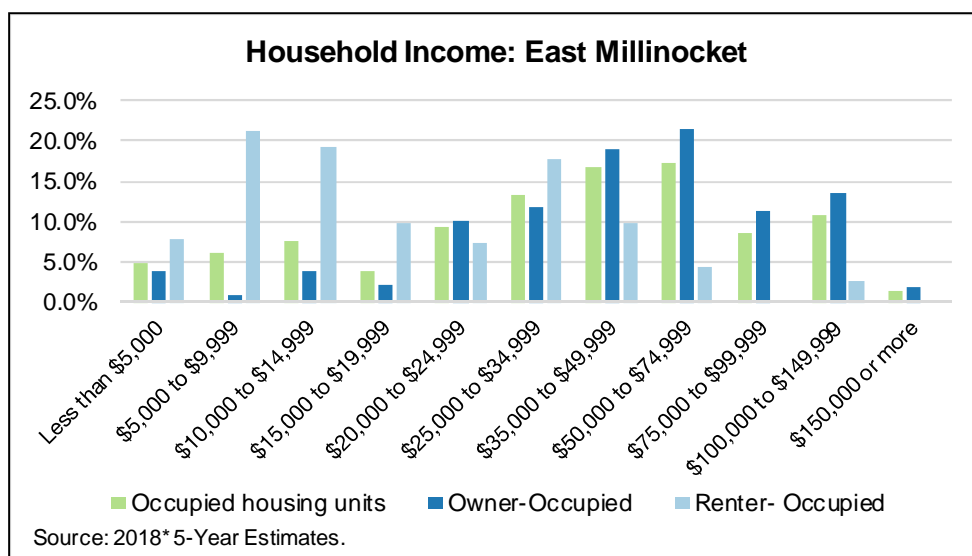
Median Household Income					
	Maine	Penobscot Cty	E Millinocket	Medway	Millinocket
1990	\$27,854	\$26,631	\$31,008	\$32,014	\$32,344
2000	\$37,240	\$34,274	\$33,542	\$33,646	\$29,318
2010*	\$46,933	\$42,658	\$34,046	\$42,300	\$35,931
2018*	\$55,425	\$49,374	\$39,688	\$37,829	\$35,697
Per Capita Income					
	Maine	Penobscot Cty	E Millinocket	Medway	Millinocket
2000	\$19,533	\$17,801	\$19,343	\$15,264	\$17,130
2010*	\$25,385	\$22,977	\$19,835	\$21,030	\$20,414
2018*	\$31,253	\$27,289	\$23,448	\$21,614	\$27,753

Sources: Decennial Census and 2018* ACS 5-Year Estimates.

Examining the distribution of household incomes for the 2014-2018 ACS estimate period, the Katahdin region is comparable to the county and state measures for all households. When comparing the distribution of income between owner-occupied and renter-occupied households, however, there are notable differences. Median household income for owner-occupied households is \$67,513 in Maine, \$61,515 in Penobscot County, \$48,553 in East Millinocket, \$41,324 in Medway, and \$39,754 in Millinocket. This compares with median household income for renter-occupied households at \$30,739, \$26,172, \$17,574, \$25,852, and \$18,796 for the same respective geographies. There is to be

an expected difference in the incomes of owner- and renter-occupied households, and the region is in line with state and county differences.





Poverty Level

The US Department of Health and Human Services (DHHS) issues poverty guidelines each year in the *Federal Register*. These guidelines are used by the Census Bureau to determine poverty status and consist of a set of thresholds including family size and number of family members less than 18 years of age. In 2018, for a household of one the poverty threshold was \$12,140; a household of two was \$16,640; a household of three was \$20,780; and a household of four was \$25,100.¹

Rates of poverty in the Katahdin region differ from town to town, with Millinocket remaining lower than state averages and Medway at higher than state averages. As a whole, the region exhibits an individual poverty rate of 14.6%, a family poverty rate of 7.4%, and a family with children poverty rate of 17.9% – all in line with county averages.

Family and Individual Poverty, 2018*						
	Maine Below Poverty Level			Penobscot County Below Poverty Level		
	Total	Total	%	Total	Total	%
Individuals	1,296,990	161,743	12.5%	145,211	22,744	15.7%
Families	347,959	27,489	7.9%	37,841	3,708	9.8%
Families with related children of householder under 18 years	138,891	19,861	14.3%	15,362	2,781	18.1%

	East Millinocket Below Poverty Level			Medway Below Poverty Level			Millinocket Below Poverty Level		
	Total	Total	%	Total	Total	%	Total	Total	%
Individuals	1,754	332	18.9%	1,158	201	17.4%	4,267	512	12.0%
Families	469	58	12.4%	354	39	11.0%	1,238	56	4.5%
Families with related children of householder under 18 years	192	47	24.5%	113	39	34.5%	343	30	8.7%

Source: 2018* ACS 5-Year Estimates, population for whom poverty is determined.

Industry Trends

The trends of overall industry in Penobscot County follow those seen statewide, with the exception of Health Care and Social Assistance in which county activity accounts for a larger proportion of overall GDP as well as a significant source of growth. The county lags somewhat in Manufacturing and in Finance and Insurance activity. Notable increases are seen in Construction – possibly a result of the recovery following the 2008 recession. Another anomaly is in Mining activity which, in Penobscot County, increased by over 10,000%; however, Mining in total accounts for 0.015% of total county GDP – \$1,214,000.

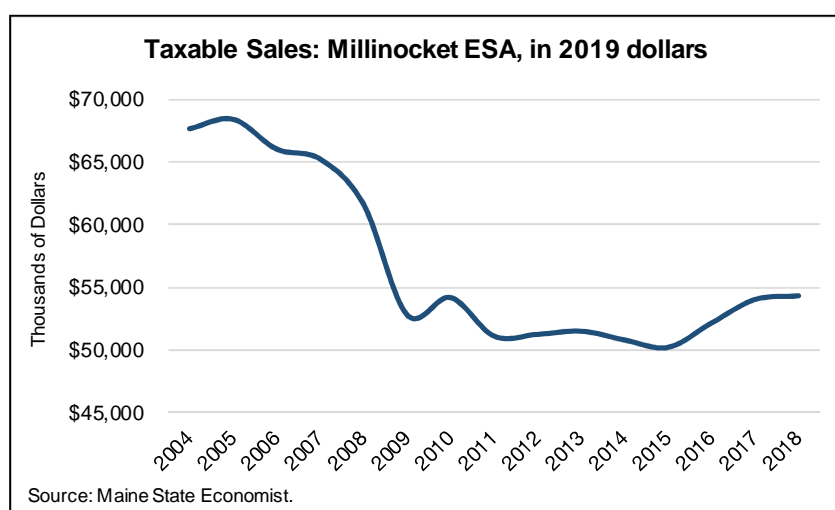
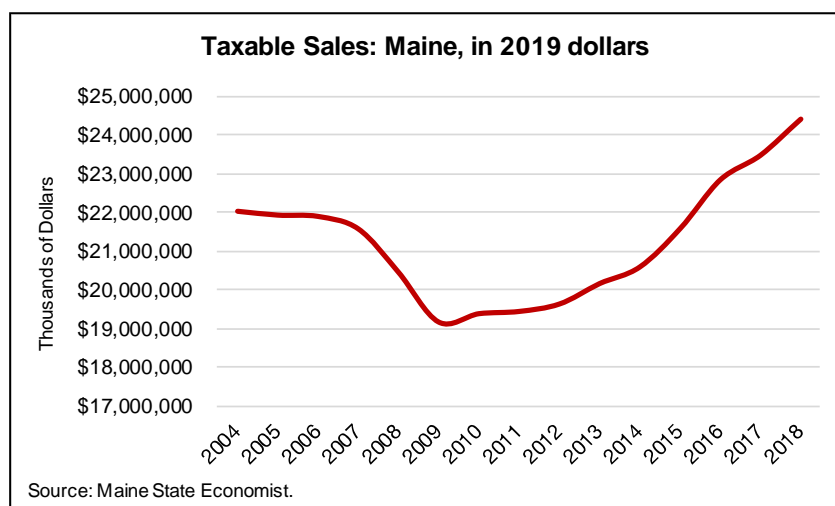
¹ <https://familiesusa.org/resources/federal-poverty-guidelines/> Accessed February 5, 2020.

GDP by Industry in Thousands of Current 2018 Dollars: 2013 - 2018										
	Maine: 2013		Penobscot: 2013		Maine: 2018			Penobscot Cty: 2018		
	Total	%	Total	%	Total	%	Change	Total	%	Change
Agriculture, forestry, fishing, and hunting	\$ 828,212	1.3%	\$ 48,638	0.7%	\$ 825,610	1.1%	-0.3%	\$ 22,037	0.3%	-54.7%
Mining	\$ 30,480	0.0%	\$ 11	0.0%	\$ 38,921	0.1%	+ 27.7%	\$ 1,214	0.0%	+ 10936.4%
Utilities	\$ 974,339	1.5%	\$ 135,732	2.0%	\$ 1,014,487	1.3%	+ 4.1%	\$ 152,366	1.9%	+ 12.3%
Construction	\$ 1,896,855	3.0%	\$ 131,344	1.9%	\$ 2,378,214	3.1%	+ 25.4%	\$ 226,420	2.8%	+ 72.4%
Manufacturing	\$ 5,388,331	8.4%	\$ 306,372	4.5%	\$ 6,169,507	8.0%	+ 14.5%	\$ 299,737	3.7%	-2.2%
Wholesale trade	\$ 3,061,218	4.8%	\$ 347,325	5.1%	\$ 3,543,910	4.6%	+ 15.8%	\$ 411,343	5.1%	+ 18.4%
Retail trade	\$ 4,413,773	6.9%	\$ 628,279	9.2%	\$ 5,129,096	6.6%	+ 16.2%	\$ 689,076	8.5%	+ 9.7%
Transportation and warehousing	\$ 1,209,079	1.9%	\$ 199,823	2.9%	\$ 1,474,826	1.9%	+ 22.0%	\$ 235,545	2.9%	+ 17.9%
Information	\$ 1,092,347	1.7%	\$ 166,858	2.5%	\$ 1,208,261	1.6%	+ 10.6%	\$ 162,882	2.0%	-2.4%
Finance and insurance	\$11,016,089	17.2%	\$ 994,368	14.6%	\$13,446,944	17.4%	+ 22.1%	\$1,190,949	14.7%	+ 19.8%
Real estate and rental and leasing	\$ 7,979,501	12.5%	\$ 810,617	11.9%	\$ 9,313,422	12.0%	+ 16.7%	\$ 934,105	11.6%	+ 15.2%
Professional and technical services	\$ 5,199,825	8.1%	\$ 428,568	6.3%	\$ 6,963,592	9.0%	+ 33.9%	\$ 579,106	7.2%	+ 35.1%
Management of companies and enterprises	\$ 801,244	1.3%	\$ 72,032	1.1%	\$ 1,301,278	1.7%	+ 62.4%	\$ 92,623	1.1%	+ 28.6%
Administrative and waste services	\$ 1,591,772	2.5%	\$ 186,519	2.7%	\$ 1,973,512	2.5%	+ 24.0%	\$ 274,940	3.4%	+ 47.4%
Educational services	\$ 891,023	1.4%	\$ 65,653	1.0%	\$ 1,044,176	1.3%	+ 17.2%	\$ 74,364	0.9%	+ 13.3%
Health care and social assistance	\$ 6,462,318	10.1%	\$ 975,959	14.4%	\$ 7,678,108	9.9%	+ 18.8%	\$1,202,779	14.9%	+ 23.2%
Arts, entertainment, and recreation	\$ 557,198	0.9%	\$ 49,411	0.7%	\$ 689,230	0.9%	+ 23.7%	\$ 50,067	0.6%	+ 1.3%
Accommodation and food services	\$ 2,020,956	3.2%	\$ 188,430	2.8%	\$ 2,899,897	3.7%	+ 43.5%	\$ 270,788	3.3%	+ 43.7%
Other services, except government	\$ 1,157,999	1.8%	\$ 122,292	1.8%	\$ 1,439,152	1.9%	+ 24.3%	\$ 137,707	1.7%	+ 12.6%
Government	\$ 7,518,973	11.7%	\$ 938,475	13.8%	\$ 8,912,091	11.5%	+ 18.5%	\$1,079,184	13.3%	+ 15.0%
TOTAL	\$64,091,532		\$6,796,706		\$77,444,234			\$8,087,232		
Source: US Bureau of Economic Analysis.										

Taxable Sales

Fluctuations in economic activity can be seen in the increases and decreases of sales tax revenues. In 2007, the State of Maine saw sales tax revenues of approximately \$21.6 billion. During the most recent recession, that figure dropped to just over 19 billion – a decrease of roughly 11%. By 2015, however, sales tax revenues for the state recovered and eclipsed pre-recession levels. The Millinocket Economic Summary Area (ESA)¹ experienced a similar downturn, reducing revenues from \$65.5 million in 2007 to \$52.8 million in 2009 – a decrease of 19%. The recovery from this downturn, however, was complicated by the closure of mills in Millinocket and East Millinocket. When adjusted for inflation, the Katahdin region has seen flat sales tax revenues. It is worth noting that during this same period, the region also saw a decrease in population. When adjusted for relative population levels, this relative lack of growth is less pronounced. Using ACS 5-Year estimates for the population of the Millinocket ESA, the total *per person* taxable sales for the years 2009 through 2018 evidences a recovery while still lagging the state significantly.

¹ Sales tax revenues are aggregated to the ESA to increase sampling accuracy. The Millinocket ESA includes Millinocket, East Millinocket, Medway, Grindstone, West Seboeis, and Woodville.



Population-Adjusted Annual Sales Tax Revenues						
		2009	2010	2011	2012	2013
Total Sales Tax	Maine	\$ 19,182,019	\$ 19,394,749	\$ 19,456,520	\$ 19,643,469	\$ 20,168,385
	Mill. ESA	\$ 52,813	\$ 54,196	\$ 51,117	\$ 51,258	\$ 51,509
Population Est	Maine	1,316,380	1,327,665	1,328,543	1,329,084	1,328,320
	Mill. ESA	8,787	8,553	8,538	8,331	8,078
Per Person Tax Revenue	Maine	\$ 14.57	\$ 14.61	\$ 14.65	\$ 14.78	\$ 15.18
	Mill. ESA	\$ 6.01	\$ 6.34	\$ 5.99	\$ 6.15	\$ 6.38
		2014	2015	2016	2017	2018
Total Sales Tax	Maine	\$ 20,598,829	\$ 21,584,863	\$ 22,840,814	\$ 23,477,342	\$ 24,405,608
	Mill. ESA	\$ 50,814	\$ 50,217	\$ 52,158	\$ 54,038	\$ 54,329
Population Est	Maine	1,328,535	1,329,100	1,329,923	1,330,158	1,332,813
	Mill. ESA	8,053	8,082	7,926	7,955	7,887
Per Person Tax Revenue	Maine	\$ 15.50	\$ 16.24	\$ 17.17	\$ 17.65	\$ 18.31
	Mill. ESA	\$ 6.31	\$ 6.21	\$ 6.58	\$ 6.79	\$ 6.89

Source: Maine State Economist, ACS 5-Year Estimates. Values in 1,000's of 2019 dollars.

Seasonal fluctuations in sales tax revenues are also an important feature of the economy. Average quarterly figures show a very strong July-August-September, coinciding with summer and early-autumn tourism, as well as a weak January-February-March, coinciding with winter.

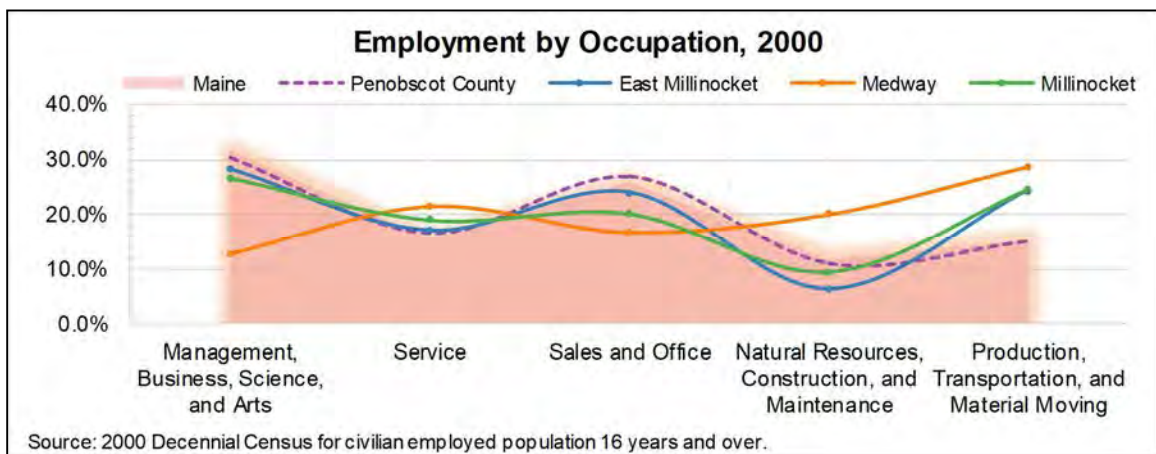
Average Quarterly Taxable Sales: Millinocket ESA, in 2019 dollars.								
	Q1		Q2		Q3		Q4	
	Total	%	Total	%	Total	%	Total	%
Total	\$ 10,612,205		\$ 12,601,465		\$ 16,304,694		\$ 12,612,132	
Personal	\$ 9,188,882	86.6%	\$ 11,398,632	90.5%	\$ 15,404,818	94.5%	\$ 11,242,406	89.1%
Business Op	\$ 1,338,733	12.6%	\$ 1,203,299	9.5%	\$ 1,128,395	6.9%	\$ 1,447,884	11.5%
Building	\$ 962,730	9.1%	\$ 1,584,106	12.6%	\$ 1,841,475	11.3%	\$ 1,992,870	15.8%
Food Store	\$ 3,104,662	29.3%	\$ 3,704,847	29.4%	\$ 4,293,947	26.3%	\$ 3,509,938	27.8%
General	\$ 483,273	4.6%	\$ 652,026	5.2%	\$ 902,173	5.5%	\$ 656,446	5.2%
Other	\$ 594,706	5.6%	\$ 787,580	6.2%	\$ 784,645	4.8%	\$ 905,824	7.2%
Auto Trans	\$ 1,760,634	16.6%	\$ 2,432,762	19.3%	\$ 2,236,962	13.7%	\$ 2,115,007	16.8%
Restaurant	\$ 1,717,804	16.2%	\$ 1,888,555	15.0%	\$ 2,967,814	18.2%	\$ 1,784,912	14.2%
Lodging	\$ 584,410	5.5%	\$ 653,558	5.2%	\$ 2,104,647	12.9%	\$ 580,873	4.6%
Rest and Lodg	\$ 2,302,214	21.7%	\$ 2,542,114	20.2%	\$ 5,072,460	31.1%	\$ 2,365,785	18.8%
Source: Maine State Economist. Averages for Q1-2013 through Q3-2019.								

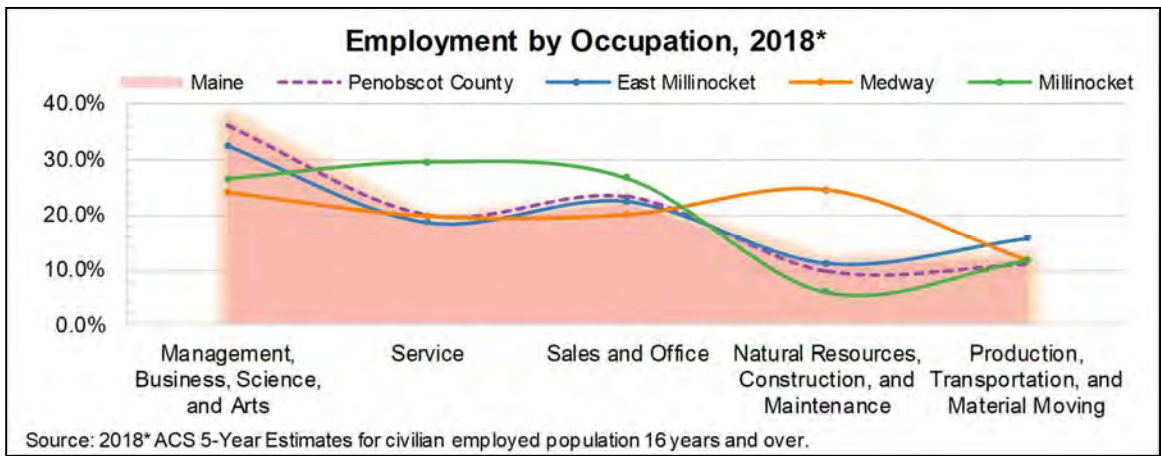
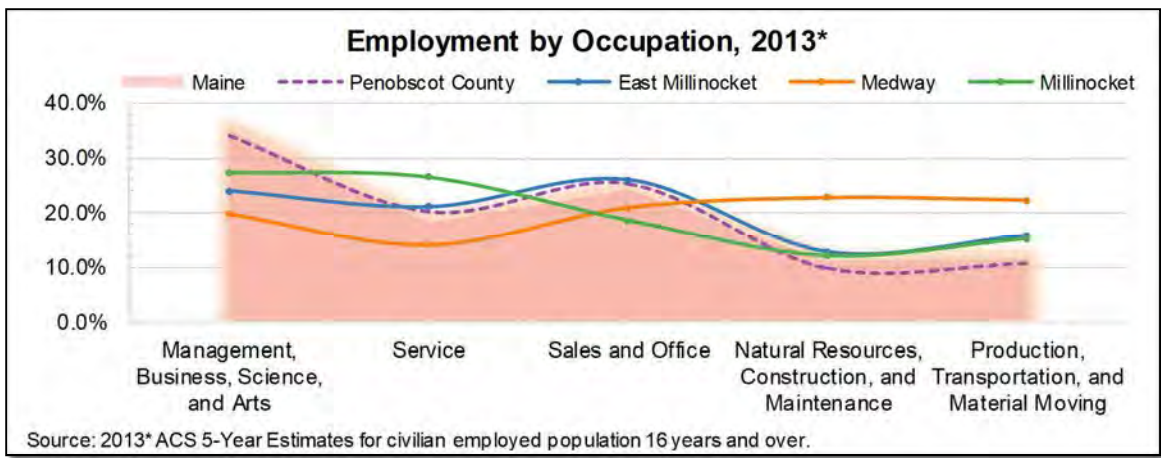
Source: Maine State Economist. Averages for Q1-2013 through Q3-2019.

Employment by Occupation

Along with the closure of the mills, there has been a noted decrease in the proportion of production, transportation, and materials-related employment. Since the 2000 census, the region as a whole went from 25.3% of employment based in the Production, Transportation, and Material Moving sector, down to just 12.5% in the 2018 ACS estimates – a decrease of nearly 60%. The enormity of this transition cannot be emphasized enough as it has sparked shifts not only in the economic stability of the region, but also marks a cultural shift away from a long history of manufacturing.

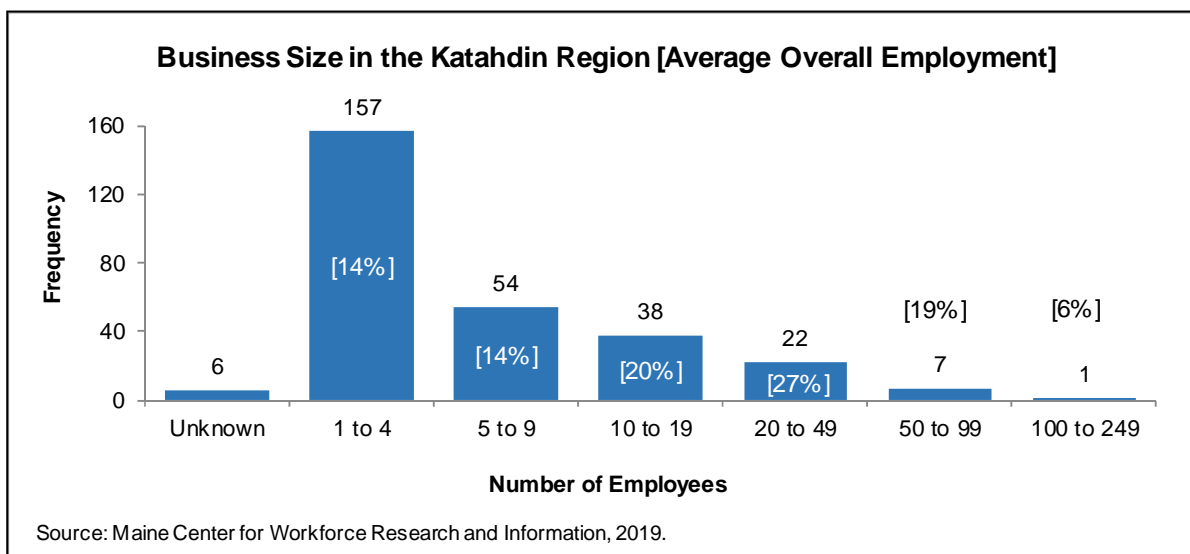
Interestingly, the towns of Medway and Millinocket have diverged from East Millinocket, emphasizing Natural Resources, Construction, and Maintenance as well as Service and Sales, respectively.





Major Employers – Katahdin Region

In line with trends in the State of Maine, the Katahdin region has an abundance of small businesses – 55% of businesses in Millinocket, East Millinocket, and Medway employ between one and four people. However, these very small businesses account for an average of 14% of total employment.



Top 30 Employers in the Katahdin Region			
Employer Name	City	# Employees	Description
Community Pool	East Millinocket	20 to 49	Fitness and recreational sports center
East Branch Snow Rovers	Medway	20 to 49	Civic and social organization
Eastmill Federal Credit Union	East Millinocket	20 to 49	Credit union
Ellis Family Shop & Save	East Millinocket	20 to 49	Supermarket and grocery store
Schenck High School	East Millinocket	20 to 49	Secondary school
Medway Middle School	Medway	20 to 49	Middle school
Scotts Co	Medway	20 to 49	Farm supply and merchant wholesale
Timberland Trucking	Medway	20 to 49	Specialized trucking
Wings For Children & Families	Medway	20 to 49	Psychiatric and substance abuse hospital
New England Outdoor Ctr	Millinocket	20 to 49	Boat dealer
River Driver's Rstrnt & Pub	Millinocket	20 to 49	Full-service restaurant
Stearns High School	Millinocket	20 to 49	Secondary school
Three Rivers White Water	Millinocket	20 to 49	Sports and recreation instruction
Katahdin Federal Credit Union	Millinocket	20 to 49	Credit union
Loose Moose Bar & Grille	Millinocket	20 to 49	Full-service restaurant
Mc Donald's	Millinocket	20 to 49	Limited-service restaurant
Millinocket Fabrication & Mach	Millinocket	20 to 49	Machine shop
Millinocket Irving Mainway	Millinocket	20 to 49	Convenience store
Millinocket Middle School	Millinocket	20 to 49	Middle school
Big Moose Inn	Millinocket	20 to 49	Bed-and-breakfast inn
Fredericka's Restaurant	Millinocket	20 to 49	Full-service restaurant
Jump & Raft	Millinocket	50 to 99	Sports and recreation instruction
KFI	Millinocket	50 to 99	Vocational and rehabilitation services
Katahdin Health Care	Millinocket	50 to 99	Nursin care facility
Baxter State Park	Millinocket	50 to 99	Nature park
Gerald Pelletier Inc	Millinocket	50 to 99	Logging
Granite St School	Millinocket	50 to 99	Elementary school
Hannaford Supermarket	Millinocket	50 to 99	Supermarket and grocery store
Recreation Department	East Millinocket	100 to 249	Recreation and administration
Millinocket Regional Hospital	Millinocket	100 to 249	General medical and surgical hospital
Source: Maine Center for Workforce Research and Information, 2019.			

Economic Development

Current and Developing Projects

Millinocket

Wastewater System

In 2016, the town replaced the 40-year-old Caterpillar generator set at the Pines Lift Station with a new Onan Cummins generator. The town is in the process of replacing the main generator at their Wastewater Treatment plant. The State Streets Upgrade Project is a two-phase project to replace 2,000 feet of sewer pipe on Minuteman Drive. Phase one was completed by T. Buck Construction Co. in 2018. In the summer of 2019, phase two of the project was started by Northeast Paving Co. Construction and began at the intersection of Cottage Road and New York St. The rest of the project is projected to be finished in the summer of 2021, which is the remainder of New York St., the length of New Jersey St., and a section of Massachusetts Ave between New York St. and New Jersey St. The Elm and Bates Streets Sewer Upgrade Project will go out to bid in January of 2021. This is a grant-funded project from the Community Development Block Grant Program. Olver Associates Engineering Co. is in the survey and design phase of upgrading the Maine Pump Station on York St. extension. The last time the pump station was upgraded was in 1993. This upgrade will be completed when funding is available in the near future.

Snow Removal Equipment (SRE) Building

Working with Maine Department of Transportation, Millinocket has made safety and infrastructure improvements to the Millinocket Municipal Airport. In 2019, construction of a snow removal equipment building was completed. In 2020, the town purchased a new carrier vehicle snow blower unit to add to its list of existing snow removal equipment. A wildlife hazard visit was part of the same grant as the new carrier vehicle. The town's other current snow removal equipment consists of a 1994 International Wheeler plow truck, a 1994 Dresser front end loader with a bucket and snow blower attachment, a 2002 GMC 2500 ³/₄ ton pickup truck with v-plow, a 2020 John Deere rider mower, and a 2021 Larue T80 carrier vehicle snow blower.

Tourism and Recreation

Millinocket has an expanding economic base in tourism and recreation. The annual Millinocket Marathon and Half (December) and the Century Bike Event (June) continue to have increased participation, with 1,155 runners in the 2017 marathon and 83 riders in the bike event.

East Millinocket

Ellis Family Market

In 2014, the Ellis Brothers – Jon and Peter Ellis, sons of founders Lou and Al Ellis – purchased the former Loundsbury's Shop 'n' Save in East Millinocket. This store is the second Ellis Family Market, which has operated a grocery store in Patten, Maine, since 1983. The Ellis Brothers expanded the former store, almost doubling it in the fall of 2015 to accommodate increased residential and tourist demand.

Town Swimming Pool Renovations

In January of 2018, the Gloria C. MacKenzie Foundation, Inc. announced that it would award a total of \$922,562 dollars in a series of 28 grants towards projects from across the State. The MacKenzie Foundation is a private foundation established in 2013 to help fund efforts in education and economic opportunities for public development in the State of Maine.

ATV Rescue Services

The Town of East Millinocket received a grant worth \$122,000 for the purchase of an ATV Rescue vehicle for the Fire Department and funding to assist ongoing efforts to renovate the local pool.

Wastewater System

In May of 2018, the United States Department of Agriculture (USDA) Rural Development announced a \$2.27 million dollar investment in the Town of East Millinocket through Rural Development Water and Wastewater Loan and Grant funds. The project was previously awarded a \$3.5 million dollar grant and a \$3.65 million dollar loan towards the project. The federal funding is set to complete upgrades to the Town's Waste Water Treatment Facility, which serves roughly 737 residents, 28 commercial and 7 government customers.

Millinocket Regional Hospital Walk-In Care

In 2017, the Millinocket Regional Hospital completed renovations on their Walk-in Care located at 87 Main Street, formerly Bangor Savings Bank. A vacant commercial space at the corner of Main and Birch Streets near the Walk-in Care building was demolished to enhance the area. The Walk-In Care Center in East Millinocket continues to serve patients with non-emergent out-patient healthcare needs (typically referred to as "episodic care"). The facility also has been designated as the location for the vast majority of out-patient COVID-19 testing services. In 2020, a special isolated room with its own entrance and exit, and negative air pressure was built to ensure the safety of patients and staff while conducting COVID-19 specimen collection (nasal swabbing). The new room inhibits viral spread between patients as air is continually exhausted during testing. Regular Walk-In Care patients are served in a separate part of the facility apart from the COVID testing area.

Other

The East Millinocket Federal Credit Union recently completed their renovations in 2015 to add drive-through services to motorists. The Family Dollar store was constructed in 2016. This new retail store brought some much needed retail opportunities to the area. NAPA Auto Parts expanded their commercial space at their current location on Main Street in 2017. In addition, Crandall's Hardware completed renovations to their building and business in 2010 with back storage added in 2018.

Medway

Scott's Company

Scotts Miracle-Gro Company, a wholesale farming supply company, recently replaced their dye system and added two new lines to their inventory. In addition, they have expanded their buildings to increase storage capacity.

Medway Playground Renovations

Starting in 2017, Medway began renovations to the town's playground. The renovations were funded by a \$200,000 grant with a contribution of \$20,000 from the Town of Medway, as well as an \$80,000 grant from The McKenzie Foundation. The renovations included all new grade, fill, and replacement of the playground base and equipment. Crews removed the tennis courts and created a paved parking lot. The funds also allowed for the replacement of the ballfield shed and fence. The project was completed in 2019.

Future Opportunity

The Katahdin region communities intend to utilize all state, regional, and local programs that provide resources and benefits to economic development. Tax incentives, payment in lieu of taxes (PILT), and our designation as a Pine Tree Development Zone (PTZ) will also enhance the new designation as opportunity zones, bringing economic revitalization and opportunity to the region.

Opportunity Zones

Under the Tax Cuts and Jobs Act of 2017, Maine Governor Paul LePage designated East Millinocket and Millinocket as *Opportunity Zones*. These zones are part of a federal economic development program that encourages investments in low-income areas by offering tax deferral for capital gains reinvested in Opportunity Zone businesses and a permanent exclusion for gains from the investment.

Industrial Parks

The region has numerous industrial parks, a capable workforce, and a career center located in East Millinocket that can help train employees for high tech jobs of the future. The region also features high quality of life, a fantastic school system, and low crime rates making the Katahdin region an ideal area to locate or relocate new or existing business.

Millinocket

Great Northern Paper Mill Site

This Millinocket mill completely stopped operations in 2011, leading to a decline in high wage jobs, hundreds of unemployed residents, an increase in the town's mill rate, and an outmigration of population. The site is situated on 1,400 acres of land with 400 acres classified as contaminated brownfields and 1,000 acres of undeveloped green space. Assets remaining at the former mill site include:

- A major thoroughfare into and out of the mill – Golden Road – a 96-mile private road built by Great Northern Paper that stretches from the St. Zacharie border crossing to the terminus at the mill site;
- Roads and wood yard infrastructure designed for traffic flow and wood yard management;
- A 32-megawatt hydropower-generating facility that dramatically reduces the cost of power.
- Buildings remaining on the site are the Administration Building, Engineer and Research Building, Number 11, Plant Engineering, Store Room, and Warehouse Seven.

The mill site was purchased in 2017 by Our Katahdin who intended to develop the site into a multi-tenant industrial park, hosting both traditional and innovative forest products businesses such as cross-laminated timber (CLT) manufacturing, bio-refining, and nano-cellulose production. The site is also of interest to potential tenants in the aquaculture, food production, and data center industries. A recent Economic Development Administration (EDA) investment of \$5.3 million will help facilitate

infrastructure improvements to roads, water and wastewater systems, power, rail, and the installation of truck scales. This funding is supplemented by additional funds for EPA brownfields rehabilitation, expansion of broadband capacity, and construction investments to house new business tenants.

Huber Forest Products and Technology Park

The Huber Forest Products and Industrial Park is a property located on the east end of Millinocket on 308 acres across eight lots, with individual parcels ranging in size from 12.1 acres to 63.2 acres. Huber Resources Corp and the currently inactive Gardner Chip mill share one lot. The Town's goal is to attract new tenants to fill these sites.

East Millinocket

Great Northern Paper Mill Site

The Town of East Millinocket was the home of a second facility operated by Great Northern paper. This 214-acre former paper mill is located on Route 157/ Main Street along the West Branch of the Penobscot River. This property is undergoing demolition of older buildings with hopes to retain several other buildings that will be converted to other industrial uses. The Town of East Millinocket purchased this site in July of 2020 and is working with others to seek out alternative industrial developers to use these buildings. In addition, the town formed East Millinocket Industrials, LLC, and a new entity that is performing work related to the purchase of the mill. The newly formed Katahdin Region Development Board and its Executive Director will work to enhance opportunities for this former mill site.

Katahdin Regional Industrial Park

The Katahdin Regional Industrial Park, constructed in 1990, is located in East Millinocket along Route 157, three miles from I-95 Medway interchange and 6 miles from Millinocket Regional Airport. This 68-acre park has 22 lots ranging in size from one acre to over 6 acres. Each site is serviced by town water, sewer, three-phase power, telephone, and has access to the Three Ring Binder Broadband fiber optic network. Several sites have access to Canadian Pacific lines. In addition, the park has a facility built specifically to provide workforce training and entrepreneurial services.

Coworking Spaces

230 Penobscot Avenue, Millinocket

Our Katahdin purchased the Miller's building, a former department store which closed in 2008. Our Katahdin has been awarded an EPA cleanup grant to begin renovations to reuse it as a co-working space, supporting new entrepreneurs, innovation, and small business growth. With funds from Eastern Maine Development Corporation and additional EDA investment, a consultant will be engaged to help with space design, development of a business plan, best practices research, and creation of a strategic plan for build out and operations. This space is being connected with high-speed broadband technology to support enhanced communications and tech-based businesses. Launching of the co-working space is scheduled for 2020.

Other

Millinocket

In addition to the projects named, Millinocket will continue to pursue other economic development projects that can spur economic growth and vitality. The Solar Farm located near the Town's wastewater treatment plant has the potential to provide energy- and cost-efficient power for the plant and the Town's Transfer Site.

East Millinocket

The Town has a growing animal day-care facility, Katahdin Kritters, located at the Katahdin Regional Industrial Park. This facility serves residential pet care needs and provides day care for pets of travelers who intend to visit Baxter State Park. The park has pet restrictions and this day care facility offers a solution to those who wish to bring their pets along on vacation.

Medway

Medway has secured a contract with Katahdin Communications for the installation and operation of a communications tower in anticipation of future broadband communications opportunities.

Region

The region is also looking to expand broadband capacity to support increased business activity including home-based businesses. Currently, there is consideration of a broadband utility between the towns of Millinocket, East Millinocket, and Medway with grant support from the Northern Border Regional Commission and USDA Rural Developments Community Connector program. The addition of broadband would create the opportunity for remote workers to reside within a small, hometown community and still provide a secure income and future for growing families. This is made possible by the creation of the Three Ring Binder network of high-speed fiber optic cable, interconnecting Maine communities to the US and Canada. The Katahdin Regional Broadband Board leads this effort with representatives from the tri-towns.

Strategies and Policies

In order to promote an economic climate that increases job opportunities and overall economic well-being, the Katahdin region has developed policies and implementation strategies for their respective towns in addition to the following state policies and strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To support the type of economic development activity the communities desire, reflecting their role in the region.
2. To make a financial commitment, if necessary, to support desired economic development, including needed public improvements.
3. To coordinate with regional development corporations and surrounding towns as necessary to support desired economic development.

Strategies:

Minimum strategies to meet state goals:

1. If appropriate, assign responsibility and provide financial support for economic development activities to the proper entity (e.g., a local economic development committee, a local representative to a regional economic development organization, the community's economic development director, a regional economic development initiative, or other).
2. Enact or amend local ordinances to reflect the desired scale, design, intensity, and location of future economic development.
3. If public investments are foreseen to support economic development, identify the mechanisms to be considered to finance them (local tax dollars, creating a tax increment financing district, a Community Development Block Grant or other grants, bonding, impact fees, etc.)
4. Participate in any regional economic development planning efforts.

Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket, Millinocket, Medway

Local

Millinocket

- 1. Policy:** The town will further refine the already established areas best suited for development.
Strategies: The town will update their land use ordinance to be consistent with the updated comprehensive plan. This action will continue to reduce the likelihood of incompatible uses, will channel growth into appropriate locations within the town, and will retain the quality of life to which Millinocket residents have become accustomed. Furthermore, the town will consider adding language to their land use ordinance that incorporates voluntary design criteria compliance in an effort to make the town more aesthetically pleasing.
Time Frame: Ongoing
Responsible Agent(s): Town Manager, Planning Board, and Town Council
- 2. Policy:** The town will encourage labor force training.
Strategies: The town recognizes the importance of adequate training for the creation and maintenance of a healthy and competitive workforce. The town also recognizes regional education assets such as adult education, vocational schools, community colleges, graduate and undergraduate programs, the Katahdin Regional Higher Education Center (KRHEC), Literacy Volunteers, SCORE, job-training programs, and federal training programs. Program information will be made available at the town hall in the form of brochures and catalogues.
Time Frame: Ongoing
Responsible Agent(s): Town Manager, Town Council, and KRHEC
- 3. Policy:** The town will pursue grants and investments to fund the needs of the town as well as our partners in business or non-profit sectors.
Strategies: The towns will continue to contact the applicable state and federal agencies to solicit information regarding block grants and other revenue sources. A review of the needs of existing and potential uses will be conducted to match those needs with potential funding sources. The town will evaluate the potential for the establishment of a Katahdin Investment Fund. This investment fund would be used as a potential resource for access to capital for town and business development projects.
Time Frame: Ongoing
Responsible Agent(s): Town Manager and Town Council
- 4. Policy:** The town will seek ways to diversify the local economy.
Strategies: Options for diversifying the local economy range from annexing new lands adjacent to Millinocket, to encouraging individuals to undertake new business ventures or to expand home occupations. Home occupation performance standards will continue to be included in the land use ordinance to ensure compatibility with residential neighborhoods and adjacent properties. Home occupations will continue to be allowed in various locations throughout the community.
Time Frame: Ongoing
Responsible Agent(s): Code Enforcement Officer, Planning Board, Town Manager, and Town Council
- 5. Policy:** The town will promote community awareness and community pride.

Strategies: The town will continue to promote community and Katahdin pride by working with the school system to develop programming to educate students about the town's history and by continuing to participate with the regional efforts of Our Katahdin and the Katahdin Chamber of Commerce.

Time Frame: Ongoing

Responsible Agent(s): Town Manager, Town Council, School Department, Our Katahdin, and Katahdin Chamber of Commerce

6. Policy: The town will promote regional cooperation.

Strategies: On a regional level, the town will continue to work with nearby towns on economic development to promote regional marketing. A plan to combine all economic development efforts in the region will be considered, including the sharing of tax revenues. The host community would receive the largest percentage of the revenue with the remainder being split between the other participating communities. This initiative will help to instill Katahdin Pride as outlined in Policy #5 and will foster cooperation across the region by removing the economic development competition between communities while encouraging optimism and open-mindedness. Representatives from the town will continue to work with adjacent communities for a joint approach to policing, transportation, recreational bike paths, solid waste, land use planning and other pertinent issues as they may rise.

Time Frame: Ongoing

Responsible Agent(s): Town Manager, Planning Board, Town Council, and Recreation Advisory Committee

7. Policy: The town will encourage a diversified economic base.

Strategies: Interested parties will be sought to invest in the region to expand recreational opportunities. The town will implement the recommendations contained in the airport master plan, which will strengthen the airport's opportunities for future growth and expanded services. The town will continue to secure a Pine Tree Development Zone, which will further diversify the community's economic base. The Planning Board will work with potential developers to ensure that the process is conducted in a timely manner and that town regulation and ordinances are followed. Natural resources based tenants will be welcomed within the community and encouraged to locate to the Huber Industrial Park.

Time Frame: Ongoing

Responsible Agent(s): Town Manager, Town Council, and Planning Board.

East Millinocket

1. Policy: To diversify manufacturing and technology based industry.

Strategies: To increase broadband accessibility and to secure and improve industrial properties for manufacturing or industrial reuse.

Time Frame: Within 2 years

Responsible Agent(s): Administrative Assistant, Board of Selectmen, Broadband Utility, and East Millinocket Industrials, LLC, Katahdin Region Development Board

2. Policy: The town will continue to keep current ordinances and policies.

Strategies: The town will update their land use ordinance to be consistent with the updated comprehensive plan. This action will continue to reduce the likelihood of incompatible uses, will channel growth into the appropriate locations within the town, will bring clarity to developers as they work to comply with local ordinances, and will improve the aesthetics of the community. **Time Frame:** Ongoing

Responsible Agent(s): Administrative Assistant, Planning Board, Board of Selectmen

3. **Policy:** The town will encourage labor force training (attraction and retention).

Strategies: The town recognizes the importance of adequate training for creation and maintenance of a healthy and competitive workforce. The town also recognizes that adult education, vocational schools, community colleges' graduate and undergraduate programs, Katahdin Higher Education Center (KHEC), Literacy Volunteers, SCORE, job training programs, and other federal programs in the area are an asset to the entire region. Program information will be made available at the town hall in the form of brochures and catalogues.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant, Board of Selectmen, School Board and other Boards

4. **Policy:** The town will pursue grants to fund the needs of the town.

Strategies: The towns will continue to contact the applicable state and federal agencies to solicit information regarding block grants and other revenue sources for improvements to the town. A review of the needs of existing and potential uses will be conducted to match the needs with potential funding sources. Once the information has been gathered, procurement of the funds will be pursued.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant and Board of Selectmen

5. **Policy:** The town will seek ways to diversify the local economy.

Strategies: Options for diversifying the local economy will be a focus for development at the former mill site and the industrial park. The Town will work with local and new businesses to assist them in expansion or new entrepreneurial developments. The Town will provide outreach to organize discussions with existing business owners to develop a plan for success.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant and Board of Selectmen

6. **Policy:** The town will promote regional cooperation.

Strategies: On a regional level, the town will continue to work with near-by-towns on economic development to promote regional marketing. A plan to combine all economic development efforts in the region will be considered. Representatives from the town will continue to work with adjacent communities for joint solutions to issues and opportunities as they arise.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant and Board of Selectmen

7. **Policy:** The town will encourage a diversified economic base.

Strategies: The town will continue to work to bolster the industrial and retail community and to promote the community as a four-season community. Interested parties will be sought to invest in the region to expand industrial, business, tourist and service related opportunities. The Planning Board will work with potential developers to ensure that the process is conducted in a timely manner and that town regulation and ordinances are followed.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant and Board of Selectmen and Planning Board

- 1. Policy:** To establish areas best suited for economic, housing and recreational development.
Strategies: To define and zone future identified prime industrial, commercial, housing and recreational properties.
Time Frame: Ongoing
Responsible Agent(s): Administrative Assistant, Board of Selectmen, Medway Planning Board and Code Enforcement
- 2. Policy:** The town will encourage a diversified economic base.
Strategies: The town will continue to work with local large landowners to bolster the industrial and retail community and to promote the community as a four-season recreational community. Interested parties will be sought to invest in the region to expand industrial, business, tourist and service related opportunities, taking full advantage of future broadband, and establishing Pine Tree Development Zone. The Planning Board will work with potential developers to ensure that the process is conducted in a timely manner and that town regulation and ordinances are followed.
Time Frame: Ongoing
Responsible Agent(s): Administrative Assistant and Board of Selectmen and Planning Board and Code Enforcement
- 3. Policy:** The town will continue to keep current ordinances and policies; to update outdated and create new as needed.
Strategies: The town will update their land use ordinance to be consistent with the updated comprehensive plan and to continue to create ordinances as necessary for future development and expansion. This action will continue to reduce the likelihood of incompatible uses, will channel growth into the appropriate locations for future zones within the town and to bring clarity to developers as they work to comply with local ordinances and to improve the aesthetics of the community.
Time Frame: Ongoing
Responsible Agent(s): Administrative Assistant, Planning Board, Board of Selectmen and Code Enforcement
- 4. Policy:** The town will work towards promoting regional cooperation.
Strategies: On a regional level, the town will continue to work with near-by-towns on economic development to promote regional marketing in collaboration with the Katahdin Regional Economic Development Director. A plan to combine all economic development efforts in the region will be considered. Representatives from the town will continue to work with adjacent communities for joint solutions to issues and opportunities as they arise.
Time Frame: Ongoing
Responsible Agent(s): Administrative Assistant, Planning Board, Board of Selectmen and Code Enforcement
- 5. Policy:** The town will seek ways to diversify the local economy.
Strategies: Options for diversifying the local economy will be a focus for development that promote urban development through the opportunity to work from home remotely through broadband access and affording the opportunity to play in your own backyard through park and river access and potential future bike and ATV access. The Town will work with local and new businesses to assist them in expansion or new entrepreneurial developments. The Town

will provide outreach to organize discussions with existing business owners to develop a plan for success.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant and Board of Selectmen, Board of Selectmen and Code Enforcement

CHAPTER NINE:

HOUSING

Goals/Vision

State Goal

To encourage and promote affordable, decent housing opportunities for all Maine citizens.

Local Goals

Millinocket

To identify strategies to increase reuse of current properties as housing. To demolish deficient housing so that remaining homes will rise in value and housing will be proportional to population. To evaluate opportunities for new housing – single tenant, multi-tenant, and mixed-use housing – as well as promoting owned and rental units.

East Millinocket

To encourage and promote high quality, affordably owned or rented housing through home improvement programs, façade programs, etcetera. To continue efforts to demolish dilapidated homes, offering land to adjoining homes to increase lot sizes making the properties and the community more aesthetically attractive and thereby increasing overall values. To work towards a cohesive plan of action that will systematically increase the values of homes to meet or exceed state median house values, thereby reducing the overall tax rates for taxpayers in the community.

Medway

To encourage and promote development of opportunities for affordable housing to be owned and rented through available home improvements grants, development programs, etc.

Introduction

Housing is a central aspect to a community's physical, economic, and cultural health and well-being. The age and condition of housing stock has knock-on effects in terms of energy consumption, maintenance costs, and exposure to lead and asbestos. The affordability of housing – in terms of both ownership and rental markets – impacts social services dedicated to preventing homelessness. Seasonal housing can boost a region's economy through tourism and is a cultural mainstay of many Maine communities.

Millinocket and East Millinocket are unusual in that they are considered two examples of “planned” communities. To serve the employees and families of local pulp and paper mills, the Great Northern Paper Company organized the construction of workforce housing. Because Great Northern owned virtually all of the land adjoining their mills, the company was able to control housing growth and land subdivision from the very start. Great Northern restricted the usage of land to residential purposes through deeds and provided minimum house valuation standards. Such conditions helped to assure the adequacy, sturdiness, and harmony of what would become relatively dense, walkable

neighborhood housing. These historic patterns are felt in the grid patterns of these neighborhood areas.

Early settlement in Medway followed the East and West banks of the Penobscot River, the first major thoroughfare for transportation in the region. Today that area is still the most densely developed part of town as both arteries of vehicle transportation run parallel to the river. Medway is considered by many to be a bedroom community to its neighbors, which was especially true when the mills were at their zenith.

The years following World War II saw the Katahdin region's sharpest growth in housing, resulting in over 900 new dwellings in Millinocket, East Millinocket, and Medway. Predictably, Great Northern Paper was expanding its operations and anticipating increased demand.

The geographic size of the towns has also played a role in housing development. Townships in Maine cover an average of 35 square miles, while Millinocket covers 16.0 square miles and East Millinocket covers 7.1 square miles. The limited physical area of these two towns combined with Great Northern Paper Company's planning led to a densely populated urban area in the middle of vast forestlands. However, Medway's ample 41.0 square miles has allowed the local housing market to develop more spread out and sprawling housing and commercial spaces.

Following the retreat of the pulp and paper industry and the subsequent closure of the mills in Millinocket and East Millinocket, the region has seen a slowdown in housing growth commensurate with a decline in population. The future of the region's housing is likely to follow the needs of its aging and declining population as well as a shift to service, tourism, and recreation industries.

Housing Inventory

Historic

The following table shows total housing units for the Katahdin region, Penobscot County, and the State of Maine. According to the U.S. Census and ACS estimates for 2018, the Katahdin region had an estimated 4,323 housing units, a growth rate of 2.8% from 2000. During this same period, the population in the region decreased from 8,520 to 7,234, a decrease of 15.1%.

Total Housing Units: 1960 to 2018*										
	Maine		Penobscot Cty		E Millinocket		Medway		Millinocket	
	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
1960	364,617		39,675		611				2,021	
1970	397,169	+8.9%	42,791	+7.9%	692	+13.3%	391		2,301	+13.9%
1980	501,093	+26.2%	49,416	+15.5%	830	+19.9%	590	+50.9%	2,725	+18.4%
1990	587,045	+17.2%	61,359	+24.2%	881	+6.1%	676	+14.6%	2,874	+5.5%
2000	651,901	+11.0%	66,847	+8.9%	877	-0.5%	651	-3.7%	2,679	-6.8%
2010	721,830	+10.7%	73,860	+10.5%	871	-0.7%	658	+1.1%	2,586	-3.5%
2018*	739,077	+2.4%	75,490	+2.2%	895	+2.8%	609	-7.4%	2,819	+9.0%
Source: Decennial Census and 2018* ACS 5-Year Estimates, Maine State Economist.										

Current

According to the 2018 ACS 5-Year Estimate, the Katahdin region had 4,323 total housing units, including houses and apartments. Of these, 3,466 – or 80.2% – were occupied. Generally, as the occupancy rate increases, pressures to find available housing also increase. This pressure is often more acute for the rental market where lower income individuals and families often acquire housing. Ideal vacancy rates for rental property range from 7 to 8%, with 12% considered high and 20% or more considered *hyper-vacancy*.¹ Homeowner vacancy rates are considered healthy at much lower levels – 2 to 4%. The Katahdin region is experiencing low rental vacancy rates and an abundance of for-sale housing. The result is a lack of affordable rental housing but an abundance of affordable houses for purchase.

Housing Characteristics, 2018*										
	Maine		Penobscot Cty		E Millinocket		Medway		Millinocket	
	Total	%	Total	%	Total	%	Total	%	Total	%
Total Housing Units	739,077		75,490		895		609		2,819	
Occupied	556,955	75.4%	61,578	81.6%	815	91.1%	501	82.3%	2,150	76.3%
Vacant	182,122	24.6%	13,912	18.4%	80	8.9%	108	17.7%	669	23.7%
For rent	10,857	6.0%	1,406	10.1%	0	0.0%	4	3.7%	0	0.0%
Rented, not occupied	2,466	1.4%	497	3.6%	0	0.0%	0	0.0%	42	6.3%
For sale only	7,448	4.1%	733	5.3%	16	20.0%	7	6.5%	56	8.4%
Sold, not occupied	2,528	1.4%	232	1.7%	10	12.5%	4	3.7%	0	0.0%
For seasonal, recreational, or occasional use	129,227	71.0%	6,885	49.5%	28	35.0%	37	34.3%	381	57.0%
For migrant workers	237	0.1%	24	0.2%	0	0.0%	0	0.0%	0	0.0%
Other vacant	29,359	16.1%	4,135	29.7%	26	32.5%	56	51.9%	190	28.4%
Source: 2018* ACS 5-Year Estimates.										

¹ <https://www.citylab.com/equity/2018/07/vacancy-americas-other-housing-crisis/565901/> Accessed January 7, 2020.

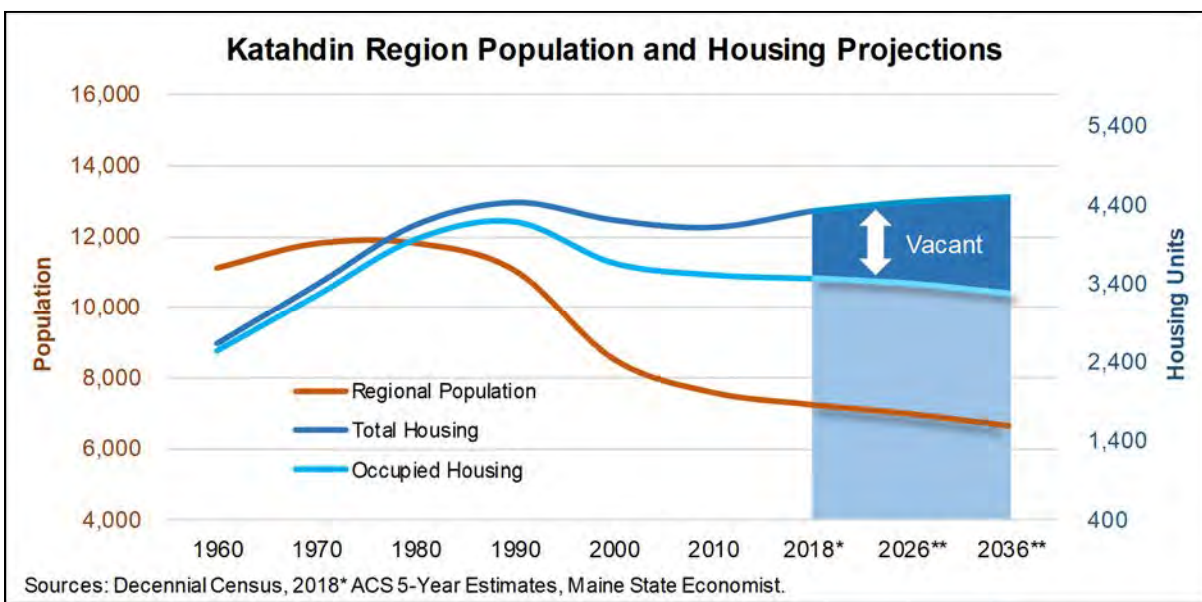
Projected Housing Need

As the demographics of the Katahdin region shift, so too will the overall demand for housing. Embedded in this is the imminent retiring age of the Baby Boomer generation. As individuals leave the job market, income and payroll taxes will decrease. Consequently, as many have invested a significant amount of equity in their homes specifically for retirement, many of these houses will become available with fewer individuals ready to purchase them. The result will be – in most communities in Maine – an overall decrease in the value of homes and an increase in their supply. Conversely, as older individuals leave their single family homes and seek more convenient rental properties, this will increase the price and decrease the availability of rentals.

Estimates for overall housing demand are also complicated by decreasing household sizes, as discussed in Chapter 7: Household Size and Seasonal Population. As fewer individuals occupy more houses, the overall demand for housing increases, but individual expenses for housing also increase. In smaller households, individuals must pay *more* for their own housing than if they commingle their expenses with a family, a partner, or a roommate. Thus, the recent trend of decreasing household size more broadly translates to increasing per capita housing costs.

Finally, as energy prices are expected to increase in the future, so too will home heating costs. According to the Maine Housing Authority, Maine has the 8th oldest housing stock in the nation.¹ Nearly 70% of homeowners and 62% of renters heat their homes using heating oil which fluctuates wildly in cost.² As the condition of this already marginal housing stock continues to deteriorate, demand will increase for both high quality replacement housing and affordable rehabilitation services.

Following recent trends in population and housing, the Katahdin region will likely see an increase in overall housing to accommodate seasonal needs, while the number of occupied housing units will decrease following population trends.



¹ https://www.mainehousing.org/docs/default-source/policy-research/Federal-Funds/analysis-of-impediments-to-fair-housing.pdf?sfvrsn=34c4a715_9 Accessed January 7, 2020.

² As of Fall 2019, the cost per million BTU of home heating oil is \$19.04, compared to cord wood at \$12.50, wood pellets at \$16.24, natural gas at \$12.01, kerosene at \$23.78, and electricity at \$46.31, according to the Maine Office of Energy.

Housing Affordability

Housing affordability depends on a number of variables including market price, cost of living, and income levels. Generally, housing is considered affordable at 30% of household income.¹ According to the Maine Housing Authority, in 2017, over 50% of houses sold in Maine were considered unaffordable, while the Millinocket Labor Market Area (LMA)² boasts a rate of only 20%. Similarly, rental costs in Maine mean that 59.6% of 2-bedroom apartments are unaffordable, while in the Millinocket LMA over 77% are considered unaffordable. This is reflected in the rates of rental vacancies for the region. Millinocket and East Millinocket have some of the most expensive rental housing in Penobscot County with the average 2-bedroom apartment costs \$912 and \$1,212 per month, respectively.³ In these communities, 72.0% of Millinocket residents and 84.5% of East Millinocket residents cannot afford average rental prices.

These trends are reflective of national trends over the last 30 years. National median rent costs rose 20% faster than inflation and median home prices increased 40% faster than inflation over the last 25 years.⁴ Among the potential causes for this trend are speculative property investments, restrictive development policies, municipal and state property tax structures, and structural inequality in incentive and reimbursement programs.⁵ It is likely that a combination of these phenomena as well as patterns in mobility and preference are the roots for our current housing affordability crisis.

Housing Affordability: 2017							
	Median Home Price	Median Income	Income Needed to Afford Median Home Price	Households unable to afford Median Home		Total Households	Hourly Wage to Afford Median Home
				%	Total		
Millinocket LMA	\$ 55,000	\$ 34,976	\$ 17,161	20.0%	856	4,286	\$ 8.25
Penobscot Cty	\$ 139,000	\$ 44,806	\$ 41,550	47.5%	29,776	62,739	\$ 19.98
Maine	\$ 197,000	\$ 53,190	\$ 57,089	54.1%	305,672	565,295	\$ 27.45
	Average 2BR Rent incl Utilities	Renter Household Median Income	Income Needed to Afford Average 2BR Rent	Households Unable to Afford Avg 2BR Rent		Total Renter Households	Hourly Wage to Afford Average 2BR Rent
				%	Total		
Millinocket LMA	\$ 1,113	\$ 22,859	\$ 44,513	77.1%	693	899	\$21.40
Penobscot Cty	\$ 926	\$ 25,849	\$ 37,046	64.3%	12,785	19,869	\$17.81
Maine	\$ 977	\$ 30,804	\$ 39,093	59.6%	96,448	161,746	\$18.79

Source: Maine State Housing Authority.

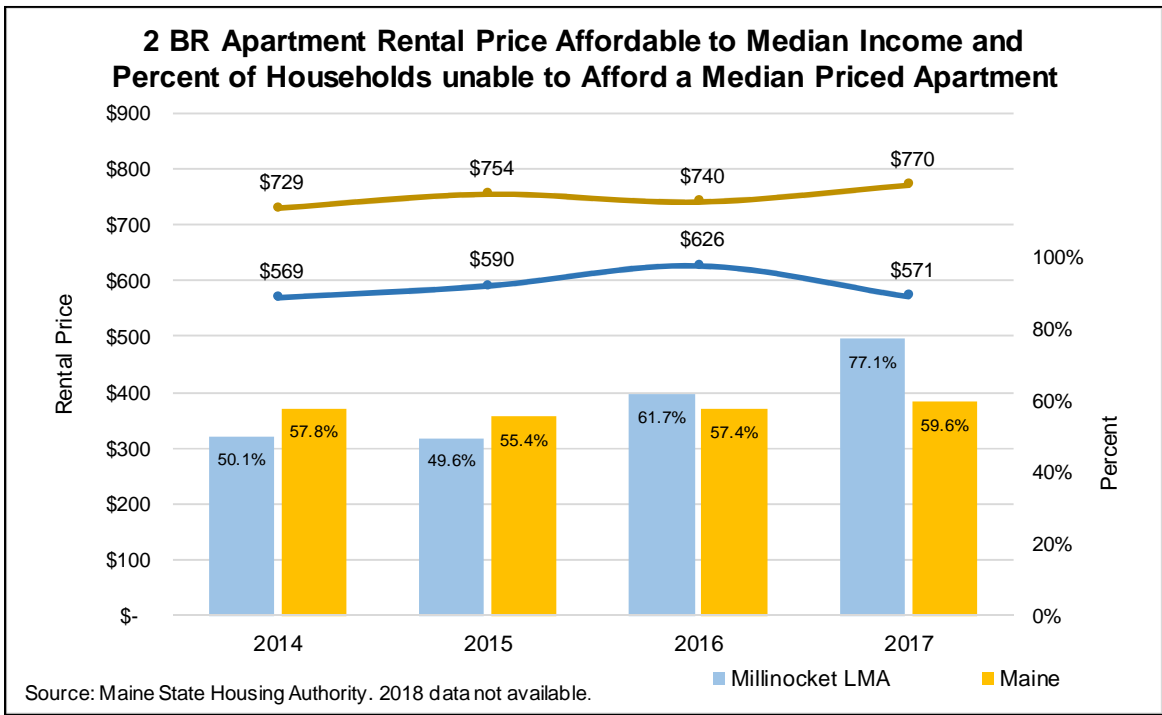
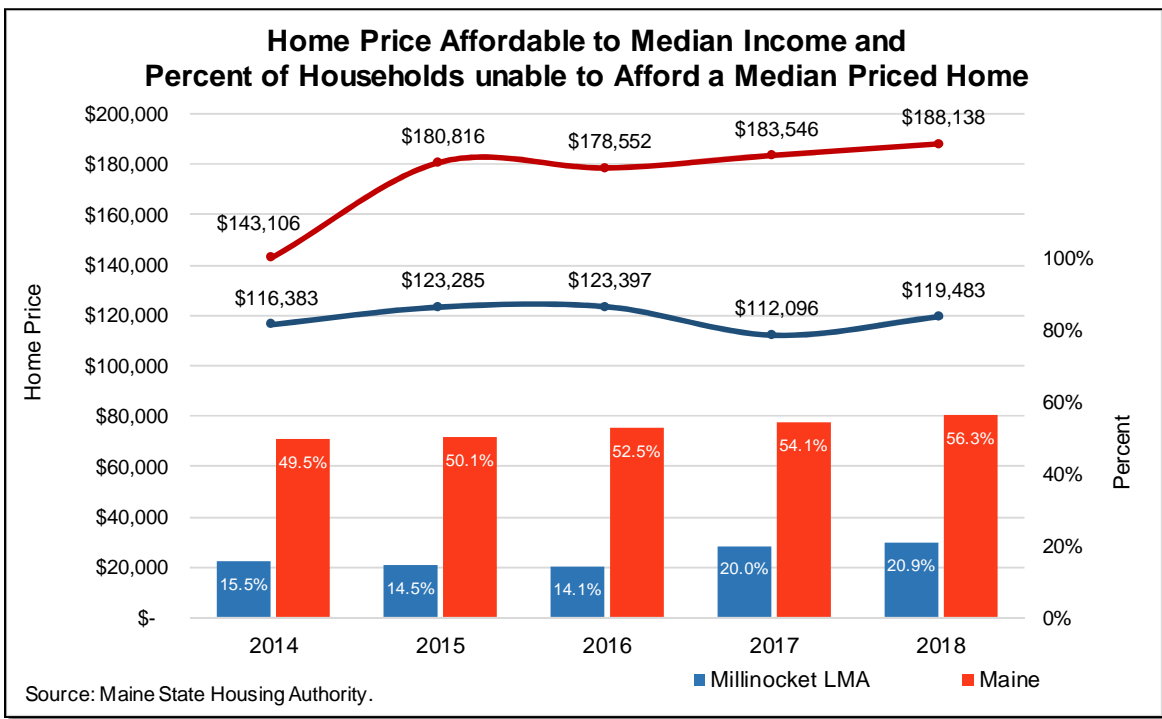
¹ https://www.hud.gov/program_offices/comm_planning/affordablehousing/ Accessed January 7, 2020.

² The Millinocket Labor Market Area includes East Millinocket, Glenwood Plantation, Mattawamkeag, Maxfield, Medway, Millinocket, Northeast Piscataquis UT, North Penobscot UT, Seboeis Plantation, South Aroostook UT, and Woodville.

³ https://www.mainehousing.org/docs/default-source/policy-research/housing-facts/2017/penobscotcounty2017.pdf?sfvrsn=cb9a015_4 Accessed January 7, 2020.

⁴ <https://www.jchs.harvard.edu/state-nations-housing-2018>. Accessed January 7, 2020.

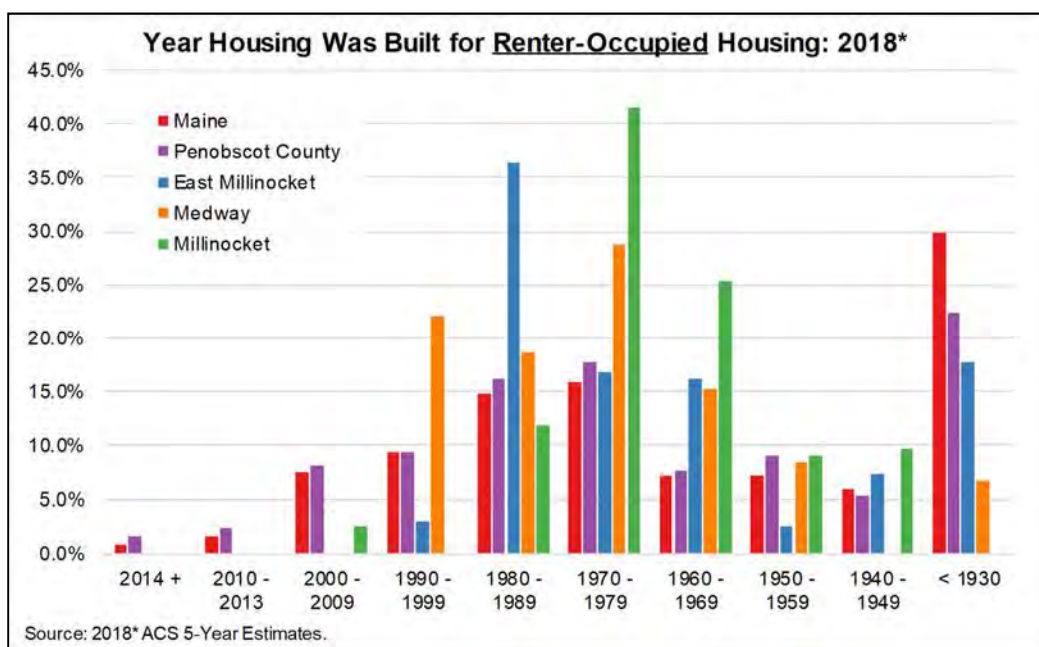
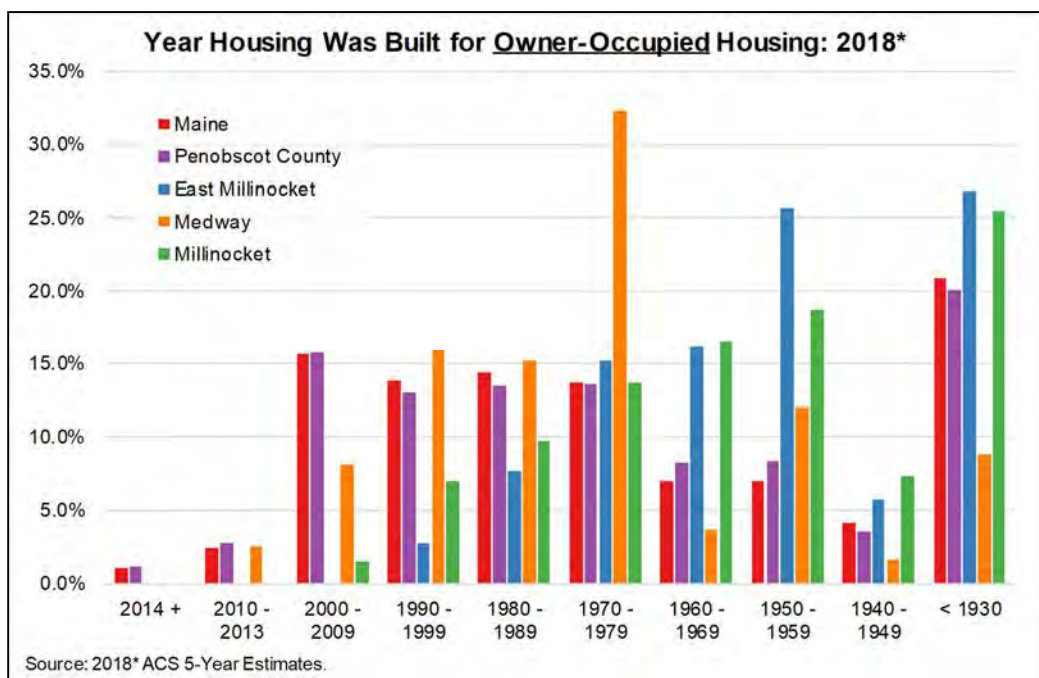
⁵ <https://www.brookings.edu/research/whos-to-blame-for-high-housing-costs-its-more-complicated-than-you-think/>. Accessed January 21, 2020.



Occupancy Demographics

Age of Home by Tenure

Maine's housing stock is the eighth oldest in the nation. 20.9% of owner-occupied and 29.8% of renter-occupied housing units were constructed prior to 1939. Millinocket and East Millinocket differ from the state and county in that very few housing units – 5.8% – have been built since 1989, a time when housing starts were booming. Medway, however, has seen the overwhelming majority of owner- and renter-occupied housing built in the 1970s – 31.9%. In fact, more than 73% of housing built in Medway was constructed after 1970.



Homeownership: Families, Non-Families, and Individuals

Home ownership is generally used as an estimate for the overall standard of living in an area. A high rate of owner-occupied housing is typical for Maine. In the 2018 ACS 5-Year Estimate, Maine households were 72.2% owner-occupied and 27.8% renter-occupied. This proportion is roughly similar across all geographies.

2018* Household Type, Average Household Size, and Change from 2000						
	Maine			Penobscot Cty		
	Total	%	Change	Total	%	Change
2018 Population	1,332,813		+4.5%	151,748		+4.7%
Total Housing Units:	556,955		+7.5%	61,578		+6.0%
Owner occupied:	402,119	72.2%	+8.4%	42,921	69.7%	+5.8%
Family households:	284,686	70.8%	+2.8%	30,502	71.1%	-0.7%
Married-couple family:	239,753	84.2%	+1.2%	25,056	82.1%	-4.3%
Other family:	44,933	15.8%	+12.0%	5,446	17.9%	+20.5%
Nonfamily households:	117,433	29.2%	+25.1%	12,419	28.9%	+26.2%
Renter occupied:	154,836	27.8%	+5.1%	18,657	30.3%	+6.4%
Family households:	63,273	40.9%	-0.6%	7,339	39.3%	+3.3%
Married-couple family:	32,650	51.6%	-7.4%	3,464	47.2%	-7.0%
Other family:	30,623	48.4%	+7.8%	3,875	52.8%	+14.6%
Nonfamily households:	91,563	59.1%	+9.5%	11,318	60.7%	+8.4%
Avg Household Size	2.33		-2.5%	2.36		-0.8%
Owner occupied	2.44		-3.9%	2.49		-2.7%
Renter occupied	2.03		+0.0%	2.04		+3.0%

	E Millinocket			Medway			Millinocket		
	Total	%	Change	Total	%	Change	Total	%	Change
2018 Population	1,762		-3.6%	1,158		-22.2%	4,314		-17.1%
Total Housing Units:	815		+4.5%	501		-14.7%	2,150		-6.3%
Owner occupied:	612	75.1%	+2.9%	442	88.2%	-11.6%	1,567	72.9%	-8.5%
Family households:	389	63.6%	-15.8%	326	73.8%	-16.6%	1,039	66.3%	-20.0%
Married-couple family:	319	82.0%	-22.4%	287	88.0%	-17.8%	929	89.4%	-18.2%
Other family:	70	18.0%	+37.3%	39	12.0%	-7.1%	110	10.6%	-32.1%
Nonfamily households:	223	36.4%	+67.7%	116	26.2%	+6.4%	528	33.7%	+27.2%
Renter occupied:	203	24.9%	+9.7%	59	11.8%	-32.2%	583	27.1%	+0.2%
Family households:	80	39.4%	-14.0%	28	47.5%	-40.4%	199	34.1%	-22.9%
Married-couple family:	32	40.0%	-30.4%	15	53.6%	-44.4%	50	25.1%	-65.0%
Other family:	48	60.0%	+2.1%	13	46.4%	-35.0%	149	74.9%	+29.6%
Nonfamily households:	123	60.6%	+33.7%	31	52.5%	-22.5%	384	65.9%	+18.5%
Avg Household Size	2.14		-8.5%	2.31		-9.1%	1.98		-12.0%
Owner occupied	2.22		-9.8%	2.39		-7.0%	2.15		-8.5%
Renter occupied	1.9		-4.0%	1.73		-26.7%	1.53		-21.5%

Source: Decennial Census and 2018* ACS 5-Year Estimates.

Code Enforcement

Building codes are essential for public health and safety, the preservation of our surrounding habitats, and the efficiency and durability of our built environment. These regulations guide the design, construction, repair, alteration, and maintenance of all types of structures. Generally, codes are based on international, federal, and state guidelines, such as the International Building Code (IBC).¹ Maine has adapted these into the Maine Uniform Building and Energy Code (MUBEC), which applies to communities of 4,000 persons or more. The state also mandates code requirements for plumbing, electrical, fuel storage, fire prevention, septic systems (discussed in Chapter 5), shoreland zoning (discussed in Chapter 4), and floodplain management (also discussed in Chapter 4).

Each town has a code enforcement officer that issues and administers the building permit process in conjunction with a local planning board. The code enforcement officer enforces state and local regulations and acts as a consultant to the board and town officials, investigates code violation complaints, and assists in building and subdivision site evaluations.

Subsidized Housing

Millinocket

Located in the town of Millinocket are the following local affordable housing establishments:

- Maine Avenue Manor – Located at 110 Maine Ave, Maine Avenue Manor is a twenty-two apartment complex with 20 one-bedroom and two two-bedroom apartments. Apartments are specifically available to heads or co-heads of households 62 years or older, or who are struggling with a disability or handicap. Penobscot County income limits apply.
- Mountain View Apartments – Located at 16 Walnut St., Mountain View Apartments is a 17-unit complex. The property is part of the Project-Based Rental Assistance through the Project-Based Section 8 contract with HUD.
- Stearns Assisted Living – Located at 80 Maine Ave, Stearns Assisted Living is a twenty-bedroom apartment complex with all units being single bedroom. The apartments are specifically available for those age 62 years or older. On-site services are provided by Penquis and include numerous programs ensuring supportive care. The complex accepts Section 8 Housing Choice Vouchers (HCV) and is part of the Low Income Housing Tax Credit (LIHTC) program.
- Terre Haute Apartments – Located at 2 Fern St., Terre Haute Apartments is specifically available for those 62 years or older or are disabled. There are 40 units and a tenant pays 30% of their adjusted income.
- Crestview Apartments – Located at 1 Crestview Circle. Similar to Terre Haute: 40 units, 62 years of age or older, any age if you are disabled, and tenant pays 30% of their adjusted income.

East Millinocket

Located in the town of East Millinocket are the following local affordable housing establishments:

- Oak Park Manor – Located at 2 Oak St., Oak Park Manor is a forty- four unit apartment complex with 32 one-bedroom and 12 two-bedroom apartments. Apartments are specifically available for those 62 years or older, or those struggling with a disability or handicap regardless

¹ https://www.bangormaine.gov/filestorage/1538/1540/1542/1560/11361/precouncil_code_2.pdf Accessed January 12, 2020.

of their age. Subsidies are available for a designated 40 apartments. Penobscot County income limits apply.

- Silverwood Court – Located at 1 Oak St., this is a privately owned, low-income subsidized, multi-family apartment housing for families to rent.
- Sweet Seniors Home – Located at 30 Pine St., Sweet Senior's Guest House is an assisted living facility. Assisted living facilities provide care for people who require assistance with the activities of daily living. This care setting provides an intermediate level of care for residents who cannot live independently, but who do not yet need around-the-clock skilled nursing services.

Medway

Located in the town of Medway are the following local affordable housing establishments:

- Hafford's Apartments – This is a privately owned single to three bedroom apartment complex for families to rent
- Old Farm Trailer Park – Located on Route 116, this is a privately owned trailer park with Trailers to rent and or lots to allow renters to park their privately owned trailers
- Lennie's Superette Apartments –Privately owned apartments for families to rent
- Stanley's Apartments – Privately owned apartments for families to rent
- Hale's Apartments – Privately owned apartments for families to rent

Income-eligible residents in the Katahdin region are encouraged to work with the Maine State Housing Authority (MSHA) and town staff to provide technical assistance as needed.

Strategies and Policies

In order to meet the future needs of those living in the Katahdin region, local policies and implementation strategies have been developed in addition to the following state policies and implementation strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To encourage and promote adequate workforce housing to support the community's and region's economic development.
2. To ensure that land use controls encourage the development of quality affordable housing, including rental housing.
3. To encourage and support the efforts of the regional housing coalitions in addressing affordable and workforce housing needs.

Strategies:

Minimum strategies to meet state goals:

1. Maintain, enact or amend growth area land use regulations to increase density, decrease lot size, setbacks and road widths, or provide incentives such as density bonuses, to encourage the development of affordable and workforce housing.
2. Maintain, enact or amend ordinances to allow the addition of at least one accessory apartment per dwelling unit in growth areas, subject to site suitability.
3. Create or continue to support a community affordable and workforce housing committee and/or regional affordable housing coalition.
4. Designate a location(s) in growth areas where mobile home parks are allowed pursuant to 30-A M.R.S.A. §4358(3) (M) and where manufactured housing is allowed pursuant to 30-A M.R.S.A. §4358(2).
5. Support the efforts of local and regional housing coalitions in addressing affordable and workforce housing needs.
6. Seek to achieve a level of at least 20% of new residential development built or placed during the next decade be affordable.

Time Frame: Ongoing

Responsible Agent(s): Maine Housing Authority, East Millinocket, Millinocket, Medway.

Local

Millinocket

- 1. Policy:** The town continues to recognize the importance of developing strategies to increase the availability of safe, decent, and affordable housing for residents.

Strategies: The town will appoint a Housing Committee whose mission will be to evaluate housing alternatives and create a housing urbanization plan. In addition, the town will continue working with Northern Forest Center who is investing \$1 million to purchase and renovate existing houses and apartment buildings with the intent to create high-level rental units. These structures will be in close proximity to the downtown area, the re-commercialized mill site, and hospital.

Time Frame: Immediate.

Responsible Agent(s): Housing Committee, Planning Board, Town Manager, and Town Council
- 2. Policy:** The town will continue to enforce and implement applicable laws, codes, guidelines, and ordinances.

Strategies: The Code Enforcement Officer and the Plumbing Inspector will enforce and implement the Maine State Subdivision Law, the Maine State Plumbing Code, the National Electrical Code, Shoreland Zoning Ordinance, and duly approved municipal ordinances.

Time Frame: Immediate

Responsible Agent(s): Town Manager, Code Enforcement Officer, Plumbing Inspector, and Planning Board
- 3. Policy:** The town will develop strategies to address waiting lists for safe and affordable residences.

Strategies: Charge the newly created Housing Committee with the task of identifying solutions to reduce current waiting lists for residences for ownership or rental.

Time Frame: Immediate

Responsible Agents(s): The Housing Committee, Planning Board, local housing agencies such as Penquis, Town Manager, and Town Council

East Millinocket

- 1. Policy:** The Town will work towards development of a process to focus on housing needs and improvements to assist in achieving the goal of increased values.

Strategies: To evaluate the housing and develop a plan of renovation, demolition, and redevelopment for housing that will serve the needs of the citizens.

Time Frame: 2019 and ongoing

Responsible Agent(s): Administrative Assistant, Board of Selectmen, Code Enforcement, Planning Board and Potential Housing Committee

Medway

- 1. Policy:** The Town will work towards the development of a process to focus on housing needs and to assist in achieving the goal of increased values.

Strategies: To evaluate housing and develop a plan of renovation, demolition, and redevelopment for housing that will serve the needs of the citizens.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant, Board of Selectmen, Code Enforcement and Planning Board

CHAPTER TEN: RECREATION & TOURISM

Goals/Vision

State Goal

To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.

Local Goals

Millinocket

To promote and increase four season recreational opportunities available in Millinocket through planning and execution with local stakeholders.

East Millinocket

To maintain/ upgrade existing recreational facilities as necessary to meet current and future needs. To preserve open space for recreational use as appropriate. To seek to achieve or continue to maintain at least one major point of public access to major water bodies for boating, fishing, and swimming, and work with nearby property owners to address concerns.

Introduction

The towns of Millinocket, East Millinocket, and Medway recognize that recreation opportunities contribute to overall well-being and want to ensure that all citizens regardless of age, income, and motivation continue to enjoy recreation in their hometowns. However, these opportunities also represent a path towards a more diverse and resilient economy. Statewide, tourism sustains over 110,000 jobs – roughly 1 in 6 jobs in the state – and attracts more than 37 million visitors yearly, generating \$6.2 billion in sales and \$464 million in tax revenue to Maine’s economy in 2018.¹ This translates to \$1.6 billion in retail spending, \$3.4 billion in restaurant and lodging, \$572 million in transportation, and \$632 million in direct recreation spending.² However, Maine ranks 21st nationally with respect to per-capita tourism spending.³ Even within New England, Maine ranks below Vermont, Massachusetts, Connecticut, and New Hampshire, suggesting that there are opportunities to improve this figure.

The geographic location of these three communities allows citizens and visitors access to vast natural resources. During the Katahdin Gazetteer visioning process, recreation was identified as one of six *Big Ideas* for new economic opportunity. The goal: *to make the Katahdin region the premier four-season outdoor destination in New England*. With the creation of the Katahdin Woods and Waters National Monument in 2016, the region has seen increased attention from the state and the nation. To achieve the Katahdin Gazetteer’s goal, however, there needs to be further investment into existing assets such as Baxter

¹ <https://www.boothbayregister.com/article/maine-office-tourism-releases-economic-impact-figures-2018/116526> Accessed February 19, 2020.

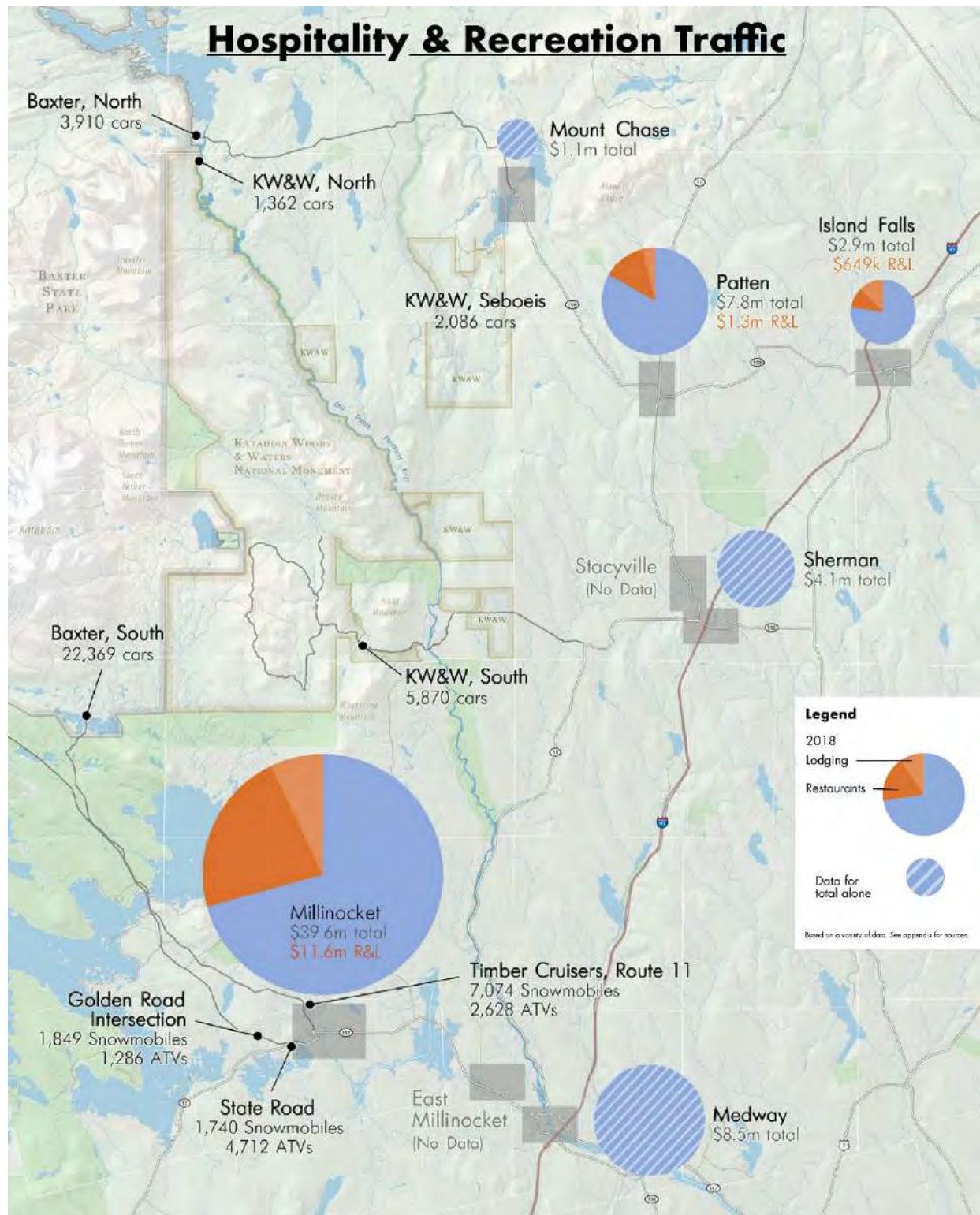
² https://motpartners.com/wp-content/uploads/2019/04/2018_MAINE_GovConf_HighlightSheet.pdf Accessed February 19, 2020.

³ <https://www.pressherald.com/interactive/compare-maines-tourism-spending/> Accessed February 19, 2020.

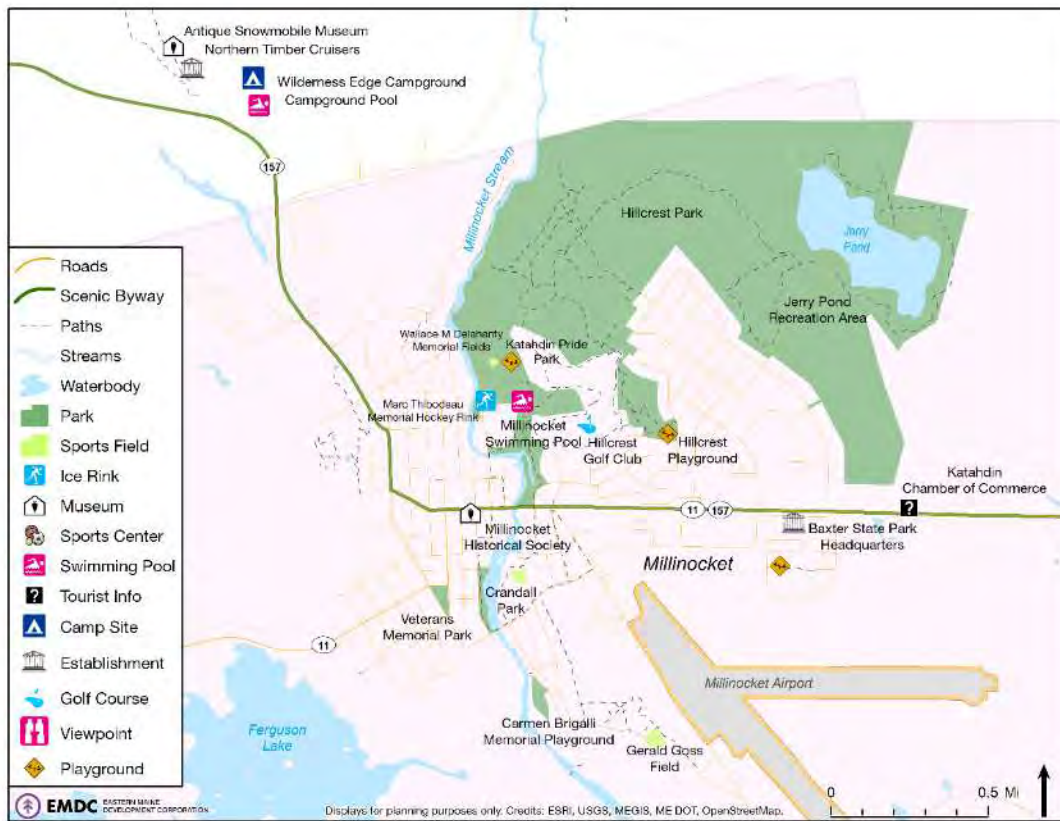
State Park, Katahdin Area and Penobscot River Trails, Debsconeag Lakes Wilderness Area, state conservation lands, privately owned timberlands, and snowmobile and ATV trails. Identifying opportunities to both strengthen existing resources and identify new opportunities will define the next decade in the Katahdin region.

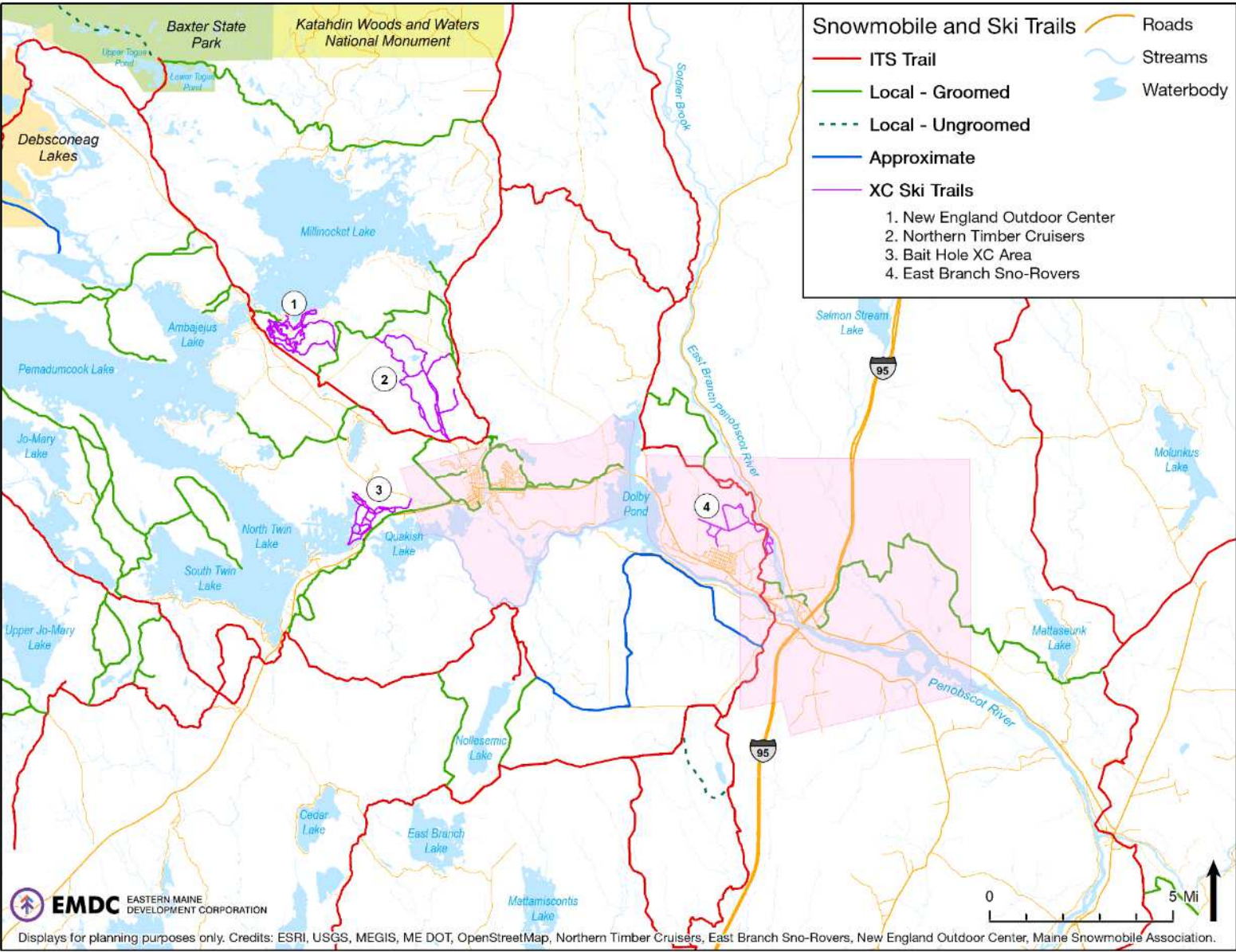
The following map – created for the Katahdin Gazetteer – identifies hospitality and recreation spending in the region for 2018. The map also notes car and other vehicle traffic, underscoring the importance of Millinocket, East Millinocket, and Medway to broader recreation opportunities region-wide.

Hospitality & Recreation Traffic



¹ Katahdin Gazetteer: A Roadmap to the Future, 2019. Page 36.





Inventory of Recreation Resources

Hiking and Biking Trails

There are many local and nearby opportunities for walking, hiking, and biking. An extensive network of maintained trails in Millinocket's Hillcrest Park and the Jerry Pond Recreation area connect to downtown. The Michael Michaud Walking and Biking Trail follows Millinocket Stream through the center of town. Nearby, trails at Bait Hole and Hammond Ridge offer year-round activities. As the northern terminus of the Appalachian Trail and a node in the International Appalachian Trail, Baxter State Park and Mount Katahdin connect trail networks as far south as Key West and as far north as Newfoundland. These trails pass through Katahdin Woods and Waters National Monument, Debsconeag Lakes Wilderness Area, Gulf Hagas, and Katahdin Iron Works. Traditional access to private lands in Millinocket, East Millinocket and Medway does not appear to be restricted.

Millinocket is working with Katahdin Area Trails (KAT) to expand multi-use trails both within and just outside the town. KAT has, with the assistance of grants and private funding, invested over \$400,000 to start the construction of a comprehensive trails system on Hammond Ridge, located just eight miles out of the town. KAT expects that this work will result in 16 miles of purpose built single-track mountain bike trails, in addition to 16 miles of existing ski trails and six miles of single-track trails. The Northern Border Regional Commission and Penobscot County also support these projects.

Snowmobiling

The Katahdin region has access to a network of 350 miles of groomed trails during the winter. These trails connect with the Interstate Trail System (ITS) and the Northeast Snowmobile Trail (NEST), extending as far as Pennsylvania and through to Canada. Several local snowmobiling organizations offer trail services, education, and community gatherings. These include the Northern Timber Cruisers, the East Branch Sno-Rovers, the Jo Mary Riders, and the Ebeemee Club.

The Towns of Millinocket, East Millinocket, and Medway are in the process of developing an east-west connector trail across Salmon Stream and on to the Mattawamkeag Trail network. This trail will connect to existing trails in Down East Washington County as well as onto the North-South corridor to Aroostook County. The Katahdin region is an important hub for fuel, food, and lodging for much of the region.

Snowshoeing and Cross Country Skiing

The Katahdin region boasts 45 miles of cross-country ski trails winding through the peaceful woods. Stunning views of Katahdin can be found around any corner while skiing these trails. Some trails are wooded and protected on windy days while others are open and scenic. There are groomed tracks for traditional style skiing as well as back country trails where you may be the first to make tracks through fresh snow.

The East Branch Sno-Rovers snowmobile club maintains several miles of trails in East Millinocket and Medway, while the Northern Timber Cruisers maintain trails just north of Millinocket. Katahdin Area Trails maintains several miles of groomed trails south of Millinocket in Bait Hole as well as a large complex of trails at the New England Outdoor Center on Hammond Ridge.

Camping

Several campgrounds are located within or near the Katahdin region, including: Katahdin Shadows Campground and Pine Grove Campground in Medway; Big Moose Inn, Cabins and Campground, North Country Rivers, and Wilderness Edge Campground in Millinocket; the New England Outdoor Center just north of Millinocket; and several camping areas at Baxter State Park, Katahdin Woods and Waters, Jo Mary Lake, and Debsconeag Lake Wilderness Area.

Boating

Millinocket sees approximately eight miles of the West Branch of the Penobscot River between Dolby Pond and Quakish Lake. The Dolby Pond boat ramp, located on Rice Farm Road northeast of Shad Pond, provides access to Dolby Pond and sections of the Penobscot River.

In East Millinocket, the former mill property and the Brookfield Dams impede access to the Penobscot River. However, there is a boat launch accessible through the paper mill property near the outfall of Spencer Brook Stream. This area between the Dolby Dam and the East Millinocket Dam provides excellent kayaking and canoeing opportunities. Public access should be addressed as the mill site is redeveloped.

Medway has approximately 12.5 miles of the Penobscot River running through its boundaries, of which 9.4 miles of the Penobscot River are directly accessible by boat from the towns' public boat landing located on Recreation Area Road. The remaining 3.1 miles, although not accessible by the public boat landing, but still accessible by other forms of recreational watercrafts such as canoes, kayaks, and white water rafts from various locations including along U.S. Route 11 and The Katahdin Woods and Water Scenic Byway. In order to ensure the long-term usage of boat launches and riverbank access points in the Katahdin Region, the maintenance and protection of these resources must be prioritized.

Fishing and Angling

Various bodies of water in the Katahdin Region offer fishing and angling opportunities to residents and visitors. In Millinocket, are Dolby Pond, Millinocket Stream, and Jerry Pond, which is stocked with Brook Trout annually by the Maine Department of Inland Fisheries and Wildlife.¹ Landlocked Salmon can be fished at Millinocket Lake, located in close proximity to Baxter State Park.

In Medway, Wassataquoik Stream, Telos Lake, and Chamberlain Lake provide fishing opportunities for Landlocked Salmon.² The Penobscot River, which connects Millinocket, East Millinocket and Medway, is home to a wide variety of fish species, including Smallmouth Bass, Brook Trout, and Wild Landlocked Salmon. Proper management of these water bodies will ensure their health and sustainability so that fishers and anglers can continue their sport in the region for years to come.

Public Parks

The Towns of Millinocket, East Millinocket and Medway combine resources and recreation departments to help develop, promote, and preserve public parks, open spaces, and recreation amenities. By ensuring access to these spaces, the public has somewhere to go when they want to enjoy the outdoors, hold special events, or mingle with their neighbors. Parks give children safe areas

¹ <https://millinocket.org/community/town-parks-and-trails/> Accessed October 30, 2020.

² <https://stepoutside.org/medway-me/fishing/> Accessed October 30, 2020.

to play, provide venues for social functions, and provide an aesthetically pleasing atmosphere. Additionally, proximity to park spaces generally increases nearby property values.¹ Currently, the towns' subdivision ordinances require open space for recreation and common use, equal to 10% of the land area in a 20-acre or 10-lot subdivision. Various local land trusts provide partnership opportunities for the acquisition of open spaces, including the Forest Society of Maine, Maine Audubon, Maine Farmland Trust, Maine Woodland Owners, New England Forestry Foundation, Northeast Wilderness Trust, The Conservation Fund, and the Trust for Public Land.

Golfing

The Katahdin Region has one golf course – Hillcrest Golf Club – located in the center of Millinocket. The course is a 9-hole course with sloping greens and hilly fairways. The course has exceptional views of Mt. Katahdin and hosts numerous tournaments throughout the season.

Four-Wheeling/ATV

The Katahdin Region Multi-Use Trail (KRMUT) has 16 miles of manicured trails linked to a statewide network of ATV trails. These trails offer scenic views of Jo-Mary Mountain and Mt. Katahdin, a suspension bridge spanning the West Branch of the Penobscot River, and access to the State of Maine Seboeis Unit-Public Reserve Lands. In addition to ATVs, the Multi-Use Trail is designed for mountain bikers, hikers, bird watchers, and cross-country skiers. A spur trail extends into downtown Millinocket offering riders access to restaurants, lodging, gas, groceries, and banks.

Other Events

The Millinocket Marathon and Half Marathon was started in 2015 and requires no entry fee. Attendees are encouraged to “generously support local businesses and contribute to the Katahdin Region in some way.”² In 2019, more than 2,300 runners registered and 1,459 runners completed one of the races, ending on Penobscot Avenue in Millinocket's downtown.³ Additionally, the event can qualify a runner for the US Olympic Trials and the Boston, New York City, and Chicago marathons.

¹ <https://www.nrpa.org/parks-recreation-magazine/2020/april/how-much-impact-do-parks-have-on-property-values/> Accessed March 29, 2020.

² <https://millinocketmarathon.com/> Accessed February 19, 2020.

³ <https://bangordailynews.com/2019/12/09/sports/running-sports/runners-amazed-how-millinocket-marathon-continues-to-draw-visitors-to-former-milltown/> Accessed February 19, 2020.

Notable Parties

Katahdin Chamber of Commerce

The Katahdin Chamber of Commerce helps promote the economic producing activities of the Towns of Millinocket, East Millinocket, and Medway. They offer services for residents, visitors, and business interests and serve to coordinate economic development efforts across the area.

Katahdin Regional Parks and Recreation

Katahdin Regional Parks and Recreation offers numerous programs and camps for youth during all four seasons. The Towns of Millinocket, East Millinocket and Medway collaborate to offer recreation additional programming for residents of all three towns.

Future Strategic Planning

Through the Gazetteer effort, the Katahdin region developed a practice for identifying and pursuing recreation and tourism opportunities:

1. Form a Katahdin Collaborative recreation workgroup focused on outdoor accessibility
2. Inventory recreation options in the region including professionally guided and self-guided opportunities
3. Integrate existing regional guides and materials to make it easier for visitors to know how to recreate respectfully
4. Continue and expand youth stewardship opportunities
5. Identify missing trail linkages in the region and develop plans to meet those needs
6. Create regional trail standards for motorized activities
7. Expand the trails in the region to connect with historic points of interest, scenic vistas, and village centers
8. Fortify stewardship and maintenance programs
9. Promote in town water recreation along Millinocket Stream
10. Conduct a wayfinding study with Northern Forest Center for motorized, non-motorized, and pedestrian signage
11. Improve and expand hiking and biking trails

Since the Katahdin Gazetteer was published in early 2019, many of these goals are met or well underway. The Katahdin Collaborative Recreation Workgroup has been established, and work on the trails has been bolstered with recent grant funding from the Northern Border Regional Commission.

Strategies & Policies

In order to promote, protect, and increase recreational opportunities as well as maintain and upgrade recreational facilities in the Katahdin Region, local policies and implementation strategies have been developed in addition to the following state implementation strategies and policies:

State of Maine

Policies:

Minimum policies required to address state goals:

1. To maintain/ upgrade existing recreational facilities as necessary to meet current and future needs.
2. To preserve open space for recreational use as appropriate.
3. To seek to achieve or continue to maintain at least one major point of public access to major water bodies for boating, fishing, and swimming, and work with nearby property owners to address concerns.

Strategies:

Minimum strategies to meet state goals:

1. Create a list of recreation needs or develop a recreation plan to meet current and future needs. Assign a committee or community official to explore ways of addressing the identified needs and/or implementing the policies and strategies outlined in the plan.
2. Work with public and private partners to extend and maintain a network of trails for motorized and non-motorized uses. Connect with regional trail systems where possible.
3. Work with an existing local land trust or other conservation organizations to pursue opportunities to protect important open spaces or recreational land.
4. Provide educational materials regarding the benefits and protections for landowners allowing public recreational access on their property. At a minimum this will include information on Maine's landowner liability law regarding recreational or harvesting use, Title 14, M.R.S.A. §159-A.

Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket, Millinocket, Katahdin Region Chamber of Commerce.

Local

Millinocket

Policies:

Minimum policies required to address state goals:

1. To maintain/ upgrade existing recreational facilities as necessary to meet current and future needs.
2. To preserve open space for recreational use as appropriate.
3. To seek to achieve or continue to maintain at least one major point of public access to major water bodies for boating, fishing, and swimming, and work with nearby property owners to address concerns.

Strategies:

Minimum strategies to meet state goals:

1. Create a list of recreation needs or develop a recreation plan to meet current and future needs Assign a committee or community official to explore ways of addressing the identified needs and/or implementing the policies and strategies outlined in the plan.
2. Work with public and private partners to extend and maintain a network of trails for motorized and non-motorized uses. Connect with regional trail systems where possible.
3. Work with an existing local land trust or other conservation organizations to pursue opportunities to protect important open spaces or recreational land.
4. Provide educational materials regarding the benefits and protections for landowners allowing public recreational access on their property. At a minimum this will include information on Maine's landowner liability law regarding recreational or harvesting use, Title 14, M.R.S.A. §159-A.

Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket, Millinocket, Katahdin Region Chamber of Commerce

East Millinocket

1. **Policy:** To maintain, improve, expand and create existing and new recreational facilities to serve the public into the future.

Strategies: To build upon the Katahdin Gazetteer to ensure improvements are made in keeping with the overall regional goals and strategies.

Time Frame: Continuous

Responsible Agent(s): Town of East Millinocket and appropriate local, regional and state organizations.

2. **Policy:** To maintain, improve, expand and create existing and new multi-use recreational trails connecting to other regional trails to promote economic growth in the recreational industries and outdoor opportunities.

Strategies: To work collaboratively with landowners and various groups involved in recreation trails.

Time Frame: Continuous

Responsible Agent(s): Town of East Millinocket, East Branch Sno-Rovers and ATV club, other similar regional and state groups.

Medway

1. **Policy:** Maintain and upgrade existing recreational facilities and parks as necessary to meet present and future needs.

Strategies: Medway Town Authorities and Recreation Department continue to budget for repairs & maintenance and transfer recreational budget surplus to reserve for recreational capital improvements.

Time Frame: Ongoing

Responsible Agent(s): Town Officials and Recreation Department

2. **Policy:** Maintain and upgrade existing trails, while continuing to expand the network for present and future needs.

Strategies: To go along with the maintenance of existing infrastructure, create a system of cross country trails, as well as new ATV trails and open access to all Medway streets for ATV usage.

Time Frame: Ongoing

Responsible Agent(s): East Branch Snow Rovers & Medway Town Officials

3. **Policy:** Create new entertainment opportunities for the Katahdin Region.

Strategies: Develop an outdoor venue for the multi-purpose of concerts, festivals, and performing art events.

Time Frame: Ongoing

Responsible Agent(s): Recreational Department

CHAPTER ELEVEN:

TRANSPORTATION

Goals/Vision

State Goal

To plan for, finance, and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Local Goals

Millinocket

To provide transportation infrastructure and services in a cost-effective and efficient manner, making the best use of available resources. To assure that improvements to existing infrastructure support economic development strategies, business retention, and growth. To support planning for maximum use of recreational trails and paths.

East Millinocket

To focus on state efforts for road improvement and to be an active participant in pre-planning stages ensuring that local input is considered. To assist in the needs of the owners of Canadian Pacific Railways as they plan their future needs. To evaluate local roads and to develop a 10-year plan of action for continued improvement to road surfaces and to consider infrastructure beneath the roadways. To support multi-use trails alongside road redevelopments and reconstructions that will encourage full 4-season tourist opportunities. To work with state, county, and federal departments to design additional allowances for ATV and snowmobile use.

Medway

To provide and support multi-use trails alongside Medway Streets and roads to allow access points for snowmobiles, ATVs, bicycles, etc. To work with Maine DOT to promote and design additional paths and trails for ATV, bicycle, and snowmobile access along Routes 157 and 11.

Introduction

Transportation infrastructure includes highways and roads as well as aviation, mass transit, passenger and freight rail, ferries and marine terminals, and active transportation such as bike paths and sidewalks. Towns depend on well-maintained transportation resources that affect property values, the productivity of downtown and village areas, tourist activity, and the overall safety and convenience of a community.

Transportation is also closely linked to land use and housing. Historic transportation patterns can be divined from the built environment, often visible for centuries. Prior to the spread of the railroad, much traffic into and out of the Katahdin region utilized the Penobscot River, thus development was clustered around the river and auxiliary canals. Local roads provided access to many inland areas, but transportation over land was slow and expensive. The construction of the Bangor and Aroostook Railroad in 1894 allowed for large-scale industrial activity in the Great Northern Paper Company and

consequent manufacture of local housing near the mill.¹ These railroad-era communities tend to have dense neighborhoods and narrow, interconnected streets.

With the invention and popularity of the automobile and of highway transit, dramatic changes arrived in the communities of Millinocket, East Millinocket, and Medway. The predominance of the automobile eclipsed rail transit, opening many highway-adjacent communities to suburban development dependent on car ownership. This new pattern of highway-centric development was enabled, in part, by the passage of the Federal Highway Act (FHA) in 1956. The first section of the Maine Turnpike opened in 1947 and it was completed in 1981.² Extensions in the 1970s and 1980s prompted housing starts in Medway and nearby.

Many communities, however, lamented the negative consequences of this new development pattern. Sprawl began consuming rural landscapes, traffic and exhaust fumes marred quiet neighborhoods, automobile-related fatalities skyrocketed, and downtowns began to crumble. Funding structures within the FHA prevented investment in transit services, exacerbating urban blight. The Federal government passed the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 steering transportation planning towards community-based solutions for all modes of transportation.³ Also in 1991, Maine passed the Sensible Transportation Policy Act (Title 23 §73), providing an avenue for community input in transportation improvements and repairs.⁴

Many now recognize the importance of comprehensive transportation planning and the interconnections between housing, economy, land use, and transportation. Despite the differing settlement patterns in Millinocket, East Millinocket, and Medway, local road design standards reflect the region's shared desire to meet the needs of its residents.

Regional Transportation Concerns

Between April-July 2019, Thrive Penobscot⁵, an initiative based out of Millinocket Regional Hospital, administered the Katahdin Region Transportation Survey. In the report that followed, various transportation system concerns emerged. Regional transportation system concerns include the affordability of personal vehicles and taxis and the limited availability of public transportation. These survey results indicate areas of improvement and transportation needs for the region to address. In March 2020, a new group called Mobilize Katahdin⁶ was formed to build a local volunteer transportation program for the Katahdin region. Continued efforts from groups like Thrive Penobscot and Mobilize Katahdin will contribute to the region's future transportation solutions.

Commuting Characteristics

In many rural states, typical transportation options are limited to cars, trucks, and vans. Compared to the state, the Katahdin region has higher rates of individuals walking to work – 5.3% compared to 3.9% – and of working at home – 7.0% compared to 5.8%. As would be expected due to its size and

¹ <https://millinocket.org/visitors/history/> Accessed January 8, 2020.

² <https://www.maineturnpike.com/About-MTA/History.aspx> Accessed January 8, 2020.

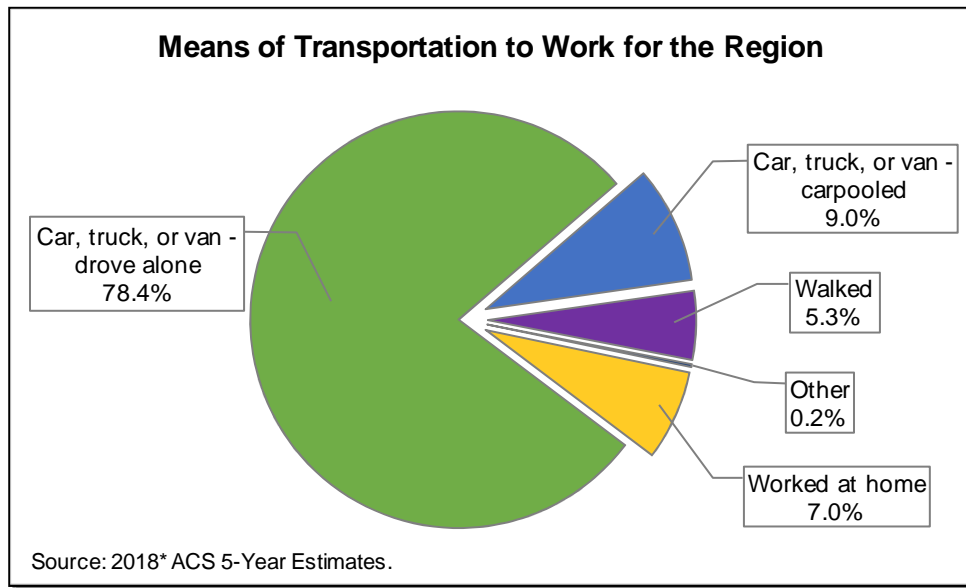
³ https://www.fhwa.dot.gov/planning/public_involvement/archive/legislation/istea.cfm Accessed January 8, 2020.

⁴ <https://www.maine.gov/mdot/about/history/> Accessed January 8, 2020.

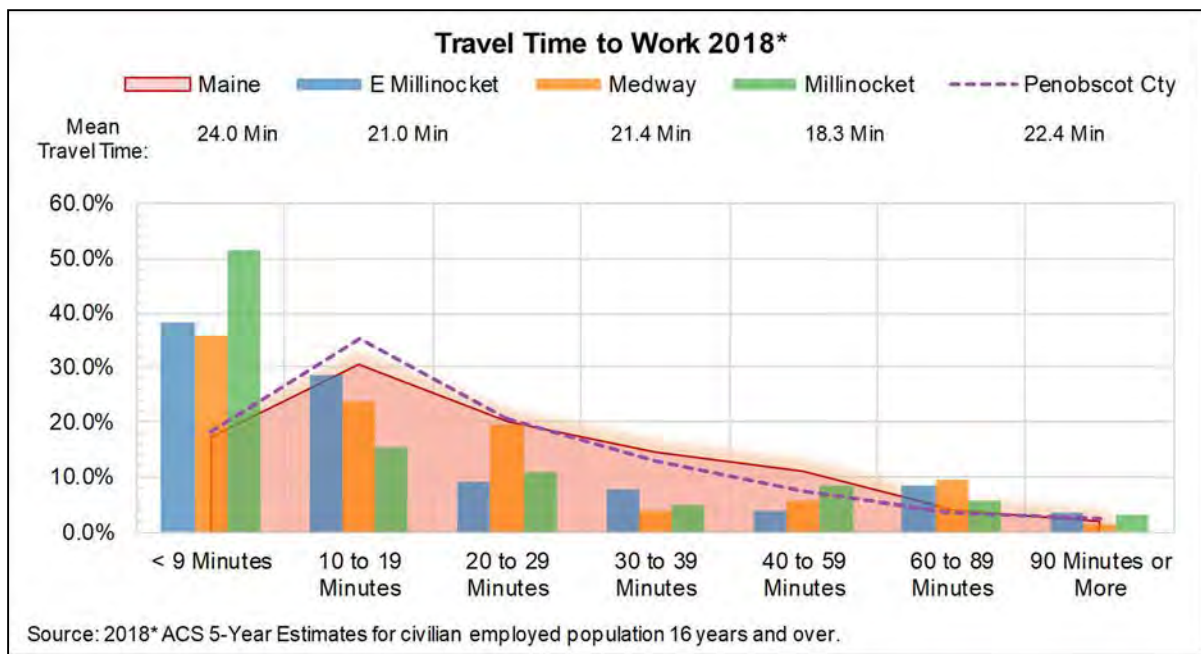
⁵ <https://thrivepenobscot.org/>

⁶ <http://mobilizekatahdin.org/>

population distribution, only 4.5% of Medway residents walked to work. In the sample period, 87.1% of individuals commuted to work by passenger vehicle.



The majority of Katahdin region residents enjoy shorter one-way commutes. Compared to a statewide commute of 24.0 minutes, the region saves approximately 3.8 minutes on average. 46.1% of residents commuted for less than twenty minutes each day, compared to 17.4% across the state and 18.0% across the county.



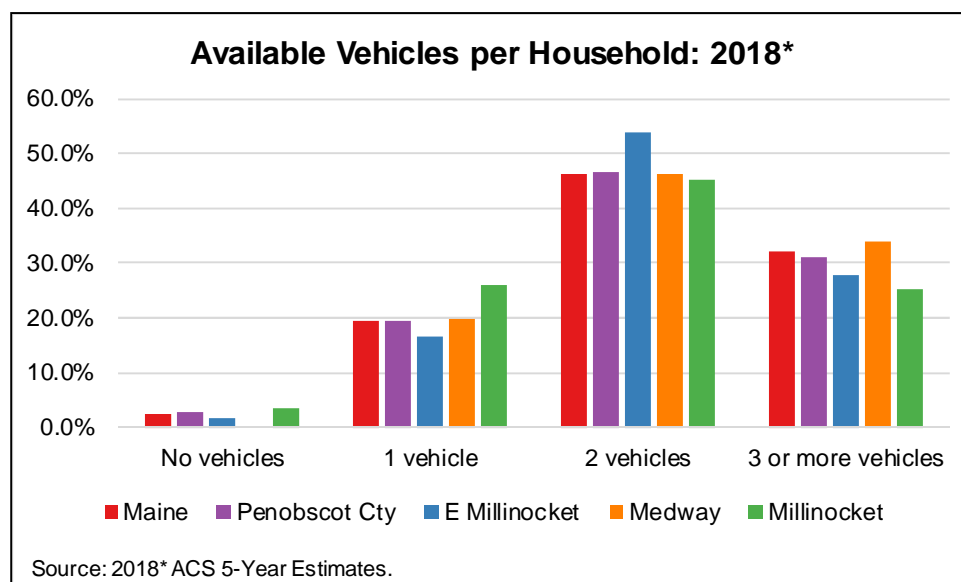
The short commutes of Katahdin region residents is likely due to the clustering of services and work in the towns of Millinocket, East Millinocket, and Medway. Census data suggests that a higher rate of individuals across Penobscot County work within their county of residence – 90.5% compared to 76.9% statewide. It is important to note that the below table includes counts of those residing in Census-designated places (CDP), which are smaller areas within town boundaries. As such, 0% of Medway residents live in a CDP because there is no designated CDP within Medway’s boundaries.

For the towns of Millinocket and East Millinocket, the rates for individuals working in their place of residence are higher than state and county averages.

Place of Work: 2018*					
	Maine	Penobscot Cty	E Millinocket	Medway	Millinocket
Worked in state of residence	95.7%	99.0%	98.9%	91.3%	97.0%
Worked in county of residence	76.9%	90.5%	93.3%	90.3%	96.2%
Worked outside county of residence	18.8%	8.5%	5.6%	1.0%	0.8%
Worked outside state of residence	4.3%	1.0%	1.1%	8.7%	3.0%
Living in a Census-designated place	46.6%	51.4%	98.5%	0.0%	100.0%
Worked in place of residence	19.0%	23.7%	30.6%	0.0%	62.6%
Worked outside place of residence	27.5%	27.7%	67.9%	0.0%	37.4%
Not living in a Census-designated place	53.4%	48.6%	1.5%	100.0%	0.0%
Workers 16 years and over	651,799	71,260	611	381	1,705
Did not work at home	614,274	68,289	574	377	1,558
Worked at home	37,525	2,971	37	4	147

Source: 2018* ACS 5-Year Estimates.

As many rural transportation systems rely on passenger vehicles, availability and access are important measures of mobility. This is especially true where two-earner households must commute individually to work. A lack of vehicle availability may affect economic, education, and social outcomes.



Classification of Infrastructure

The Katahdin region is home to over 110 miles of road all with Maine DOT Region 5. This infrastructure is generally described by function – the service it provides – and by jurisdiction – who pays for the roads. Federal function classifications group roads into one of three broad categories:

- Arterials and Interstates serve to move traffic across counties, the state, and between states. These roads typically have high speeds and high traffic volumes;

- Collectors link smaller networks to the arterial system. These are distinguished between urban and rural collectors, and rural roads are distinguished further as either major or minor collectors;
- Local roads provide access to residential areas, commercial areas, agricultural and natural service areas.

The Katahdin region has 61.3 miles of local roads (56%), 21.25 miles of collector roads (19.4%), and 10.9 miles of arterial roads (10.0%). A useful measure of a road's overall volume takes advantage of the Average Annual Daily Traffic (AADT). This is calculated by estimating the total yearly traffic a section of road experiences and dividing it by 365 to obtain a daily volume total. Multiplying this value by the road's length generates the Vehicle Miles of Travel (VMT), useful in calculating the overall use of a road segment. In the region, 10.2% of VMT is on local roads, 15.9% is on collector roads, and 73.9% is on arterial roads.

The state distinguishes between local and state jurisdiction:

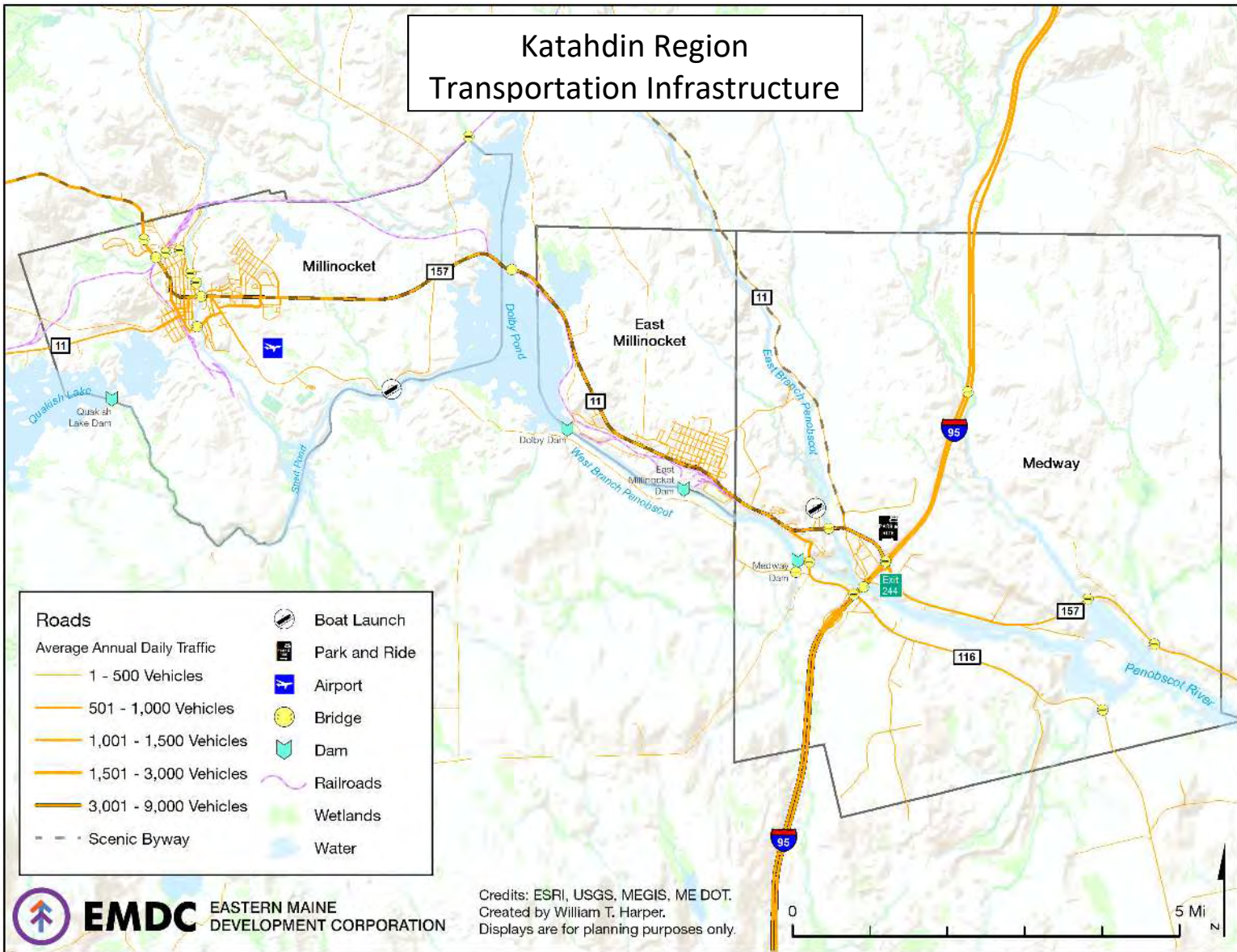
- A state highway connects routes throughout the state, serving both intra- and inter-state traffic. The Maine DOT generally maintains these roads;¹
- State aid highways connect local roads to the state highway system, serving intra-county, rather than intra-state traffic. These roads are maintained by the Maine DOT in the summer and by local municipalities in the winter;
- Town ways are all other routes not designated as state highways or state aid highways.

The Katahdin region has 60.2 miles of town ways (54.9%), 33.3 miles of state highway (30.4%), and 15.0 miles of state aid highway (13.7%). Of these roads, 9.7% of VMT is on town ways and summer town ways, 78.6% of VMT is on state highways, and 11.3% of VMT is on state aid highways.

¹ <https://www1.maine.gov/mdot/csd/docs/roadwayinfo/RoadClassification.pdf> Accessed January 12, 2020.

Average Annual Daily Traffic and Vehicle Miles Traveled						
East Millinocket	Count	Miles	% Miles	AADT	VMT	% VMT
Function						
Local	161	13.50	74.5%	41,881	2,810.1	11.7%
Major Collector	0	0.00	0.0%	-	-	0.0%
Minor Collector	1	0.43	2.4%	360	154.3	0.6%
Minor Arterial	35	4.19	23.1%	171,935	21,082.2	87.7%
Interstate	0	0.00	0.0%	-	-	0.0%
Jurisdiction						
Townway	160	13.50	74.5%	40,395	2,800.5	11.6%
Summer Townway	0	0.00	0.0%	-	-	0.0%
State Highway	35	4.19	23.1%	171,935	21,082.2	87.7%
State Aid Highway	1	0.43	2.4%	360	154.3	0.6%
Other	1	0.01	0.0%	1,486	9.6	0.0%
TOTAL	197	18.13		214,176	24,046.6	
Medway	Count	Miles	% Miles	AADT	VMT	% VMT
Function						
Local	75	18.09	35.4%	10,390	3,067.9	4.4%
Major Collector	44	10.73	21.0%	53,374	10,443.3	14.8%
Minor Collector	6	3.95	7.7%	3,130	1,589.4	2.3%
Minor Arterial	23	2.25	4.4%	129,239	13,181.5	18.7%
Interstate	69	16.06	31.4%	165,396	42,208.1	59.9%
Jurisdiction						
Townway	66	16.70	32.7%	7,988	2,489.7	3.5%
Summer Townway	1	0.20	0.4%	88	17.4	0.0%
State Highway	112	23.36	45.7%	322,813	60,646.9	86.0%
State Aid Highway	30	9.63	18.9%	28,326	6,775.5	9.6%
Other	8	1.19	2.3%	2,314	560.8	0.8%
TOTAL	217	51.08		361,529	70,490.3	
Millinocket	Count	Miles	% Miles	AADT	VMT	% VMT
Function						
Local	299	29.75	73.7%	77,795	7,813.4	19.5%
Major Collector	75	6.13	15.2%	131,542	9,281.2	23.1%
Minor Collector	0	0.00	0.0%	-	-	0.0%
Minor Arterial	39	4.49	11.1%	235,339	23,045.0	57.4%
Interstate	0	0.00	0.0%	-	-	0.0%
Jurisdiction						
Townway	299	29.75	73.7%	77,795	7,813.4	19.5%
Summer Townway	0	0.00	0.0%	-	-	0.0%
State Highway	43	5.72	14.2%	238,659	24,067.9	60.0%
State Aid Highway	71	4.90	12.1%	128,222	8,258.3	20.6%
Other	0	0.00	0.0%	-	-	0.0%
TOTAL	413	40.37		444,676	40,139.6	
Source: Maine DOT 2019 Public Roads Data						

Katahdin Region Transportation Infrastructure

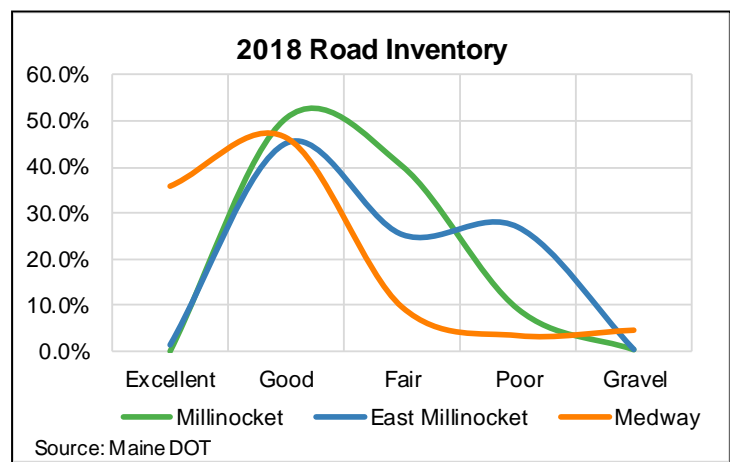


Inventory of Roads

Road conditions are relevant to the quality of the ride experience, the safety of passengers as well as pedestrians and cyclists, the reliability of bridges and culverts, and commute times and congestion. The Maine DOT provides three indexed ratings for critical roads measuring service, safety, and condition.¹ Some items are letter grades, while others – such as road width – are pass or fail. Of the roads evaluated by the Maine DOT Customer Service Level (CSL) assessment, 43% received an A, 17% received a B, 12% a C, 6% a D, and 9% an F. An additional 10% received a Pass and 4% received a Fail. Overall, these metrics are useful in targeting deficiencies and addressing complaints.

2018 Road Inventory			
Millinocket			
	Count	Miles	%
Excellent	0	0.0	0.0%
Good	52	20.1	50.4%
Fair	51	16.0	40.1%
Poor	14	3.7	9.1%
Gravel	2	0.2	0.4%
East Millinocket			
	Count	Miles	%
Excellent	1	0.3	1.7%
Good	9	7.6	45.2%
Fair	16	4.3	25.5%
Poor	9	4.6	27.1%
Gravel	1	0.1	0.7%
Medway			
	Count	Miles	%
Excellent	3	14.6	35.9%
Good	23	18.9	46.6%
Fair	7	3.9	9.6%
Poor	1	1.4	3.4%
Gravel	7	1.9	4.6%

Source: Maine DOT.



¹ <https://www.maine.gov/mdot/docs/2016/roadsreport2016.pdf> Accessed January 12, 2020.

Customer Service Level Road Conditions: 2018														
Street Name	Town	Length (Miles)	Service Score	Congestion	Safety Score	Crash History	Rutting	Width	Bridge Reliability	Condition Score	Pavement Cond	Ride Quality	Roadway Strength	Bridge Condition
MAIN ST	East Millinocket	3.99	A	A	B	A	A	FAIL		B	B	B	A	
OLD MAIN ST	East Millinocket	0.19	A	A	B	A		FAIL						
RD INV 3209528	East Millinocket	0.01	A	A				PASS						
GRINDSTONE RD	Medway	4.38	C	A	F	F	A	FAIL		B		B		
I 95 NB	Medway	12.27	A	A	D	D	B	PASS		C	C	C		C
I 95 SB	Medway	12.38	A	A	D	D	B	PASS		C	C	C		C
MEDWAY RD (East)	Medway	4.97	A	A	B	A	A	FAIL		C	B	B	B	C
MEDWAY RD (West)	Medway	2.33	A	A	B	B	B	PASS		B	B	B	B	B
MEDWAY REST AREA RAMP	Medway	0.29	A	A				PASS						
PATTAGUMPUS RD	Medway	5.68	C	A	C	B	A	FAIL		B		B		A
RAMP A ON FROM ROUTE 157	Medway	0.28	A	A				PASS						
RAMP B OFF TO ROUTE 157	Medway	0.26	A	A				PASS						
RAMP C ON FROM ROUTE 157	Medway	0.30	A	A				PASS						
RAMP D OFF TO ROUTE 157	Medway	0.26	A	A				PASS						
RD INV 3201747	Medway	0.02	A	A				PASS						
RD INV 3201915	Medway	0.02	A	A				PASS						
RD INV 3201916	Medway	0.02	A	A				PASS						
AROOSTOOK AV	Millinocket	0.28	A	A	A	A	A	PASS		D		D		
BATES ST	Millinocket	0.83	A	A	F	A	A	PASS	F	F		F		F
BIRCH ST	Millinocket	0.05	A	A	A	A	A	PASS		F		F		
CENTRAL ST	Millinocket	4.49	B	B	D	C	B	FAIL		D	D	C	B	A
CHERRY ST	Millinocket	0.09	A	A	A	A	A	PASS		F		F		
GRANITE ST	Millinocket	0.40	A	A	F	A	A	FAIL	F	F		F		A
KATAHDIN AV	Millinocket	0.77	A	A	B	B	A	PASS		F	F	C	B	
MEDWAY RD	Millinocket	0.85	A	A	A	A	A	PASS		B		B		
PENOBSCOT AV	Millinocket	0.35	A	A	B	B	A	PASS		C		C		
POPLAR ST	Millinocket	1.84	A	A	D	C	B	FAIL		F	F	C	A	
SECOND ST	Millinocket	0.08	A							A				A
STATE ST	Millinocket	0.19	A							C				C
SYCAMORE ST	Millinocket	0.12	A	A	A	A	A	PASS		C		C		
WASSAU ST	Millinocket	0.54	A	A	C	C	A	PASS		D		D		
Totals and Averages		58.54	A	A	C	B	A			C	C	C	B	B
Source: Maine DOT Customer Service Level Data. Road segments have been aggregated and retain lowest category rating.														

A further assessment of the region's roads found that, overall, quality was generally *good* – 47.9% of roads – to *fair* – 24.8% of roads. It is important to note that the CSL and Inventory condition assessments are not comprehensive and do not cover all segments of roads.

Bridge Structures

Inventory of Bridges

Provided below is a summary of Katahdin area bridges and an assessment of their current condition. Conditions are measured as 9 being the best and 3 being the worst, while still passable.

Bridge Name	Bridge No.	Owner	Year Built	Condition			Inspection
				Deck	Super-structure	Sub-structure	
Smith Brook	5827	MDOT	1936	4	4	3	4/26/2017
Station Rd Culvert	5684	Millinocket	1936	4	4	5	2/1/2017
B&ARR/ BATES ST RR#104.64	3277	Railroad	1936	n/a	n/a	5	7/14/2016
Schoodic	2747	MDOT	2017	9	9	9	1/11/2018
Millinocket	2570	MDOT	1991	7	8	7	7/14/2016
Second Street	914	MDOT	1964	7	7	7	7/14/2016
State Street	909	MDOT	1950	7	4	5	7/14/2016
Granite Street	902	MDOT	1937	6	6	6	7/14/2016
Nicatou Bridge	818	MDOT	1997	7	8	7	9/5/2017
Rockabema Stream	880	Medway	1965	6	6	6	2/10/2017
I95 SB / Salmon Stream	1409	MDOT	1976	6	6	7	11/28/2016
Vaughn Daggett Mem SB	1410	MDOT	1966	6	6	6	10/26/2016
I95 SB / Route 116	1411	MDOT	1966	6	6	6	11/28/2016
East Branch Penobscot RV	2256	MDOT	1999	7	8	6	11/27/2017
Salmon Stream	2738	MDOT	1939	6	6	5	9/6/2016
Penobscot	3009	MDOT	2008	8	8	8	11/27/2017
I95 NB / Route 116	6007	MDOT	1966	5	6	6	11/28/2016
Vaughn Daggett Mem NB	6078	MDOT	1966	6	7	6	10/26/2016
RTE 157 / I95 Interchange	6141	MDOT	1966	5	7	7	11/27/2017
I95 NB over Salmon Stream	6164	MDOT	1966	7	6	6	11/28/2016

To ensure the sufficient replacement and improvement of aquatic organism passage during road construction and maintenance, municipalities in the Katahdin region will consult with State agencies (i.e. U.S. Forest Service, Maine Department of Inland Fisheries and Wildlife, etc.) for recommendations.

Inventory of Culverts maintained by MEDOT

Culvert Name	Culvert No.	Owner	Year Built	Condition			Inspection
				Culvert	Channel	Approach	
Penobscot Ave (Culvert)	906	Millinocket	1970	3	6	4	4/26/2017
Little Smith Brook	905	Millinocket	1919	5	6	4	2/10/2017
Granite Street	902	MDOT	1937	7	7	4	7/14/2016
Little Salmon Stream	2471	MDOT	1940	6	8	8	10/24/2017

Public Transportation

Bus and Shuttle Services

Cyr Bus Line¹

The Cyr Bus Line's daily service from Bangor and points north helps connect the communities of East Millinocket, Millinocket, and Medway to the metropolitan area of Bangor, Maine. Once in Bangor, residents can connect to the Greyhound or Concord Bus Services (southbound), the Bangor International Airport, and the metropolitan public bus services Community Connector.

Penquis Transportation Services²

Penquis is a nonprofit organization that provides transportation services to every town in Penobscot County at least one day per week. Transportation services are available for the general public as well as veterans, seniors, low-income individuals, people with disabilities or mental health diagnoses, those needing cancer or dialysis treatments, and individuals with low-income. For qualifying individuals, trips are a small cost or free. Through Lynx Mobility Services, volunteer drivers and regional bus services provide rides to MaineCare appointments for eligible individuals. General public transportation for shopping, medical appointments, work and volunteering, recreation and entertainment, and visits to family and friends is available at least one day per week. Reservations are required for these services and must be made two full business days in advance.

Pamola Shuttle³

Pamola Shuttle provides taxi and shuttle services for the Katahdin region. The shuttle is available daily from 7:30am-2:00am and before 7:30am by appointment only.

Mobilize Katahdin - Volunteer Driver Program⁴

Mobilize Katahdin, a coalition of individuals and partner organizations led by the Millinocket Memorial Library, is currently working on establishing a volunteer driver program in collaboration with Age-Friendly Millinocket. Volunteer drivers will be recruited, trained, and dispatched throughout the Katahdin region. Additionally, Mobilize Katahdin helps coordinate and advocate on behalf of transportation dependent individuals for accessible transportation options in cooperation with regional providers.

Bicycle and Sidewalk Infrastructure

Michael Michaud Walking and Biking Trail⁵

Neither community has designated bicycle lanes, but the town of Millinocket has the Michael Michaud Walking and Biking Trail. The trail is an easy 1.6-mile paved loop starting at Crandall Park and following along the Millinocket Stream into residential neighborhoods throughout downtown Millinocket.

¹ <https://johnncyrandsons.com/> Accessed January 7, 2021.

² <https://www.penquis.org/services/transportation/> Accessed January 7, 2021.

³ <https://thrivepenobscot.org/services/transportation/> Accessed January 7, 2021.

⁴ <http://mobilizekatahdin.org/> Accessed January 7, 2021.

⁵ <https://millinocket.org/government/recreation-department/> Accessed January 7, 2021.

Sidewalks

Sidewalks and pedestrian crossings in residential areas and the downtown commercial area are maintained annually by the Department of Public Works. A completed Community Development Block Grant (CDBG) program from the early 1990s restored many sidewalks in each community's downtown, with maintenance provided by those communities. All of these sidewalks are in good condition.

Sidewalks are important to maintain the quality of life and to support walkable community designations. They provide access to commercial and residential areas, recreational opportunities, and are an important safety feature of any heavily used roadway.

Waterways

Millinocket sees approximately eight miles of the West Branch of the Penobscot River between Dolby Pond and Quakish Lake. The Dolby Pond boat ramp, located on Rice Farm Road northeast of Shad Pond, provides access to Dolby Pond and sections of the Penobscot River. In East Millinocket, the former mill property and the Brookfield Dams impede access to the Penobscot River. However, there is a boat launch accessible through the paper mill property near the outfall of Spencer Brook Stream. This area between the Dolby Dam and the East Millinocket Dam provides excellent kayaking and canoeing opportunities. Public access should be addressed as the mill site is redeveloped. Medway has approximately 12.5 miles of the Penobscot River running through its boundaries, of which 9.4 miles of the Penobscot River are directly accessible by boat from the town's public boat landing located on Recreation Area Road. The remaining 3.1 miles, although not accessible by the public boat landing, are still accessible by other forms of recreational watercrafts such as canoes, kayaks, and white water rafts from various locations including along U.S. Route 11 and The Katahdin Woods and Water Scenic Byway.

Railways

East Millinocket, Millinocket, and Medway's access to railway service is vital to growing the region's economic health. The railway's presence will be a key selling point for industries and businesses considering locating to the region. Demand for freight rail is expected to increase as pressures on transportation labor availability, trucking regulations and pricing, and increasingly standardized rail infrastructure increases its competitiveness in North America.¹

Canadian Pacific Railway maintains a station, yard, and extensive lines to both former paper mills in Millinocket and East Millinocket. Freight services are provided via 492 track miles stretching across Maine, Vermont, and Quebec. Interchanges with other rail carriers allow CP Railway to move goods to and from New England, New Brunswick and Quebec. Central Maine and Quebec Railway was launched in 2014 and invested more than \$50 million in both direct capital and grant funds, leading to 64 miles of new rail installation and the acquisition of modern, high-horsepower, AC-traction locomotives for increased power and reliability. CMQ was purchased in 2019 by Canadian Pacific in an effort to consolidate Canadian rail connections across North America.²

¹ <https://www.mckinsey.com/industries/travel-transport-and-logistics/our-insights/getting-freight-back-on-track#> Accessed January 12, 2020.

² <https://bangordailynews.com/2019/11/25/news/bangor/what-the-sale-of-almost-400-miles-of-train-track-will-mean-for-maine/> Accessed January 12, 2020.

Airways

The Millinocket Municipal Airport – built in 1938 and located at 16 Medway Road – serves the towns of East Millinocket, Millinocket, and Medway. The current configuration includes two runways with a main terminal, three municipally owned hangers and three privately owned hangers, and thirteen tie-downs. Runway 11-29 is 4,713 feet long and has pilot controlled lighting; runway 16-34 is 4,007 feet long and, while unplowed in the winter, remains accessible to aircraft using skis.

The airport's operational hours are from 8 am to 5 pm or later, 7 days a week throughout the summer. During the winter months, the airport operates 8am to 5 pm only Monday through Friday. The airport has one to two attendants at any given time and offers aviation fuels, oils, filters, and pilot supplies including maps and charts. The airport also offers a car rental service.

In 2018, a new snow removal equipment (SRE) building was erected and taxies were repaired. The town is currently seeking grant opportunities to refurbish the runways.

Pipelines

Currently, there are no fuel pipelines in the three towns. However, each municipality has adequate water, sewer, and stormwater lines within their respective boundaries. East Millinocket has a leachate pipeline from the State owned landfill extending from Route 157 to the East Millinocket site.

Planned Capital and Maintenance Work

Much of Maine's transportation infrastructure is aging and in poor repair. A 2018 CNBC study of the nation's infrastructure as it pertains to commerce and business found that Maine ranked third worst, finding that 13.3% of bridges were deficient and 53% of roads are in poor or mediocre condition.¹ 73% of commercial goods in Maine are shipped by trucks on the state's highways, and a further 17% are delivered by parcel services.² Vehicle travel in Maine increased by 4% between 2000 and 2017 – slower than the national average, but still straining our existing roadways.³ All of these deficiencies cost Maine motorists approximately \$541 million every year in extra vehicle operating costs, such as added repairs and wasted gasoline.

The Brookings Institute found that between 2007 and 2017, national spending on transportation infrastructure fell by \$4.2 billion.⁴ State expenditure, however, accounts for 77.7% of all public infrastructure spending.⁵ The Maine Department of Transportation has outlined \$2.59 billion in spending for 2,051 individual projects for the years 2018, 2019, and 2020.⁶ This budget is composed of federal and state sources, supplemented by \$109 million in matching municipal funds. Nevertheless, the DOT estimates a shortfall of \$232 million. Because transportation is such a crucial part of local and regional function, towns and municipalities are accountable for the many infrastructure needs unmet by state DOTs. Local governments spend approximately 4% of their annual budgets on highways and roads.⁷

Provided by the Maine DOT are the listed capital improvement projects and upgrades that have been included within the Work Plan for calendar years 2019-2020-2021 and 2020-2021-2022. The cost of each project along with scope of work and description are provided below. Note that work may extend into neighboring towns.

¹ <https://www.cnbc.com/2018/06/28/the-10-states-most-in-need-of-an-infrastructure-overhaul.html> Accessed January 8, 2020.

² https://tripnet.org/wp-content/uploads/2019/07/Fact_Sheet_ME.pdf Accessed January 8, 2020.

³ Ibid.

⁴ <https://www.brookings.edu/research/shifting-into-an-era-of-repair-us-infrastructure-spending-trends/> Accessed January 8, 2020.

⁵ Ibid.

⁶ https://www.maine.gov/mdot/projects/workplan/docs/2020/Work%20Plan_2020_2021_2022%20Jan_14_2020.pdf Accessed January 8, 2020.

⁷ <https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/state-and-local-backgrounders/state-and-local-expenditures> Accessed January 8, 2020. Local expenditure on other items includes: Elementary and Secondary Education – 40%; Health and Hospitals – 10%; Police and Corrections – 8%; Public Welfare – 4%; and Higher Education – 3%.

Maine DOT Work Plan Capital Projects, Programs, Maintenance, and Operations					
Year	Town(s)	Asset(s)	Description	WIN/ID	Funding
2019	Medway	Interstate 95	Clearing right of way on Interstate 95 between mile markers 243 and 244 on both the northbound and southbound lanes in Medway	WR 36903	\$ 33,000
2019	Medway	Interstate 95 SB	Repairing rail, curb, fascia, post, drains, and curb cover on Vaughan Daggett Memorial SB Bridge (#1410) over the Penobscot River. Located 0.43 of a mile south of the Route 157 overpass.	WR 37334	\$ 25,000
2019	Medway	Route 11	Repairs to maintenance building (#B35938) located on Route 11 in Medway 0.92 of a mile north of Route 157	WR 35037	\$ 120,000
2019	Millinocket	Granite Street	Repairing southern approach and wearing surface on Granite Street Bridge (#0902) over Millinocket Stream. Located 0.02 of a mile northeast of Congress Street.	WR 34562	\$ 100,000
2019	Millinocket	Millinocket Municipal Airport	Safety and infrastructure improvements that may include the acquisition of snow removal equipment with a wildlife hazard site visit.	18699.01	\$ 376,980
2019	Millinocket	Route 11	Ditching 10,560 LF and changing 4 cross culverts 1004008, 912718, 912722, 912844 on US route 11 in Millinocket. Starting just after the entrance of the Millinocket water company heading South for 2.02 miles on US route 11.	WR 36669	\$ 201,000
2020	Benedicta Twp, Herseytown Twp, Medway, Sherman, T1 R6WELS	Interstate 95	Large Animal/Vehicle crash mitigation measures. Beginning at the T2 R9 NWP town line and extending north 28.59 miles to the Crystal town line.	24221	\$ 132,000
2020	Herseytown Twp, Medway, T1 R6 WELS	Interstate 95 NB	Beginning 1.31 miles north of the T2 R9 NWP town line and extending north 12.93 miles to the Hersheytown TWP town line.	23679	\$ 6,630,000
2020	Long A Twp, Medway	Route 11	Replacing culverts (#890727, #102457) on Route 11. Located 3.40 miles north of the intersection of Route 157, and 3.00 miles north of Long A Twp.- T4 R9 NWP town line	WR 38612	\$ 130,000
2020	Medway	Interstate 95	Removing delaminated concrete from underneath multiple Interstate 95 bridges (#1410, #6078, #3141, #6077, #6141) in Medway.	WR 40179	\$ 33,000

2020	Millinocket	Millinocket Municipal Airport	Safety and infrastructure improvements that may include an Airport Master Plan Update to include a Wildlife Hazard Site Visit.	018699.02	\$ 155,000
2020	Old Town - Medway	Interstate 95	Interstate signing Old Town- Medway	22942	\$ 100,000
2021	East Millinocket, Grindstone Twp, Medway	Route 11	Beginning at Route 157 and extending north 4.38 miles to the Grindstone Twp line.	024489.00	\$ 145,000
2021/22	Medway, T2 R8 NWP, T2 R9 NWP	Interstate 95 NB	Beginning 0.43 of a mile north of the Interstate 95 Exit 227 northbound on-ramp and extending north 14.85 miles.	023597.00	\$ 3,690,000
2021/22	Millinocket	Millinocket Municipal Airport	Safety and infrastructure improvements that may include design and permitting for the reconstruction of Runway 11-29 and partial parallel Taxiway "D".	018699.03	\$ 618,000
2021/22	Millinocket	Millinocket Municipal Airport	Safety and infrastructure improvements that may include an FAA reimbursable agreement for the design work associated with the reconstruction of Runway 11-29.	018699.04	\$ 155,000
2021/22	Millinocket	Millinocket Municipal Airport	Safety and infrastructure improvements that may include an FAA reimbursable agreement for the construction work associated with the reconstruction of Runway 11-29.	018699.05	\$ 309,000
2021/22	Millinocket	Millinocket Municipal Airport	Safety and infrastructure improvements that may include the reconstruction of Runway 11-29 and partial parallel Taxiway "D".	018699.06	\$ 5,150,000

Source: Maine DOT Work Plans for 2019-2020-2021 and 2020-2021-2022.

Safety Assessment

Notable High Collision Areas

The MDOT rates accidents according to a Critical Rate Factor (CRF), which corresponds to the number of times the actual accident rate exceeds the expected accident rate. Generally, a CRF of 1.0 or more indicates a higher than usual number of accidents at that specific intersection or stretch of road. A High Crash Location (HCL) is a location that exhibits a CRF equal to or greater than 1.0 and that has experienced at least eight crashes in the most recent 3-year period. According to 2017 data, neither East Millinocket nor Millinocket, have any high crash locations where traffic conflicts occur. Medway has several road segments with CRF ratings above 1.0, notably Grindstone Road / Route 11 (CRF 1.95), Pattagumpus Road / Route 116 (CRF 1.03), and Interstate 95 Northbound (CRF 1.79) and Southbound (CRF 1.08).¹

During the five-year period between 2014 and 2019, the region experienced 670 vehicle crashes – an average of 134 per year. Of those crashes, only 7 – 1.0% – were fatal, compared to 0.4% statewide. 37.8% of crashes occurred during the winter, 23.6% during the spring, 21.0% during the summer, and 17.6% during the fall. The majority occur during the week and during the day when most people are commuting to and from work. Finally, 29.1% of regional accidents involved deer, 25.1% involved the driver leaving the road, 19.1% were rear-end collisions, and 15.5% occurred at an intersection.

¹ <http://www.itemaine.org/trafficdata/highcrashlocations/> Accessed February 7, 2020.

All Vehicle Crashes: 2014-2019.												
	Penobscot Cty			E Millinocket			Medway			Millinocket		
	Total	%	Avg	Total	%	Avg	Total	%	Avg	Total	%	Avg
Total Crashes	25,332		5,066.4	97		19.4	355		71.0	218		43.6
Fatal	104	0.4%	20.8	-	0.0%	-	4	1.1%	0.8	3	1.4%	0.6
OUI	734	2.9%	146.8	4	4.1%	0.8	8	2.3%	1.6	8	3.7%	1.6
Distracted	2,636	10.4%	527.2	7	7.2%	1.4	18	5.1%	3.6	26	11.9%	5.2
Speeding	3,940	15.6%	788.0	8	8.2%	1.6	66	18.6%	13.2	29	13.3%	5.8
Month of Year												
Jan	2,912	11.5%	582.4	11	11.3%	2.2	47	13.2%	9.4	26	11.9%	5.2
Feb	2,483	9.8%	496.6	14	14.4%	2.8	31	8.7%	6.2	23	10.6%	4.6
Mar	1,967	7.8%	393.4	6	6.2%	1.2	46	13.0%	9.2	20	9.2%	4.0
Apr	1,611	6.4%	322.2	6	6.2%	1.2	32	9.0%	6.4	12	5.5%	2.4
May	1,533	6.1%	306.6	5	5.2%	1.0	21	5.9%	4.2	10	4.6%	2.0
Jun	1,820	7.2%	364.0	6	6.2%	1.2	34	9.6%	6.8	21	9.6%	4.2
Jul	1,684	6.6%	336.8	9	9.3%	1.8	16	4.5%	3.2	22	10.1%	4.4
Aug	1,596	6.3%	319.2	7	7.2%	1.4	11	3.1%	2.2	15	6.9%	3.0
Sep	1,751	6.9%	350.2	5	5.2%	1.0	11	3.1%	2.2	17	7.8%	3.4
Oct	2,159	8.5%	431.8	5	5.2%	1.0	15	4.2%	3.0	21	9.6%	4.2
Nov	2,727	10.8%	545.4	6	6.2%	1.2	30	8.5%	6.0	8	3.7%	1.6
Dec	3,089	12.2%	617.8	17	17.5%	3.4	61	17.2%	12.2	23	10.6%	4.6
Day of Week												
Sun	2,705	10.7%	541.0	12	12.4%	2.4	34	9.6%	6.8	17	7.8%	3.4
Mon	3,655	14.4%	731.0	15	15.5%	3.0	62	17.5%	12.4	35	16.1%	7.0
Tue	3,856	15.2%	771.2	20	20.6%	4.0	50	14.1%	10.0	33	15.1%	6.6
Wed	3,844	15.2%	768.8	12	12.4%	2.4	44	12.4%	8.8	40	18.3%	8.0
Thu	3,755	14.8%	751.0	16	16.5%	3.2	57	16.1%	11.4	35	16.1%	7.0
Fri	4,310	17.0%	862.0	12	12.4%	2.4	64	18.0%	12.8	31	14.2%	6.2
Sat	3,207	12.7%	641.4	10	10.3%	2.0	44	12.4%	8.8	27	12.4%	5.4

Time of Day												
12:00 AM	388	1.5%	77.6	2	2.1%	0.4	5	1.4%	1.0	5	2.3%	1.0
1:00 AM	283	1.1%	56.6	2	2.1%	0.4	7	2.0%	1.4	1	0.5%	0.2
2:00 AM	275	1.1%	55.0	-	0.0%	-	6	1.7%	1.2	4	1.8%	0.8
3:00 AM	246	1.0%	49.2	1	1.0%	0.2	3	0.8%	0.6	-	0.0%	-
4:00 AM	351	1.4%	70.2	-	0.0%	-	10	2.8%	2.0	1	0.5%	0.2
5:00 AM	561	2.2%	112.2	3	3.1%	0.6	15	4.2%	3.0	3	1.4%	0.6
6:00 AM	850	3.4%	170.0	4	4.1%	0.8	15	4.2%	3.0	2	0.9%	0.4
7:00 AM	1,519	6.0%	303.8	6	6.2%	1.2	30	8.5%	6.0	11	5.0%	2.2
8:00 AM	1,198	4.7%	239.6	4	4.1%	0.8	16	4.5%	3.2	10	4.6%	2.0
9:00 AM	1,119	4.4%	223.8	8	8.2%	1.6	17	4.8%	3.4	9	4.1%	1.8
10:00 AM	1,247	4.9%	249.4	6	6.2%	1.2	14	3.9%	2.8	8	3.7%	1.6
11:00 AM	1,449	5.7%	289.8	8	8.2%	1.6	14	3.9%	2.8	25	11.5%	5.0
12:00 PM	1,517	6.0%	303.4	2	2.1%	0.4	12	3.4%	2.4	21	9.6%	4.2
1:00 PM	1,446	5.7%	289.2	3	3.1%	0.6	11	3.1%	2.2	18	8.3%	3.6
2:00 PM	1,681	6.6%	336.2	8	8.2%	1.6	21	5.9%	4.2	25	11.5%	5.0
3:00 PM	1,741	6.9%	348.2	4	4.1%	0.8	16	4.5%	3.2	12	5.5%	2.4
4:00 PM	1,955	7.7%	391.0	7	7.2%	1.4	20	5.6%	4.0	9	4.1%	1.8
5:00 PM	2,087	8.2%	417.4	8	8.2%	1.6	30	8.5%	6.0	13	6.0%	2.6
6:00 PM	1,338	5.3%	267.6	6	6.2%	1.2	13	3.7%	2.6	11	5.0%	2.2
7:00 PM	1,040	4.1%	208.0	3	3.1%	0.6	20	5.6%	4.0	10	4.6%	2.0
8:00 PM	985	3.9%	197.0	4	4.1%	0.8	17	4.8%	3.4	6	2.8%	1.2
9:00 PM	873	3.4%	174.6	5	5.2%	1.0	20	5.6%	4.0	5	2.3%	1.0
10:00 PM	650	2.6%	130.0	2	2.1%	0.4	14	3.9%	2.8	4	1.8%	0.8
11:00 PM	533	2.1%	106.6	1	1.0%	0.2	9	2.5%	1.8	5	2.3%	1.0
Type of Crash												
Object in Road	185	0.7%	37.0	1	1.0%	0.2	4	1.1%	0.8	-	0.0%	-
Rear End	8,295	32.7%	1,659.0	24	24.7%	4.8	29	8.2%	5.8	75	34.4%	15.0
Head-on	509	2.0%	101.8	4	4.1%	0.8	1	0.3%	0.2	11	5.0%	2.2
Intersection	4,251	16.8%	850.2	22	22.7%	4.4	15	4.2%	3.0	67	30.7%	13.4
Pedestrian	198	0.8%	39.6	1	1.0%	0.2	2	0.6%	0.4	3	1.4%	0.6
Went Off Road	6,185	24.4%	1,237.0	20	20.6%	4.0	106	29.9%	21.2	42	19.3%	8.4
Other Animal	159	0.6%	31.8	-	0.0%	-	4	1.1%	0.8	-	0.0%	-
Bicycle	115	0.5%	23.0	-	0.0%	-	-	0.0%	-	2	0.9%	0.4
Other	424	1.7%	84.8	-	0.0%	-	3	0.8%	0.6	4	1.8%	0.8
Jackknife	18	0.1%	3.6	-	0.0%	-	1	0.3%	0.2	-	0.0%	-
Rollover	187	0.7%	37.4	1	1.0%	0.2	6	1.7%	1.2	2	0.9%	0.4
Fire	137	0.5%	27.4	-	0.0%	-	1	0.3%	0.2	-	0.0%	-
Moving Object	80	0.3%	16.0	-	0.0%	-	1	0.3%	0.2	2	0.9%	0.4
Bear	60	0.2%	12.0	-	0.0%	-	2	0.6%	0.4	-	0.0%	-
Deer	4,201	16.6%	840.2	24	24.7%	4.8	167	47.0%	33.4	4	1.8%	0.8
Moose	292	1.2%	58.4	-	0.0%	-	12	3.4%	2.4	6	2.8%	1.2
Turkey	36	0.1%	7.2	-	0.0%	-	1	0.3%	0.2	-	0.0%	-
Source: Maine DOT Public Crash Statistics												

Notable Parties

The three Katahdin communities work collaboratively with Maine DOT and the U.S. Department of Transportation whenever possible to affect road and transportation maintenance and traffic permitting and improvement measures.

Millinocket Public Works

The Millinocket Public Works Department is responsible for maintaining the public roads and public infrastructure within Millinocket. As such, they oversee the maintenance of the cemetery, airport, and transfer station. The town is also responsible for the winter maintenance including 40 plus miles of public roadways, two schools, airport, public parkways, transfer station, and snow removal downtown.

East Millinocket Public Works

The East Millinocket Public Works Department is responsible for approximately 25 miles of public roadways. They are responsible for the summer and winter maintenance duties, including snow and ice removal and control. The Department also monitors and maintains the public's sewage, storm water, and water lines within the right of way.

Medway Public Works

The Medway Public Works Department is responsible for the winter maintenance of two State Aid roads totaling 9.64 miles, the winter and summer maintenance of 16.33 miles of its own roadways, and 15.26 miles of road contracted through Penobscot County and the County Commissioners office for winter maintenance operations. This contract includes Grindstone Township, Hersey Township and Soldier Township, all of which are on ME/U.S. Route 11 as well as on the Maine Scenic Byway, running parallel with the East Branch of the Penobscot River and leading to the entrance of the Katahdin Woods and Waters National Monument.

The Medway Public Works Department is also responsible for the summer and winter maintenance of the Medway Middle School, the operations of its Transfer Station, the maintenance of its four cemeteries, and the maintenance of its beach area, recreation facilities, and public boat landing on the East Branch of the Penobscot River.

Strategies and Policies

In order to encourage, promote, and develop efficient transportation services and facilities that will accommodate Medway, Millinocket and East Millinocket's future needs, local policies and implementation strategies have been developed in addition to the following state policies and implementation strategies:

State of Maine

Policies:

Minimum policies required to address state goals:

1. To prioritize community and regional needs associated with safe, efficient, and optimal use of transportation systems.
2. To safely and efficiently preserve or improve the transportation system.
3. To promote public health, protect natural and cultural resources, and enhance livability by managing land use in ways that maximize the efficiency of the transportation system and minimize increases in vehicle miles traveled.
4. To meet the diverse transportation needs of residents (including children, the elderly and disabled) and through travelers by providing a safe, efficient, and adequate transportation network for all types of users (motor vehicles, pedestrians, bicyclists).
5. To promote fiscal prudence by maximizing the efficiency of the state or state-aid highway network.

Strategies:

Minimum strategies to meet state goals:

1. Develop or continue to update a prioritized improvement, maintenance, and repair plan for the community's transportation network.
2. Initiate or actively participate in regional and state transportation efforts.
3. Maintain, enact or amend local ordinances as appropriate to address or avoid conflicts with:
 - a. Policy objectives of the Sensible Transportation Policy Act (23 M.R.S.A. §73);
 - b. State access management regulations pursuant to 23 M.R.S.A. §704; and
 - c. State traffic permitting regulations for large developments pursuant to 23 M.R.S.A. 704-A.
4. Maintain, enact or amend ordinance standards for subdivisions and for public and private roads as appropriate to foster transportation- efficient growth patterns and provide for future street and transit connections.

Time Frame: Ongoing

Responsible Agent(s): Maine DOT, East Millinocket, Millinocket, Medway

Local

Millinocket

- 1. Policy:** The town will maintain an appropriate system that will support the economy and social activities, and provide access to jobs, schools, and critical services that are vital to residents living in rural areas.

Strategies: Maintain capital budgets that aggressively and responsibly provide roadway improvements. The town should make good faith efforts to address existing deficiencies and future needs, and ensure that private developments address transportation impacts.

Time Frame: Ongoing

Responsible Agent(s): Town Manager, Public Works Department, Wastewater Treatment, Planning Board, and the Town Council
- 2. Policy:** Develop and update a long-range transportation plan for the town and involve the public and all of the other affected constituencies in all essential functions.

Strategies: The town will support a transportation plan that will play a fundamental role in the community's vision. It will include comprehensive consideration of possible strategies; an evaluation process that encompasses diverse viewpoints; the collaborative participation of relevant transportation-related agencies and organizations; and open, timely, and meaningful public involvement. Included in the planning will be strategies to promote the region through signage (directional and interpretive) and kiosks particularly focusing on the scenic byway route of the Grindstone Road and the Katahdin Woods and Water Scenic byway. Planning will also address the various recreational pathways for ATV, snowshoe and skiing, snowmobiling, biking, and hiking.

Time Frame: Ongoing

Responsible Agent(s): Town Manager, Public Works, Town Council, and the public

East Millinocket

- 1. Policy:** The town will maintain an appropriate system that will support the economy and social activities, and provide access to jobs, schools, and critical services that are vital to residents living in rural areas.

Strategies: Maintain capital budgets that responsibly provide roadway improvements. The town should make good faith efforts to address existing deficiencies and future needs and ensure that private developments address transportation impacts. Develop and update a long-range transportation plan for the town and involve the general public and other affected constituencies.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant, Public Works Department, Water and Wastewater Treatment and Board of Selectmen
- 2. Policy:** The Town will work with other groups to assist in development of multi-use trails for recreational use and economic development.

Strategies: To work with local clubs and organizations to develop a plan of action that supports through grants and other foundations, developments that will achieve the multi-use trail goal.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant, Recreation Director, Board of Selectmen and appropriate recreation and sports clubs in the region.

Medway

1. **Policy:** The Town will maintain and improve an appropriate road system that will give citizens the means to jobs, schools, social activities and critical services that are vital to residents living in rural areas.

Strategies: Keep up-to-date on the town's ten-year road improvement plan and address any deficiencies; identify and future needs and ensure private development addresses any transportation needs and/or impacts.

Time Frame: Ongoing.

Responsible Agent(s): Administrative Assistant, Public Works Department and Board of Selectmen

2. **Policy:** The Town will work with other agencies and groups such as but not limited to East Branch Sno-Rovers and Maine Dept. of Transportation to create and expand on the multi-use trails and to promote our access to the Katahdin Woods and Waters Scenic By-Way.

Strategies: Develop and update a long-range plan to address signage and transportation issues, and to involve local businesses, citizens and private groups to identify inconsistencies and problem areas.

Time Frame: Ongoing

Responsible Agent(s): Administrative Assistant, Public Works Director and Board of Selectmen

Chapter Twelve:

PUBLIC FACILITIES & SERVICES

Goals/Vision

State Goal

To plan for, finance, and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Local Goals

Millinocket

To maintain and upgrade current infrastructure while planning for future anticipated growth and economic development.

East Millinocket

To efficiently meet identified public facility and service needs. To provide public facilities and services in a manner that promotes and supports growth and development in identified growth areas.

Introduction

This section reviews existing public facilities and services and estimates future needs based on anticipated growth and economic development over the next decade. Each town has a different system of government and differing administration, but share common needs and geographic proximity. As such, efforts to consolidate services, when possible, are viable considerations to increase capacity while sharing and reducing costs.

Between 2018-2036, the Katahdin region's population is projected to decrease, with Millinocket losing nearly 10% of its population, East Millinocket experiencing a 16% decrease and an 8% decrease in Medway. The region's current municipal services are adequate to support future population and demographic changes. Currently, the region is working to manage overhead costs of overbuilt facilities that were originally intended to support a larger population.

General Municipal Administration

The municipalities of Millinocket, East Millinocket, and Medway are part of State Senate District #5, State House District #143, and U.S. Congressional District #2.

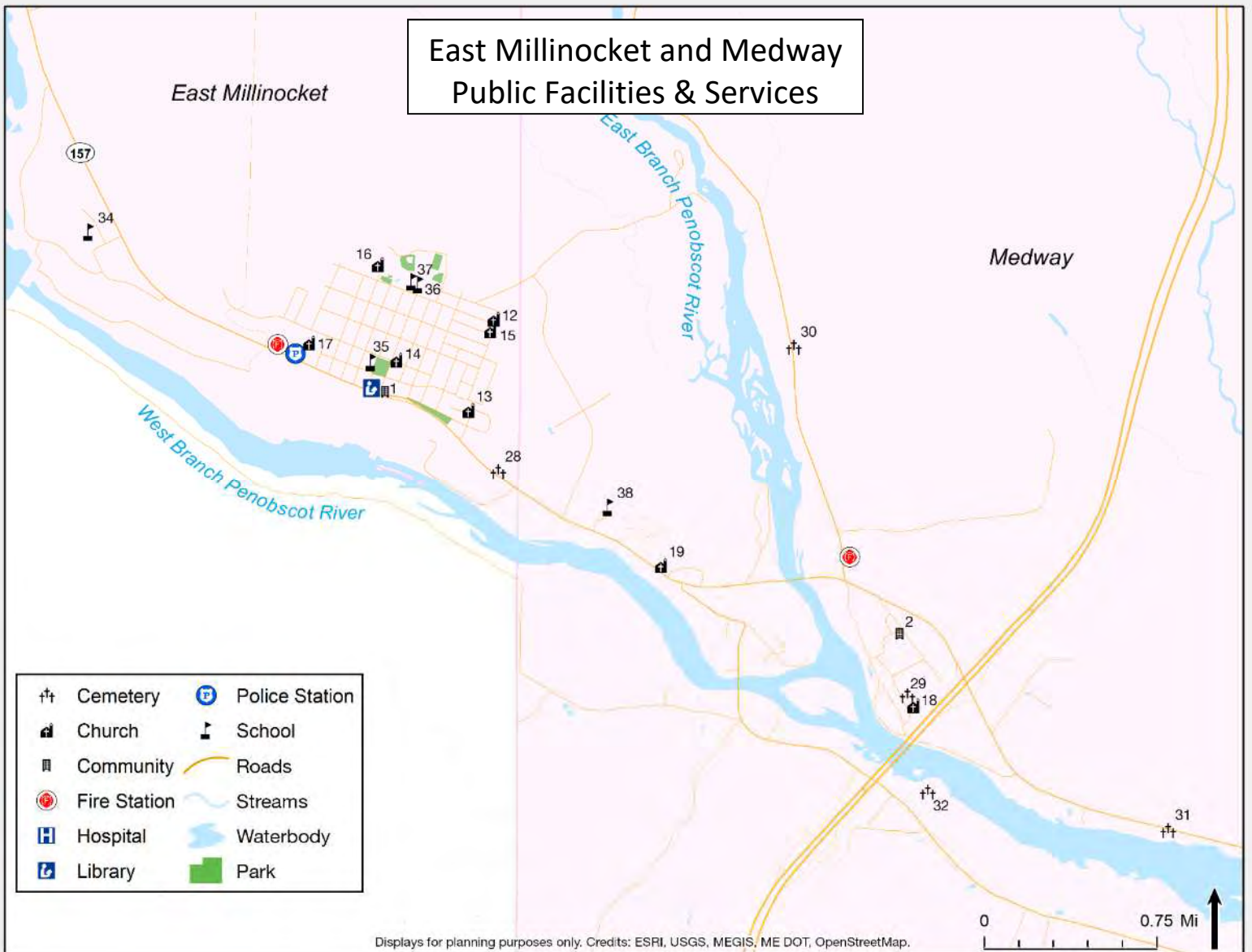
The Town of Millinocket has a Town Council / Town Manager form of government, where the manager is responsible for day-to-day operations. All municipal departments have capital reserve accounts for equipment and facilities costs, where applicable. The municipality also hosts a variety of services including: a licensing and clerk office; tax collections; planning board; board of assessment; board of appeals; code enforcement; licensed health inspection; electrical and plumbing inspection; human resources; and general assistance. The seven-member Council – including the Town Council

Chair –serves staggered three-year terms with elections held in November. The town’s fiscal year runs from July 1st through June 30th with budget workshops held in May and/or June.

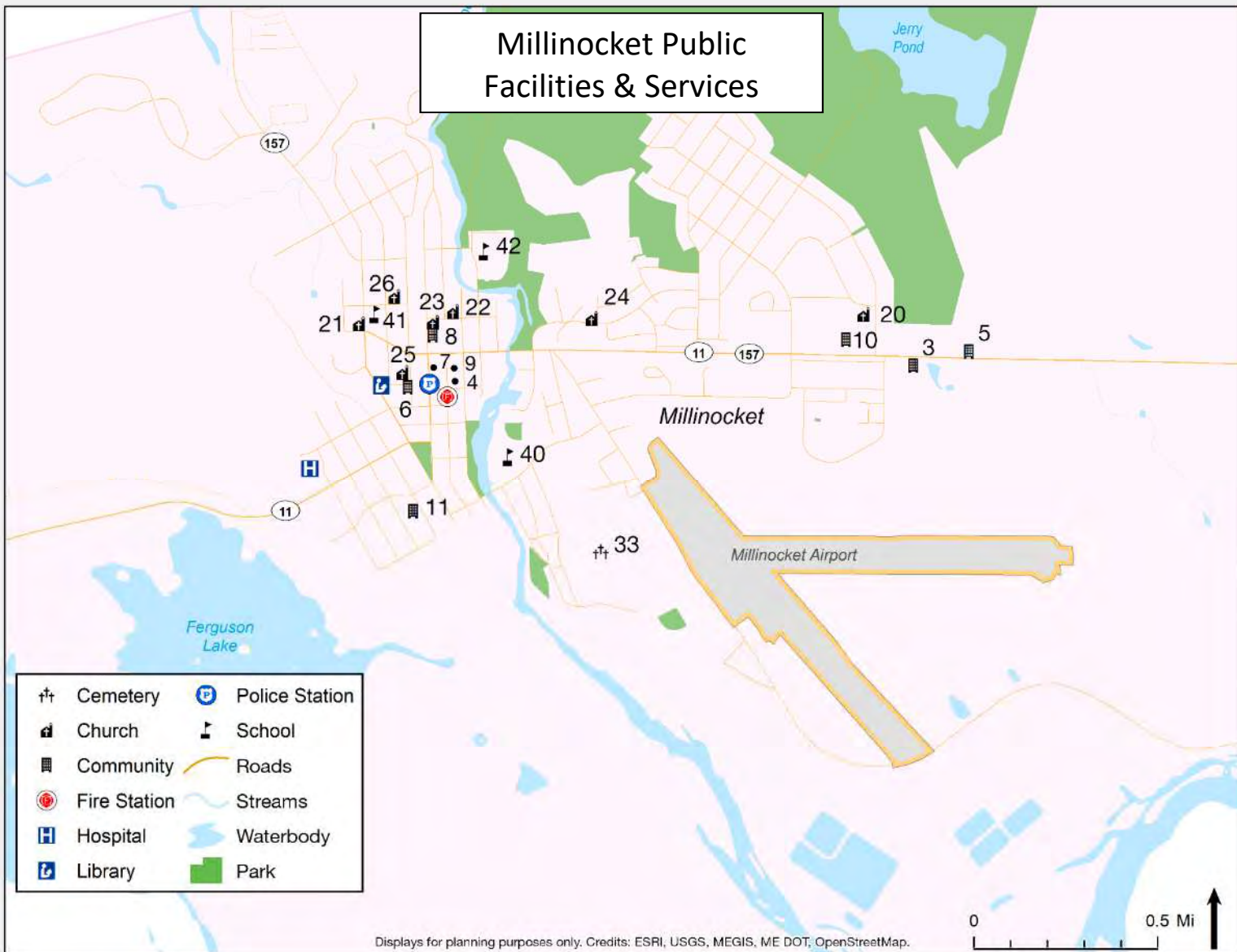
The Town of East Millinocket has a Board of Selectmen/Administrative Assistant form of government. The Board is currently comprised of four Selectmen and a Selectman Chair. Terms are staggered and elections are held in November. The administrative assistant is responsible for most of the day-to-day operations, with the Board retaining control over fiscal and personnel matters. The Selectmen’s office processes water and sewer payments, building permits, electrical and plumbing permits, occupancy permits, code enforcement issues, and other general town business. The Selectmen meet on a bi-weekly basis. The town has a fiscal budget that runs from July 1st through June 30th, with the budget process starting in February or March.

The Town of Medway has a five-member board of Selectmen. They meet every other Monday, and the Board of Selectmen is considered the Assessor’s for the town. The annual budget year runs from July 1st to June 30th.

East Millinocket and Medway Public Facilities & Services



Millinocket Public Facilities & Services



Education Facilities

Schools and Libraries			
Name	Address	City	Map No
East Millinocket Public Library	53 Main Street	East Millinocket	
Katahdin Area Higher Education Center	1 Dirigo Drive	East Millinocket	34
Katahdin Christian Academy	6 Beech Street	East Millinocket	35
Opal Myrick Elementary School	45 North Street	East Millinocket	36
Schenck High School	45 North Street	East Millinocket	37
Medway Middle School	25 School Street	Medway	38
Aroostook Ave School (closed)	70 Spring Street	Millinocket	
Granite Street School	191 Granite Street	Millinocket	40
Millinocket Memorial Library	57 Penobscot Avenue	Millinocket	
Millinocket Middle School (closed)	80 Maine Avenue	Millinocket	41
Stearns High School / Millinocket Middle School	199 State Street	Millinocket	42

Millinocket

- **Granite Street Elementary School:** Built in 1953 (expanded in 1963 and in 1998) the Granite Street School has a playground and 32,204 square feet of indoor space including a gymnasium and kitchen. There are 28 rooms used for offices, a library, and classrooms. The purpose of the 1998 addition was to consolidate all elementary students within one facility. Annual student registration (2018-2019) was 216.
- **Stearns High School:** Built in 1963, with renovations and additions in 1974 and 1998, Stearns High School is located beside the town recreation complex and fields. It has 124,000 square feet of indoor space on two floors, including a cafeteria, gymnasium, library, auditorium, locker rooms, three vocational shops, and 35 classrooms. The 1998 addition created two separate areas for the middle school and the high school students. Annual student registration (2018-2019) was 267.
- **Millinocket Middle School (closed):** Built in 1922 and renovated in 1941, the old Middle School building had 63,648 square feet of indoor space on three floors, including a gymnasium, auditorium, library, and nearly 40 other offices and classrooms. An addition to the new Stearns Junior/Senior High School facility allowed this school to be closed and students relocated in 1998. This facility has since been sold and developed as an assisted living facility.
- **Aroostook Avenue School (closed):** Built in 1915, the Aroostook Avenue School has a playground and 17,580 square feet of indoor space on two floors. There are nine rooms used for offices, a library, and classrooms. This school was closed in 1998 and the students were moved to the Granite Street School. The town sold the building to private owners who rent office spaces within the building to day care providers and other entities.

East Millinocket

East Millinocket is part of School Union 113, which includes the towns of East Millinocket, Medway and Woodville.

- **Opal Myrick Elementary School:** Opened in 1957, this public school serves approximately 148 students from pre-Kindergarten to 4th grade living in East Millinocket, Medway, and nearby unorganized territories. Located in the heart of East Millinocket, Opal Myrick serves students from East Millinocket and Medway. The school was relocated in 2011, now sharing a 62,000 square foot facility with Schenck High School including a gymnasium, cafeteria, auditorium, library, and traditional offices and classrooms. The building has been recently renovated including \$2.4 million was spent in 2014-2015 on a new roof and entrance, made possible by a generous local benefactor as well as State funding. Grant funding was responsible in 2017 for an overhaul of the heating system, as well as improvements to the library, gym, and security systems. The school was awarded \$450,000 through grants to renovate the school's performing arts center. That project is ongoing as of 2019-2020 school year.
- **Schenck High School:** Housed in the same building as Opal Myrick, Schenck High School consists of grades 9-12 and offers a rigorous curriculum including college enrollment courses via Eastern Maine Community College and several honors classes. A very popular Outdoor Education program offers students an opportunity to earn college credit and to take the Maine Guide exam. This program, offered in conjunction with EMCC, trains students using adventure-based experiential learning. Schenck High School also offers a variety of diverse extra- and co-curricular activities including opportunities to receive credit through work-study, community service, and independent study. Currently Schenck has an enrollment of 114 students (2019-2020).
- **Katahdin Christian Academy:** Opened in 2013, this private religious school is housed in the original Opal Myrick School built in 1926.

Katahdin Region Higher Education Center (KRHEC): Established in 1987, the Katahdin Region Higher Education Center is located in the Katahdin Regional Industrial Park off Route 157 in East Millinocket. The center offers both credit and non-credit courses as well as degree programs through a partnership with the Eastern Maine Community College and the University of Maine Augusta System. KRHEC also assists business and industry by providing customized apprenticeship training.

Medway

- **Medway Middle School:** The middle school opened in 1977 and supports a population of 113 students. The school houses 30 offices and classrooms, a library, a gymnasium, and portable cafeteria and lunchrooms. Additionally, the school can serve as a free space for functions such as receptions, family reunions, and benefit suppers. The school serves grades 5 through 8 for the communities of Medway, East Millinocket, and Woodville.

In 2014, a feasibility study was conducted to determine if Stearns High School in Millinocket could accommodate grades K through 12, and to identify constraints, code issues, and costs related to implementing such a plan. The study concluded two findings: First, that student capacity of these schools was considerably larger than required by the current school populations. Second, the plans created to integrate all grades in one facility were feasible. Review of code requirements showed that building modifications would be required, but were not significant. Thus, this school consolidation can serve as a model for areas where school infrastructure overserves a reduced student population.

It is important that enrollment and population statistics are analyzed in similar jurisdictions to reduce costs, but also that valuable municipal-owned property is used to its fullest potential.

Community Facilities

Faith-Based Services

Below is a list of faith-based services within the area:

Churches			
Name	Address	Town	Map No
Calvary Temple Assembly of God	2 Orchard Street	East Millinocket	12
First Baptist Church of East Millinocket	2 Oak Street	East Millinocket	13
First Congregational Church	11 Maple Street	East Millinocket	14
Living Hope Church of the Nazarene	1 Palm Street	East Millinocket	15
Saint Peter's Catholic Church	58 Cedar Street	East Millinocket	16
Tri Town Baptist Church	8 Cone Street	East Millinocket	17
Congregational Church of Medway (historic)	Church Street	Medway	18
Glad Tidings Church of God	2181 Medway Road	Medway	19
Faith Baptist Church	244 Massachusetts Avenue	Millinocket	20
First Congregational Church of Millinocket	274 Katahdin Avenue	Millinocket	21
I Care Ministries	45 Spring Street	Millinocket	22
Millinocket Baptist Church	297 Penobscot Avenue	Millinocket	23
Millinocket Church of the Nazarene	134 Forest Avenue	Millinocket	24
Saint Andrew's Episcopal Church	40 Highland Avenue	Millinocket	25
Saint Martin of Tours Catholic Church	18 Colby Street	Millinocket	26

Cemeteries

Millinocket owns and maintains one cemetery, which contains tombstones dating back to the early 1900s. Although it is anticipated that enough land remains to meet local needs for the next ten years, especially with an expansion in 2004, the problem of “overlap” still exists. A recent study has identified plots to meet clerical needs, however, due to documentation errors some lots were sold twice. The community is addressing the issue and has taken steps to ensure that this does not occur again.

East Millinocket owns and maintains one cemetery as well, with tombstones dated prior to 1900. Current residents and individuals who establish residency of no less than 15 years in a lifetime and who no longer reside in East Millinocket can purchase cemetery lots. Due to space constraints, the Town is looking at incorporating a mausoleum in the near future.

Medway has several cemeteries dating back to the mid 1800's. Fiske Cemetery is located on Church Street and adjacent to the Old Medway Church. The town also is home to Pattagumpus Cemetery (historic), Lynch Cemetery, Pine Tree Cemetery (historic), Grindstone Cemetery, and Stanley Cemetery (private). The Grindstone Cemetery is open for lot purchases and expects that it will sustain the town over the next twenty years.

Cemeteries			
Name	Address	Town	Map No
East Millinocket Cemetery	Medway Road/ Rte 157	East Millinocket	28
Fiske Cemetery	Church Street	Medway	29
Grindstone Road Cemetery	Grindstone Road/ Rte 11	Medway	30
Lynch Cemetery	Medway Road/ Rte 157	Medway	31
Pine Tree Cemetery	Pine Tree Cemetery Road	Medway	32
Saint Martin of Tours Cemetery	East Avenue	Millinocket	33

Libraries

The Millinocket Memorial Library is located on the corner of Hill Street and Maine Avenue. It was built in 1963 and is in excellent condition. With split-level construction and an area of 9,000 square feet, the library provides a number of services including a book collection with approximately 40,000 volumes and an annual circulation fluctuating between 47,000 and 51,000. There are three full-time staff and five part-time staff members. The library also hosts the Katahdin Gear Library – a lending library, outdoor adventure club, and public space for people of all ages to access equipment and tools, information, and leadership. Ultimately, the goal is to connect people around a common interest in outdoor adventure and recreation. KGL currently checks out bikes, backpacks, kayaks, paddleboards, canoes, skis, and snowshoes. In 2017, the library launched the Centennial Renovation project, which will house the facility in a new building. The Next Generation Foundation provided a major grant to begin the \$1.25 million capital campaign, with further investments by foundations, businesses and individuals. Construction began in the spring of 2019 with anticipated completion in the spring of 2020.

The East Millinocket Public Library is located at 53 Main Street. It was built in 1938 and is in fair condition. This public library is funded by grants and donations, and contains 25,000 volumes in its collections. The library staff consists of an administrative assistant acting as director in addition to a staff of volunteers. The library received over 1,100 visitors during the 2018-2019 year.

The Town of Medway does not have a public library.

Neither of the library's collections resides solely within the building. The increase in technology, the internet, and the acceptance of electronic interlibrary loans has enabled library patrons to access materials statewide, nationwide, and even internationally. Electronic databases that cost millions of dollars have been leased at a fraction of the cost through funding from the Maine State Library and the University of Maine. These databases are available to every citizen and may be accessed at any library in the state at no cost.

Community Organizations/Groups

Below is a list of Community Organizations and Groups located in the region:

Community Organizations			
Name	Address	Town	Map No
East Millinocket Municipal Building	53 Main Street	East Millinocket	1
Daughters of Isabella, #545	58 Cedar Street	East Millinocket	
Medway Town Office	4 School Street	Medway	2
American Legion	970 Central Street/ Rte 157	Millinocket	3
Elks Lodge	213 Aroostook Avenue	Millinocket	4
Katahdin Chamber of Commerce	1029 Central Street/ Rte 157	Millinocket	5
Knights of Columbus, #680	27 Highland Avenue	Millinocket	6
Millinocket Municipal Building	197 Penobscot Avenue	Millinocket	7
Nollesemic Masonic Lodge	27 Spruce Street	Millinocket	8
Our Katahdin	245 Aroostook Avenue	Millinocket	9
Thrive Penobscot	899 Central Street/ Rte 157	Millinocket	10
Veterans of Foreign Wars (closed)	40 Oxford Street	Millinocket	11

Public Safety

Fire & EMT

The Millinocket Fire Department currently consists of a fire chief supported by an assistant chief and four professional full-time firefighters/EMTs and 15 on-call firefighters. Many of these personnel hold EMT or paramedic licensure. Training for fire and ambulance personnel is ongoing to comply with new safety laws, which are regularly updated. All ambulance personnel are licensed. All major fire department equipment is reported to be in good condition. The major equipment of the Millinocket Fire Department consists of the following:

- Pumper trucks (2)
- Chief's vehicle (1)
- Emergency power plant (2 – 10,000 watts)
- Ambulances (3)
- Rescue snowmobile and trailer (1)
- Rescue-Boggan's (2)
- Rescue boat (1)

The Millinocket Fire Department's main facility is located on Aroostook Avenue and was built in 1939. The fire department also supplies services – by written agreement with Penobscot and Piscataquis County governments – to the unorganized areas surrounding Millinocket and has a written mutual-aid agreement with the Town of East Millinocket.

The East Millinocket Fire Department is led by the Fire Chief who also serves as the Ambulance Director for the community. The Chief is supported by a staff of 12 on-call volunteer firefighters, two captains and two lieutenants, six full-time paramedics, five per diem paramedics, six per diem Advanced EMTs, six EMTs, and 12 per diem drivers. East Millinocket also offers 24-hour EMS service for the town of Lincoln and covers a service area as far east as Kossuth, south to Enfield, to Chester, and North to Reed Plantation. The East Millinocket station is staffed with 24-hour coverage consisting of a firefighter and one paramedic/EMT. Training for fire and ambulance personnel is

ongoing in compliance with safety laws. All ambulance personnel are licensed. All major fire department equipment is reported to be in good condition. The major equipment of the East Millinocket Fire Department consists of the following:

- Pumper trucks (2)
- Emergency Response Vehicle (1)
- Ambulances (7)
- Light/Power Plant (1-shared)
- Snowmobile/rescue sled (1)
- UTV with Tracks and Rescue Bed (1)

The East Millinocket Fire Department was founded in 1907 with the help of the Great Northern Paper Company. It has been housed in its current facility, located at 125 Main Street, since 1976. In 2013, EMFD formed the East Millinocket/Lincoln Ambulance Service, which covers approximately 1,100 square miles and provides coverage to 14 communities and over 30 miles of Interstate 95. The ambulance service provides hospital and Veteran's Administration transfers from Maine to New Hampshire, Massachusetts, Connecticut, and Vermont.

The Town of Medway operates their own fire department, which is located at 23 Grindstone Road. The Medway Fire Department, founded in 1973, has one full-time chief and 13 paid, on-call firefighters who respond to an average of 90 calls per year. The fire department employs a deputy chief, a captain, a lieutenant, junior and senior firefighters, and traffic control personnel. Medway Fire Department operates the following heavy equipment:

- Engine tanker 881 and Engine tanker 882
- Tanker/Brush 884
- Utility Vehicle 887

The Medway Fire Department covers all of Medway, including Interstate 95 (Mile 242 to Mile 249). They are also responsible for responding to emergencies in Molunkus Township, and provide mutual aid to the Towns of East Millinocket, Mattawamkeag, Millinocket, and Sherman.

Police

In Millinocket, the police services are provided via contract by East Millinocket Police Department (EMPD). The chief is supported by detective-sergeant, three police officers hired in December of 2020 and ten reserve officers from EMPD. One animal control officer exists to provide support to both police and fire departments. Dispatch is handled through Penobscot County Regional Dispatch. The Police Department is located in the lower levels of the Municipal Building. Incarceration facilities in the Millinocket Police Department allow for a maximum of a four-hour detention period. In cases where a longer detention is necessary, local police utilize the Penobscot County Jail in Bangor.

East Millinocket employs a full-time police chief whose office is based at 125 Main Street. The Police Department provides 24-hour law enforcement coverage for the communities of East Millinocket and Medway. Staffing consists of two full-time sergeants, the police chief, and a number of reserve officers. The police also act as the Town's animal control officers. East Millinocket does not allow for periods of incarceration and utilizes the Penobscot County Jail in Bangor.

The Millinocket and East Millinocket Police Departments work with State and regional investigators. The County Sheriff and State Police maintain certain jurisdictions over the town. In the event of an

emergency in the unorganized areas surrounding the communities, other law enforcement agencies may request response assistance from the Millinocket and East Millinocket Police Departments.

Public Works

Road Surface Management System

A Road Surface Management System (RSMS) is a software tool to help town officials take care of their roads more efficiently by managing both time and money. Road funds are managed by finding cost-effective ways to distribute finite dollars among the many roads that need attention. Time is managed by taking into account the life expectancy of different types of road repairs to establish when and how often the work should be performed.

Currently the towns monitor road conditions and have a schedule for road maintenance.

Road Maintenance

In Millinocket, Public Works is responsible for 41 miles of road, which consists of snow plowing. They also clear snow at two schools, one airport, parking areas, transfer station, and downtown. They are responsible for all snow removal operations during the daytime and nighttime. The town has been broken up into four sections with four plow trucks dedicated to each. A wheeler and a grader clear main routes during larger storms, when necessary. The town owns a trackless sidewalk plow to assist in the removal of snow on sidewalks at the schools and in the downtown area. A newly built building at the airport will be useful in storing winter maintenance equipment, extending the life of that equipment.

The Public Works Department of East Millinocket is in charge of approximately 25 miles of urban streets and rural roads, including 282 storm drains. Maintenance includes both summer duties and winter snow and ice control. The department also assists in maintaining the Town's sewer lines. A staff of one lead-man, a mechanic, and two other employees perform public works for the community.

In Medway, a staff of three perform public works for the community. This includes road maintenance during both summer and winter months, assuring that roads and adjacent walkways are clear of snow, ice, and debris.

Emergency Shelters

For each community, the Fire Chief functions as the Emergency Preparedness Director. Emergency shelter locations include:

Millinocket

- St. Martin of Tours Roman Catholic Church
- Stearns Junior/Senior High School
- Public Works Garage

East Millinocket

- Schenck High School

Medway

- Medway Middle School
- Medway Fire Station (including backup power supply)

Public Utilities

The following utilities, media, and infrastructure services cover Millinocket, East Millinocket, and Medway. No needed improvements to telecommunications have been identified.

Electric Company(s)

- Versant Power - Bangor Hydro Electric Corporation

Telephone/ Broadband Provider(s)

- Consolidated Communications
- Bee Line
- GWI
- DirectTV
- Dish Network (?)

Television, Cable, and Radio

- WLBZ – Channel 2 (NBC affiliate)
- WABI – Channel 5 (CBS affiliate)
- WVII – Channel 7 (ABC affiliate)
- Maine Public Broadcasting System (PBS) – Channel 12
- WSYX 94.9 Radio Station
- WMEM 106.1 Radio Station (Maine Public)

Newspaper Provider(s)

1. The Lincoln News (weekly)
2. Bangor Daily News (daily)
3. Portland Press Herald (daily)

Postal Service

Millinocket's Post Office – 04462 – is located at 113 Penobscot Avenue near the municipal building. Although many residents have a post office box, most mail is delivered through a carrier. East Millinocket's Post Office – 04430 – is located at 95 Main Street in close proximity to the Town Office. Medway hosts its Post Office – 04460 – is located at 2070 Medway Road. Direct carrier service is provided for home delivery.

Solid Waste Management

Millinocket operates a Transfer Site and Recycling Facility – opened in 1977 – for residents and small commercial businesses. Currently there are two full-time employees and two part-time employees responsible for the facility. The building has two hoppers for depositing trash and two compactor units to move the trash into transport trailers. Prior to environmental law changes in 1991,

Millinocket's trash went to the Great Northern - Katahdin Paper Company's landfill at Dolby about 5 miles away. Since October of 1991, trash has been hauled to Penobscot Energy Recovery Company (PERC) in Orrington, Maine, approximately 90 miles away. The town recently switched to Fiberight, LLC, for its waste disposal and recycling needs. The current Millinocket facility has a fee-for-collection area for scrap metal, tires, and some demolition debris materials. The town has a mandatory recycling program in place for cardboard, plastic jugs, newsprint, magazines, paperboard containers and glass jars; however, enforcement of this mandatory program continues to be difficult.

East Millinocket maintains a Transfer and Recycling Facility, staffed by a Transfer Station Attendant. Located on Main Street, the site accepts municipal solid waste and waste oil. The current facility has a collection area for scrap metal, tires, and some demolition debris. There is a disposal fee charged to residents for the deposit of these materials. The town has a mandatory recycling program in place for cardboard, plastic, paper and paperboard, and glass.

Medway's Transfer Site employs two employees and one "fill-in" employee to process municipal solid waste, white goods and bulky wastes, tires, and roofing materials. It is located on Grindstone Road adjacent to the East Branch Penobscot River.

Currently, the solid waste management systems are meeting the needs of the three municipalities.

Public Water

Maine Water Company, formerly Aqua Maine, supplies nearly all water used in Millinocket. A major exception is One Katahdin, formerly Great Northern Paper Company, which operates a private water system. Only a few buildings in outlying areas have private wells, including the outer limits of Morgan Lane, Rice Farm, Godding Cement, and other structures located in the annexed portion of town. The water is drawn from Ferguson Pond, treated in the filtration plant, and distributed through a system of water mains. There are two steel standpipes in town: one on the Golden Road (500,000 gallons) and one in the New Development (244,000 gallons). Service connections to the existing system are estimated at five to ten per year over the next ten years. Development outside of the existing service area will need to be regulated to reduce duplicative or overbuilt water infrastructure.

East Millinocket Water Works – established in 1979 – was purchased from General Waterworks Corporation who operated the water system starting in 1907 since the Town's incorporation. The majority of the Town's underground water distribution system was designed and installed by the Great Northern Paper Company roughly 50 years ago. The well system pumps an average of 600,000 gallons per day to 861 service connections.

Currently the Town's water sources are three gravel packed wells located on Hathaway Road. Water Works personnel, led by the Utility Superintendent, are responsible for routinely monitoring and treating the water supply according to Federal and State laws; however, they also work to maintain approximately 28 miles of water lines and 110 fire hydrants and other related maintenance. Since the town has taken over the waterworks, they have replaced and/or upgraded 55 of 110 hydrants in the system. Ongoing work to replace 1,200 feet of supply pipe, installation of two fire hydrants, and upgrades to storage and pump systems is expected for 2019 and 2020.

Medway is supplied by mostly private water wells with the exception of Wilderness Drive, which receives municipal water from the town of East Millinocket.

Wastewater Treatment Plant

The Millinocket Sewer System consists of approximately twenty-seven miles of line, including gravity flow lines, five forced mains, three intercepting sewers, five pumping stations, and a treatment facility. The lines range in installation date between 1900 and present. These are made of clay, cast iron, concrete, and PVC materials. The Wastewater Treatment Facility was constructed between 1977 and 1979 and employs three licensed technicians. Treatment at the facility is accomplished by biological treatment as provided by an aerated pond system. Effluent from the facility is discharged in the West Branch of the Penobscot River. The wastewater treatment facility can process only sanitary wastewater, as mandated by the waste discharge license issued by the Department of Environmental Protection.

The estimated populations used in projecting sewer demand and construction were higher than the current population levels. There are currently 2,200 private and public hook-ups, however the maximum capacity is capable of serving a population of 12,000 people. Managing the overhead for such an overbuilt facility is a priority for many municipalities experiencing population decline. The Town of Millinocket is evaluating the construction of a solar energy array on the grounds of the wastewater treatment facility as a way to defray energy costs for the town.

The East Millinocket Wastewater Treatment Facility was established in 1984 and operates approximately 24 miles of sewer lines, 124 sewer manholes, and other related maintenance. It consists of one gravity sewer and one pump station. The Town's primary wastewater treatment facility originally consisted of an exterior headworks facility, primary clarifiers, and sludge pumping and dewatering facilities. Secondary treatment was handled by the former Great Northern Paper Company's plant, which was built in 1975. In 2014, the mill declared bankruptcy and the town took ownership of that treatment facility in June of 2015. The facilities also handle run-off from the Dolby Landfill, which can double the volume of treated water in the spring season.

An engineering firm was hired to address the now oversized and aging facilities, as well as to explore the construction of a new plant as well as extensive site work such as the demolition of old town- and mill-owned facilities. The Town procured \$10 million from sources such as the USDA, Community Development Block Grants, Maine State Revolving Funds, and local tax dollars. The facility became operational in August of 2019 and is overseen by a Utility Superintendent and a Wastewater Operator.

Similar to its water supply, Medway is primarily serviced by privately owned septic systems maintained by homeowners. Failing septic systems can cause groundwater contamination. Contaminated water can also seep into water bodies or into subsurface drinking water.

General Assistance

Healthcare Services

Millinocket Regional Hospital is a Critical Care Facility licensed for 25 beds and located at 200 Somerset Street. In FY 2016, MRH served over 2,100 patients, a 2.69% increase from FY 2015.¹ The hospital is a non-profit community hospital, which provides inpatient and outpatient medical, surgical, pediatric, and obstetric-gynecological services as well as walk-in services to Millinocket, East Millinocket, Medway, and other surrounding communities. The hospital is fully accredited by the Joint Commission on Accreditation of HealthCare Facilities and is licensed by the Maine Department of

¹ <http://www.mrhme.org/wp-content/uploads/2014/05/MRH-periodic-eval.pdf> Accessed February 21, 2020.

Human Services. It is also a member of the American Hospital Association and Maine Hospital Association.

The hospital operates several satellite facilities including a Walk-in Care clinic located at 87 Main Street in East Millinocket. This facility provides timely and cost-effective treatment for non-emergency conditions including cuts, burns, colds and flus, ear infections, and functions as an occupational health care provider. The White Birch Medical Center located at 899 Central Street in Millinocket offers rehabilitation, lifestyle, and physical therapy services.

A number of local and independent doctors operate their own offices serving the three towns. The Katahdin Nursing Home is a 36-bed elder living and rehabilitation facility located at 22 Walnut Street in Millinocket. The Ben Fiske Health Center located at 1930 Medway Road in Medway provides Medicaid and Medicare qualified primary care services. Katahdin Valley Health Care is a multi-service center providing Millinocket with primary care, behavioral health, podiatry, massage therapy, optometry, physical therapy, dental care, chiropractic care, pharmacy, acupuncture, pediatrics, and walk-in care services.

Health Access Network is a federally qualified healthcare center serving populations including low income and uninsured individuals. It is based in Lincoln, Maine, but maintains offices in Medway and Millinocket. The Medway office provides family medical care, laboratory services, behavioral health counseling, and case coordination while the Millinocket office provides behavioral healthcare counseling. Residents of all three Katahdin communities have access to the Lincoln-based center for dental care, walk-in care, podiatry and foot surgery, osteopathic manipulative treatment, occupational health, lab and x-ray services, and case coordination. Lincoln is approximately 34 miles from Millinocket.

Social Security Office(s)

The closest office for the communities is the Bangor Social Security Office located at 202 Harlow Street in Bangor, Maine.

Bureau of Motor Vehicles

The Bureau of Motor Vehicles does not host a permanent location in Medway, East Millinocket or Millinocket. However, on the Friday following the 3rd Tuesday of every month, the BMV Mobile Unit is located at 970 Outer Central Street in Millinocket.

Strategies & Policies

In order to provide public facilities that meet the current and future needs of the Katahdin Region, local policies and implementation strategies have been created in addition to the following state policies and implementation strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To efficiently meet identified public facility and service needs.
2. To provide public facilities and services in a manner that promotes and supports growth and development in identified growth areas.

Strategies:

Minimum strategies to meet state goals:

1. Identify any capital improvements needed to maintain or upgrade public services to accommodate the community's anticipated growth and changing demographics.
2. Locate new public facilities comprising at least 75% of new municipal growth-related capital investments in designated growth areas.
3. Encourage local sewer and water districts to coordinate planned service extensions with the Future Land Use Plan.
4. If public water supply expansion is anticipated, identify and protect suitable sources.
5. Explore options for regional delivery of local services

Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket, Millinocket

Local

Millinocket

Policies:

1. To meet identified public facility and service needs efficiently.
2. To provide public facilities and services in a manner that promotes and supports growth and development in identified growth areas.

Strategies:

1. Identify any capital improvements needed to maintain or upgrade public services to accommodate the community's anticipated growth and changing demographics.
2. Locate new public facilities comprising at least 75% of new municipal growth-related capital investments in designated growth areas.
3. Encourage local sewer and water districts to coordinate planned service extensions with the Future Land Use Plan
4. If public water supply expansion is anticipated, identify and protect suitable sources.
5. Explore options for regional delivery of local services and continue to network regionally.

East Millinocket

1. **Policy:** *None at this time*

Strategies:

Time Frame:

Responsible Agent:

Medway

1. **Policy:** *None at this time*

Strategies:

Time Frame:

Responsible Agent(s):

Chapter Thirteen:

FISCAL CAPACITY & CAPITAL INVESTMENT

Goals/Vision

State Goal

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Local Goals

Millinocket

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development while both increasing the tax base and reducing financial stress on residential taxpayers.

East Millinocket

To strategically forecast funding needs for community public services and capital investments to support continued delivery of needed services by the citizens of the Town and to support economic growth and prosperity.

Introduction

The towns of Millinocket, East Millinocket and Medway determine the cost to provide basic services and evaluate the impact municipal spending will have on their residents. Common in Maine, municipal property tax revenues are a primary funding source. Municipal finance stability is the fundamental responsibility of each community and must be responsive to shifting priorities from year to year by appropriately managing capital reserve accounts and ongoing public service expenditures. Grant funding has assisted in reducing local costs while expanding improvements to public services and infrastructure.

Overall Assessment

Municipal finances can generally be described as governmental or business-type activities. Governmental activities are funded through taxes and intergovernmental revenues and generally include any capital assets and liabilities. These include general administration, public safety, education, social programs, and street and road maintenance. Business-type activities are generally funded by fees for services provided and are reported under enterprise funds. These include things like public utilities, sewer and water services, and landfills and trash removal. Both Millinocket and East Millinocket report separate governmental and business-type activities, while Medway only reports governmental activities.

Revenues and Expenses

Revenue is generally divided into funds from specific programs – schools, municipal operations, utilities, and so on – and general revenues from taxes and other intergovernmental funds. Like other former mill towns, the Katahdin region relied heavily on the paper companies to pay a high proportion of local taxes, making them by far the largest taxpayer. The closure of the mills in East Millinocket and Millinocket has resulted in significant changes to tax revenue structures that financed municipal obligations.

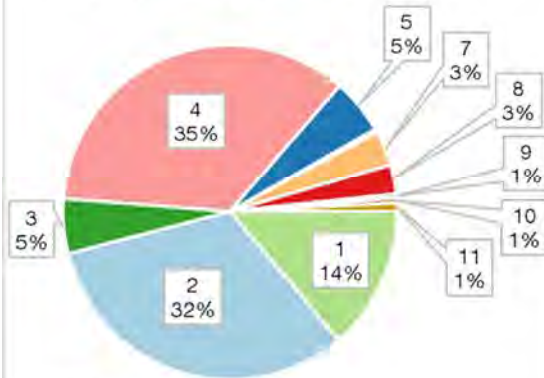
The bulk of municipal revenues in all three towns come from charges for services, from operating grants, and from property taxes. Charges for services include protection and safety, education, public utilities such as sewer and water, and health and human services. In FY 2018, Millinocket sourced 13.8% of its revenues from these charges, East Millinocket 39.0%, and Medway 19.7%.

Operating grants and contributions are often sourced from county, state, or federal programs and include funds for education, school lunches, and retirement benefits. In FY 2018, Millinocket sourced 32.2% of its revenues from operating grants, East Millinocket 21.5%, and Medway 34.5%.

Property taxes are assessed against land, buildings, and other assets and are a common self-sourced form of income. As such, reductions to county, state, or federal funding for these municipal programs often compel municipalities to rely on local property tax as a stable source of revenue. In FY 2014, Millinocket sourced 40% (\$6,019,897) of its revenues from property taxes, East Millinocket 23.3% (\$2,275,002), and Medway 31.2% (\$1,422,521). In FY 2018, those figures had changed to 35.2% (\$5,218,619) in Millinocket, 25.8% (\$2,364,709) in East Millinocket, and 30.3% (\$1,418,388) in Medway. These figures represent a 3.8% increase in property tax revenues in East Millinocket, and a 15.4% and 0.3% reduction in Millinocket and Medway, respectively.

The Municipal Revenue Sharing Program (30-A MRSA §5681) allows municipalities to aggregate and redistribute revenues through a local government fund. These are sourced from income, sales, and other tax sources and are reported under general revenues. These sources contribute between 2-4% of revenues for the Katahdin region.

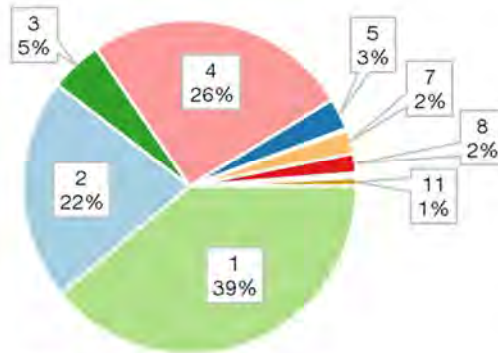
Revenues: FY2018 - Millinocket



Source: Maine Office of the State Auditor.

Charges for Services and Other	1
Operating Grants and Contributions	2
Capital Grants and Contributions	3
Property Taxes	4
Excise and Miscellaneous Taxes	5
Interest and Penalties	6
State Revenue Sharing	7
Homestead and BETE Exemptions	8
Other State Aid	9
Unrestricted Investment Income	10
Miscellaneous	11

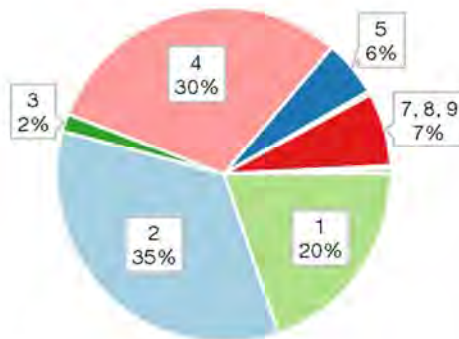
Revenues: FY2018 - East Millinocket



Source: Maine Office of the State Auditor.

Charges for Services and Other	1
Operating Grants and Contributions	2
Capital Grants and Contributions	3
Property Taxes	4
Excise and Miscellaneous Taxes	5
Interest and Penalties	6
State Revenue Sharing	7
Homestead and BETE Exemptions	8
Other State Aid	9
Unrestricted Investment Income	10
Miscellaneous	11

Revenues: FY2018 - Medway

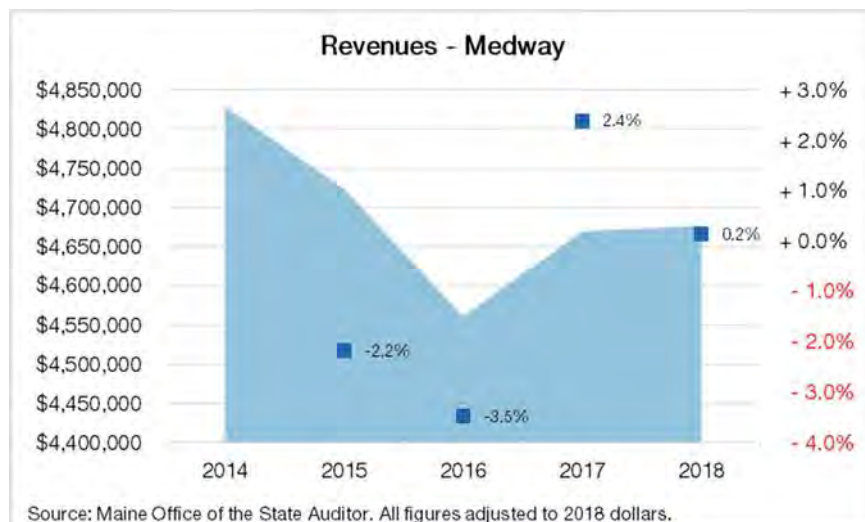
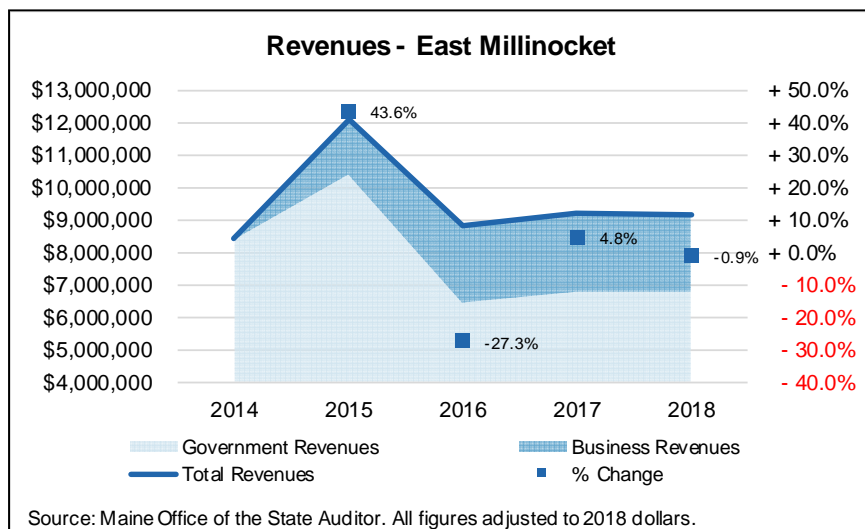
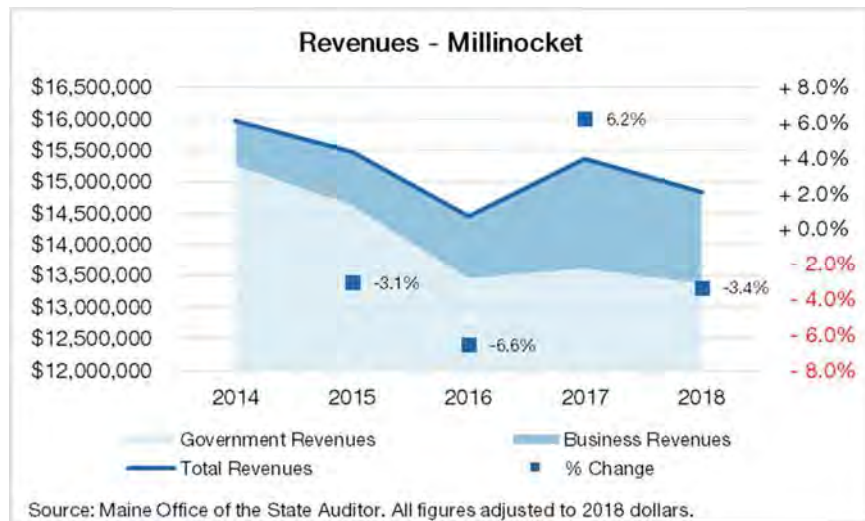


Source: Maine Office of the State Auditor.

Charges for Services and Other	1
Operating Grants and Contributions	2
Capital Grants and Contributions	3
Property Taxes	4
Excise and Miscellaneous Taxes	5
Interest and Penalties	6
State Revenue Sharing	7
Homestead and BETE Exemptions	8
Other State Aid	9
Unrestricted Investment Income	10
Miscellaneous	11

Between FY 2014 and FY 2018, municipal revenues have been generally stable when figures are adjusted to account for inflation. One anomaly occurred in FY 2015 in East Millinocket during repairs made to the Schenck High School Roof. Governmental capital assets activities during this period increased by \$2,966,322, cushioned by a \$2 million operations grant from the Gloria C MacKenzie Foundation.¹ Both Millinocket and East Millinocket have seen increases in business-type activities revenues, while both Millinocket and Medway have seen total revenues decrease when adjusted for inflation. This follows a dip in revenues during FY 2016 following failure to pay property taxes by Cate Street Capital (Great Northern Paper) amounting to \$1.1 million. In January of 2017, this 1,400-acre mill property was sold for \$1 to Our Katahdin, a non-profit organization dedicated to revitalizing the region's economy. Finally, Medway also experienced a notable dip in revenues in FY 2016; however, this decrease only amounted to a 3.5% of FY 2015 revenues.

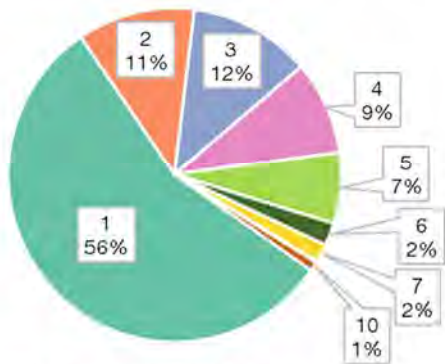
¹ https://www.huffpost.com/entry/gloria-mackenzie-school-maine_n_3646053 Accessed February 19, 2020.



Expenses generally drive revenues and are generally divided between services (such as police and safety, education, and intergovernmental taxes), capital outlays (money spent on maintaining, upgrading, or acquiring capital assets), and debt service. Payments on debt directly affect a town's credit rating, which can determine the availability of bonds, loans, and other lending services. Certain revenues are restricted to certain expenses, such as with education and pension funds.

In FY 2018, the bulk of municipal expenditures for all three towns were for education: 56% in Millinocket, 61% in East Millinocket, and 68% in Medway. These expenses are discussed further under Education Spending. Other major expenditures in the region were comparable across all three towns. These charts do not include business-type activities such as municipal water and sewer, East Millinocket ambulance services, and the enterprise fund that operates Millinocket Memorial Library.

Expenses: FY2018 - Millinocket



Source: Maine Office of the State Auditor.

Education	1
General Government	2
Protection	3
Town Services	4
Community Services	5
Maine State Retirement (on behalf)	6
County Tax	7
Interest on Debt	8
Unclassified	9
Capital Maintenance Expenses	10

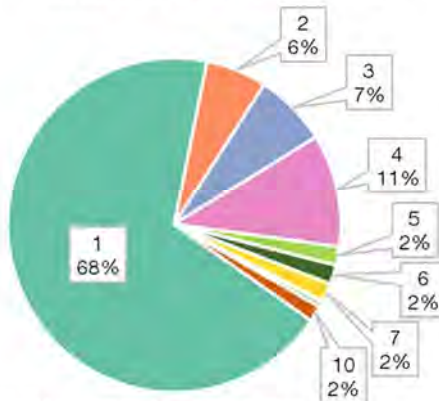
Expenses: FY2018 - East Millinocket



Source: Maine Office of the State Auditor.

Education	1
General Government	2
Protection	3
Town Services	4
Community Services	5
Maine State Retirement (on behalf)	6
County Tax	7
Interest on Debt	8
Unclassified	9
Capital Maintenance Expenses	10

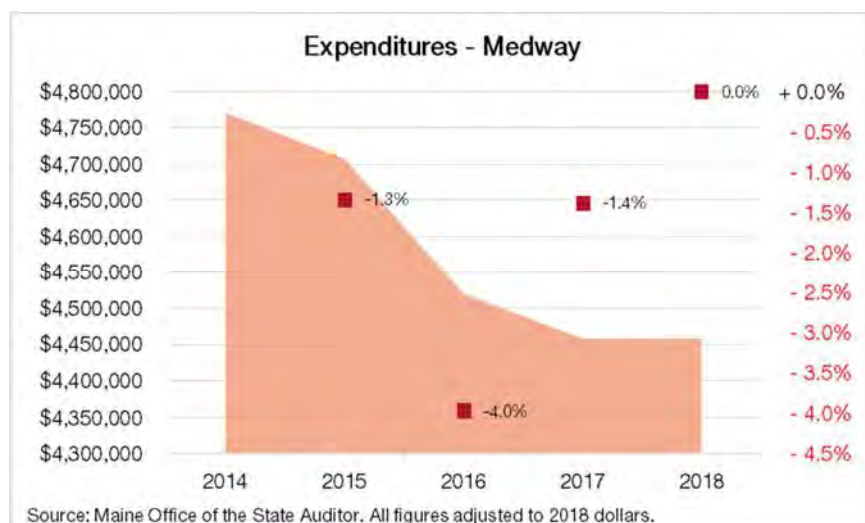
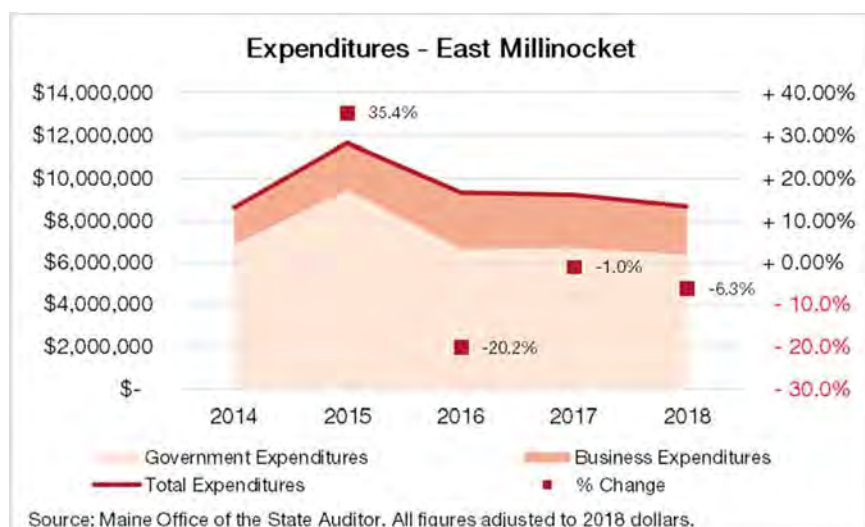
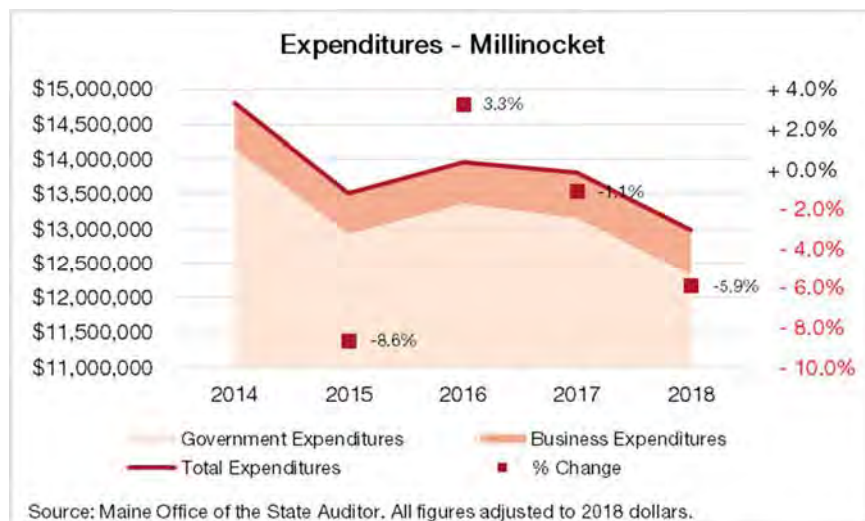
Revenues: FY2018 - Medway



Source: Maine Office of the State Auditor.

Education	1
General Government	2
Protection	3
Town Services	4
Community Services	5
Maine State Retirement (on behalf)	6
County Tax	7
Interest on Debt	8
Unclassified	9
Capital Maintenance Expenses	10

Just as revenues fluctuate somewhat from year to year, expenditures undergo similar variability. This variability, when adjusted for inflation, can provide a sense of a municipality's financial trends. Notable again is the 2016 default of Cate Street Capital in Millinocket, resulting in an increase in expenditures for the same year. Similarly, the nearly \$3 million increase in expenditures during East Millinocket's school roof repairs resulted in a 35.4% increase in FY 2016 expenditures and a consequent 20.2% decrease the following year. Expenses in Medway decreased after FY 2016 following the payment of a bond and several capital leases.



Net Position - Millinocket						
	2018			2017		
	Government	Business	Total	Government	Business	Total
Current and other assets	\$ 7,625,454	\$ 2,261,738	\$ 9,887,192	\$ 7,528,268	\$ 1,764,320	\$ 9,292,588
Capital Assets	\$ 9,890,874	\$ 4,938,713	\$ 14,829,587	\$ 9,776,202	\$ 4,548,550	\$ 14,324,752
Land & Improvements	\$ 5,700,385	\$ -	\$ 5,700,385	\$ 5,700,385	\$ -	\$ 5,700,385
Construction in Progress	\$ 556,833	\$ 381,893	\$ 938,726	\$ 98,609	\$ -	\$ 98,609
Buildings & Improvements	\$ 8,797,328	\$ 4,714,643	\$ 13,511,971	\$ 8,786,978	\$ 4,714,643	\$ 13,501,621
Infrastructure	\$ 3,441,980	\$ 7,063,322	\$ 10,505,302	\$ 3,441,980	\$ 6,983,942	\$ 10,425,922
Equipment & Vehicles	\$ 6,199,298	\$ 831,966	\$ 7,031,264	\$ 6,942,460	\$ 856,702	\$ 7,799,162
Interceptors	\$ -	\$ 1,113,395	\$ 1,113,395		\$ 1,113,395	\$ 1,113,395
Accumulated Depreceation	\$ (14,804,950)	\$ (9,199,219)	\$ (24,004,169)	\$ (15,194,209)	\$ (9,120,132)	\$ (24,314,341)
Total Assets	\$ 17,516,328	\$ 7,200,451	\$ 24,716,779	\$ 17,304,470	\$ 6,312,870	\$ 23,617,340
Deferred Outflows of Resources	\$ 385,947	\$ -	\$ 385,947	\$ 951,855	\$ -	\$ 951,855
Current Liabilities	\$ 839,184	\$ 198,602	\$ 1,037,786	\$ 1,053,157	\$ 62,792	\$ 1,115,949
Long-term Liabilities	\$ 16,401,793	\$ 818,996	\$ 17,220,789	\$ 18,921,950	\$ 832,206	\$ 19,754,156
Total Liabilities	\$ 17,240,977	\$ 1,017,598	\$ 18,258,575	\$ 19,975,107	\$ 894,998	\$ 20,870,105
Deferred Inflows of Resources	\$ 1,397,063	\$ -	\$ 1,397,063	\$ 102,204	\$ -	\$ 102,204
Net Position						
Net Investment in Capital Assets	\$ 8,043,157	\$ 4,183,460	\$ 12,226,617	\$ 7,245,272	\$ 3,779,876	\$ 11,025,148
Restricted	\$ 881,087	\$ 305,750	\$ 1,186,837	\$ 907,025	\$ -	\$ 907,025
Unrestricted	\$ (9,660,009)	\$ 1,693,643	\$ (7,966,366)	\$ (9,973,283)	\$ 1,637,996	\$ (8,335,287)
Total Net Position	\$ (735,765)	\$ 6,182,853	\$ 5,447,088	\$ (1,820,986)	\$ 5,417,872	\$ 3,596,886

Revenues - Millinocket						
	2018			2017		
	Government	Business	Total	Government	Business	Total
Charges for Services and Other	\$ 1,036,834	\$ 1,010,187	\$ 2,047,021	\$ 1,387,297	\$ 953,046	\$ 2,340,343
Operating Grants and Contributions	\$ 4,684,195	\$ 88,214	\$ 4,772,409	\$ 4,816,714	\$ 101,387	\$ 4,918,101
Capital Grants and Contributions	\$ 462,249	\$ 323,341	\$ 785,590	\$ 109,867	\$ 626,185	\$ 736,052
Property Taxes	\$ 5,218,619	\$ -	\$ 5,218,619	\$ 5,302,957	\$ -	\$ 5,302,957
Excise and Miscellaneous Taxes	\$ 796,374	\$ -	\$ 796,374	\$ 787,100	\$ -	\$ 787,100
Interest and Penalties	\$ 49,418	\$ -	\$ 49,418	\$ 55,925	\$ -	\$ 55,925
State Revenue Sharing	\$ 503,581	\$ -	\$ 503,581	\$ 458,150	\$ -	\$ 458,150
Homestead and BETE Exemptions	\$ 423,497	\$ -	\$ 423,497	\$ 321,781	\$ -	\$ 321,781
Other State Aid	\$ 60,518	\$ -	\$ 60,518	\$ 21,336	\$ -	\$ 21,336
Unrestricted Investment Income	\$ 61,349	\$ 8,676	\$ 70,025	\$ 36,110	\$ 4,511	\$ 40,621
Miscellaneous	\$ 74,501	\$ 43,376	\$ 117,877	\$ 46,099	\$ 30,748	\$ 76,847
Total	\$ 13,370,135	\$ 1,473,794	\$ 14,843,929	\$ 13,343,336	\$ 1,715,877	\$ 15,059,213

Expenses - Millinocket						
	2018			2017		
	Government	Business	Total	Government	Business	Total
General Government	\$ 517,996	\$ -	\$ 517,996	\$ 1,028,124	\$ -	\$ 1,028,124
Protection	\$ 1,460,073	\$ -	\$ 1,460,073	\$ 1,483,002	\$ -	\$ 1,483,002
Town Services	\$ 1,122,689	\$ -	\$ 1,122,689	\$ 1,146,211	\$ -	\$ 1,146,211
Community Services	\$ 853,017	\$ -	\$ 853,017	\$ 720,986	\$ -	\$ 720,986
Education	\$ 6,569,982	\$ -	\$ 6,569,982	\$ 6,548,467	\$ -	\$ 6,548,467
Maine State Retirement (on behalf)	\$ 269,883	\$ -	\$ 269,883	\$ 243,355	\$ -	\$ 243,355
Insurance/Fringe Benefits	\$ 890,135	\$ -	\$ 890,135	\$ 1,044,364	\$ -	\$ 1,044,364
County Tax	\$ 219,570	\$ -	\$ 219,570	\$ 268,251	\$ -	\$ 268,251
Food Service	\$ 309,923	\$ -	\$ 309,923	\$ 251,981	\$ -	\$ 251,981
Interest on Debt	\$ 12,638	\$ -	\$ 12,638	\$ 23,204	\$ -	\$ 23,204
Loss on Disposal of Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Unclassified	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Maintenance Expenses	\$ 108,627	\$ -	\$ 108,627	\$ 141,576	\$ -	\$ 141,576
Wastewater Treatment	\$ -	\$ 562,393	\$ 562,393	\$ -	\$ 579,195	\$ 579,195
Millinocket Memorial Library	\$ -	\$ 96,801	\$ 96,801	\$ -	\$ 59,436	\$ 59,436
Total	\$ 12,334,533	\$ 659,194	\$ 12,993,727	\$ 12,899,521	\$ 638,631	\$ 13,538,152

Net Position - East Millinocket						
	2018			2017		
	Government	Business	Total	Government	Business	Total
Current and other assets	\$ 5,098,351	\$ 797,643	\$ 5,895,994	\$ 4,573,272	\$ 574,211	\$ 5,147,483
Capital Assets	\$ 4,663,581	\$ 4,650,805	\$ 9,314,386	\$ 4,768,143	\$ 4,716,571	\$ 9,484,714
Land	\$ 96,266	\$ 1,456	\$ 97,722	\$ 96,266	\$ 1,456	\$ 97,722
Construction in Progress	\$ 15,828	\$ 796,352	\$ 812,180	\$ 52,620	\$ 708,664	\$ 761,284
Buildings & Improvements	\$ 7,188,007	\$ 112,377	\$ 7,300,384	\$ 7,049,725	\$ 112,377	\$ 7,162,102
Infrastructure	\$ -	\$ 6,984,377	\$ 6,984,377	\$ -	\$ 6,984,377	\$ 6,984,377
Equipment	\$ 1,179,623	\$ 450,804	\$ 1,630,427	\$ 1,170,592	\$ 450,804	\$ 1,621,396
Vehicles	\$ 1,127,869	\$ 833,838	\$ 1,961,707	\$ 1,127,869	\$ 822,363	\$ 1,950,232
Accumulated Depreciation	\$ (4,944,012)	\$ (4,528,399)	\$ (9,472,411)	\$ (4,728,929)	\$ (4,363,470)	\$ (9,092,399)
Total Assets	\$ 9,761,933	\$ 5,448,448	\$15,210,381	\$ 9,341,415	\$ 5,290,782	\$14,632,197
Deferred Outflows of Resources	\$ 645,594	\$ -	\$ 645,594	\$ 554,679	\$ -	\$ 554,679
Current Liabilities	\$ 402,242	\$ 928,892	\$ 1,331,134	\$ 291,349	\$ 733,470	\$ 1,024,819
Long-term Liabilities	\$ 3,540,354	\$ 286,933	\$ 3,827,287	\$ 3,580,270	\$ 383,278	\$ 3,963,548
Total Liabilities	\$ 3,942,596	\$ 1,215,825	\$ 5,158,421	\$ 3,871,619	\$ 1,116,748	\$ 4,988,367
Deferred Inflows of Resources	\$ 116,327	\$ -	\$ 116,327	\$ 110,995	\$ -	\$ 110,995
Net Position						
Net Investment in Capital Assets	\$ 4,456,931	\$ 3,586,002	\$ 8,042,933	\$ 4,567,905	\$ 3,712,551	\$ 8,280,456
Restricted	\$ 978,077	\$ -	\$ 978,077	\$ 923,757	\$ 165,982	\$ 1,089,739
Unrestricted	\$ 913,596	\$ 646,621	\$ 1,560,217	\$ 421,818	\$ 295,501	\$ 717,319
Total Net Position	\$ 6,348,604	\$ 4,232,623	\$10,581,227	\$ 5,913,480	\$ 4,174,034	\$10,087,514

Revenues - East Millinocket						
	2018			2017		
	Government	Business	Total	Government	Business	Total
Charges for Services and Other	\$ 1,204,219	\$ 2,372,866	\$ 3,577,085	\$ 1,198,568	\$ 2,518,954	\$ 3,717,522
Operating Grants and Contributions	\$ 1,927,550	\$ 47,055	\$ 1,974,605	\$ 2,139,700	\$ -	\$ 2,139,700
Capital Grants and Contributions	\$ 420,166	\$ 43,519	\$ 463,685	\$ 210,956	\$ -	\$ 210,956
Property Taxes	\$ 2,364,709	\$ -	\$ 2,364,709	\$ 2,360,452	\$ -	\$ 2,360,452
Excise and Miscellaneous Taxes	\$ 281,043	\$ -	\$ 281,043	\$ 278,182	\$ -	\$ 278,182
Interest and Penalties	\$ 17,770	\$ -	\$ 17,770	\$ 29,945	\$ -	\$ 29,945
State Revenue Sharing	\$ 210,628	\$ -	\$ 210,628	\$ 172,721	\$ -	\$ 172,721
Homestead and BETE Exemptions	\$ 177,738	\$ -	\$ 177,738	\$ 118,210	\$ -	\$ 118,210
Other State Aid	\$ 18,929	\$ -	\$ 18,929	\$ 14,831	\$ -	\$ 14,831
Unrestricted Investment Income	\$ 16,179	\$ 6,313	\$ 22,492	\$ 10,051	\$ 5,701	\$ 15,752
Miscellaneous	\$ 73,377	\$ -	\$ 73,377	\$ 48,006	\$ -	\$ 48,006
Loss on Disposal of Capital Assets	\$ -	\$ (48,292)	\$ (48,292)	\$ (9,618)	\$ (57,423)	\$ (67,041)
Transfers	\$ 89,618	\$ (89,618)	\$ -	\$ 85,455	\$ (85,455)	\$ -
Total	\$ 6,801,926	\$ 2,331,843	\$ 9,133,769	\$ 6,657,459	\$ 2,381,777	\$ 9,039,236

Expenses - East Millinocket						
	2018			2017		
	Government	Business	Total	Government	Business	Total
General Government	\$ 637,911	\$ -	\$ 637,911	\$ 594,308	\$ -	\$ 594,308
Public Safety	\$ 627,047	\$ -	\$ 627,047	\$ 681,975	\$ -	\$ 681,975
Roads	\$ 341,576	\$ -	\$ 341,576	\$ 339,510	\$ -	\$ 339,510
Health, Social Services, and Recreation	\$ 368,467	\$ -	\$ 368,467	\$ 340,890	\$ -	\$ 340,890
Library	\$ -	\$ -	\$ -	\$ 1,111	\$ -	\$ 1,111
Education	\$ 3,887,848	\$ -	\$ 3,887,848	\$ 4,276,612	\$ -	\$ 4,276,612
Maine State Retirement (on behalf)	\$ 175,494	\$ -	\$ 175,494	\$ 165,112	\$ -	\$ 165,112
Special Projects	\$ -	\$ -	\$ -	\$ 2,457	\$ -	\$ 2,457
Cemetery	\$ 14,763	\$ -	\$ 14,763	\$ 14,909	\$ -	\$ 14,909
County Tax	\$ 88,437	\$ -	\$ 88,437	\$ 97,400	\$ -	\$ 97,400
Unclassified	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Maintenance Expenses	\$ 225,259	\$ -	\$ 225,259	\$ 53,649	\$ -	\$ 53,649
Interest on Debt	\$ -	\$ -	\$ -	\$ 3,389	\$ -	\$ 3,389
Wastewater Fund	\$ -	\$ 379,724	\$ 379,724	\$ -	\$ 384,933	\$ 384,933
Water Works Fund	\$ -	\$ 269,888	\$ 269,888	\$ -	\$ 236,335	\$ 236,335
Ambulance Fund	\$ -	\$ 1,623,642	\$ 1,623,642	\$ -	\$ 1,849,230	\$ 1,849,230
Total	\$ 6,366,802	\$ 2,273,254	\$ 8,640,056	\$ 6,570,322	\$ 2,470,498	\$ 9,040,820

Net Position - Medway		
	2018	2017
Current and other assets	\$ 2,464,662	\$ 2,331,689
Capital Assets	\$ 3,108,531	\$ 3,036,025
Land	\$ 431,500	\$ 431,500
Construction in Progress	\$ 129,333	\$ -
Buildings	\$ 3,169,236	\$ 3,161,736
Land Improvements	\$ 477,760	\$ 462,805
Infrastructure	\$ 389,000	\$ 389,000
Equipment	\$ 512,093	\$ 488,293
Vehicles	\$ 1,260,012	\$ 1,222,453
Accumulated Depreciation	\$ (3,260,403)	\$ (3,119,762)
Total Assets	\$ 5,573,193	\$ 5,367,714
Deferred Outflows of Resources	\$ 326,828	\$ 410,652
Current Liabilities	\$ 121,456	\$ 107,612
Long-term Liabilities	\$ 1,080,236	\$ 1,037,991
Capital Lease Payable	\$ 90,900	\$ 63,480
Bonds Payable	\$ 240,000	\$ 300,000
Total Liabilities	\$ 1,201,692	\$ 1,145,603
Deferred Inflows of Resources	\$ 226,292	\$ 134,943
Net Position		
Net Investment in Capital Assets	\$ 2,777,631	\$ 2,672,545
Restricted	\$ 686,094	\$ 918,832
Unrestricted	\$ 1,008,312	\$ 906,443
Total Net Position	\$ 4,472,037	\$ 4,497,820

Revenues - Medway		
	2018	2017
Charges for Services and Other	\$ 921,720	\$ 964,160
Operating Grants and Contributions	\$ 1,612,561	\$ 1,427,792
Capital Grants and Contributions	\$ 80,018	\$ 72,000
Property Taxes	\$ 1,418,388	\$ 1,404,109
Excise and Miscellaneous Taxes	\$ 255,858	\$ 266,590
Interest and Penalties	\$ 16,650	\$ 18,912
Grants and Contributions, Not Restricted	\$ 335,892	\$ 310,256
Unrestricted Investment Income	\$ 16,248	\$ 8,352
State Contribution to Pension	\$ -	\$ 102,526
Miscellaneous	\$ 19,941	\$ 3,809
Total	\$ 4,677,276	\$ 4,578,506
Expenses - Medway		
	2018	2017
Administration	\$ 263,659	\$ 272,860
Protection	\$ 316,106	\$ 318,653
Public Works	\$ 490,063	\$ 451,715
Recreation	\$ 70,622	\$ 63,823
Health, Welfare, and Sanitation	\$ 9,660	\$ 7,499
Education	\$ 2,978,137	\$ 2,937,818
On Behalf Payments - State of Maine	\$ 81,835	\$ 71,786
School Lunch Program	\$ 72,874	\$ 68,736
County Tax	\$ 80,494	\$ 78,524
Unclassified	\$ 21,762	\$ 24,116
Grants and Contributions	\$ -	\$ -
Interest on Long-Term Debt	\$ 5,505	\$ 47
Capital Outlay	\$ 67,456	\$ 75,203
Total	\$ 4,458,173	\$ 4,370,780

Capital Assets and Debt

Capital assets are properties, buildings, equipment, and infrastructure that a municipality owns, operates, and maintains. Government capital assets often differ from business-type capital assets in both type and in overall value. In FY 2018, Millinocket's governmental capital assets were generally divided between Land and Improvements (23.1%), Buildings and Improvements (35.6%), Infrastructure (13.9%), and Equipment and Vehicles (25.1%), while business-type capital assets were primarily in Infrastructure (58.0%) and Buildings and Improvements (33.4%). Capital assets accounted for 57% of Millinocket's total governmental assets and 69% of its business-type assets, with the remainder being cash and other current assets. The town estimated total depreciation of these assets to be over \$24 million, or 61.9% of total capital asset value. Capital maintenance expenses amounted to \$108,627, 23% lower than FY 2017 but up 121% from FY 2016.

East Millinocket's capital outlays were very different in FY 2018 with the bulk of government capital assets in Buildings and Improvements (74.8%) and in Equipment and Vehicles (24.0%), while Infrastructure (76.1%) was the bulk of business-type capital assets. Capital assets accounted for 48% of East Millinocket's total governmental assets and 85% of its business-type assets, again with the remainder being cash and other current assets. The town estimated total depreciation of these assets to be \$9.5 million, or 50.4% of total capital asset value. Capital maintenance expenses amounted to \$225,259, 320% higher than FY 2017, due to expenditures on Schenk School and on the wastewater treatment facility.

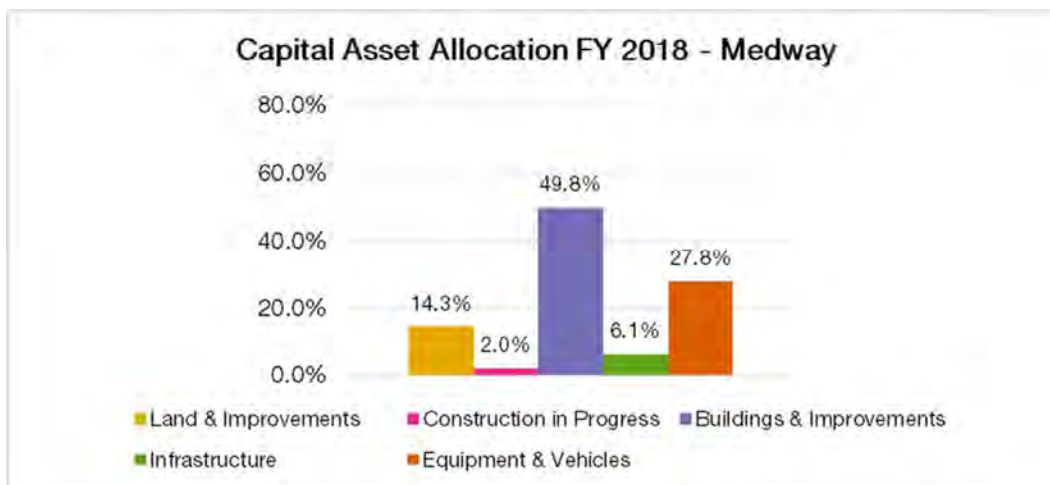
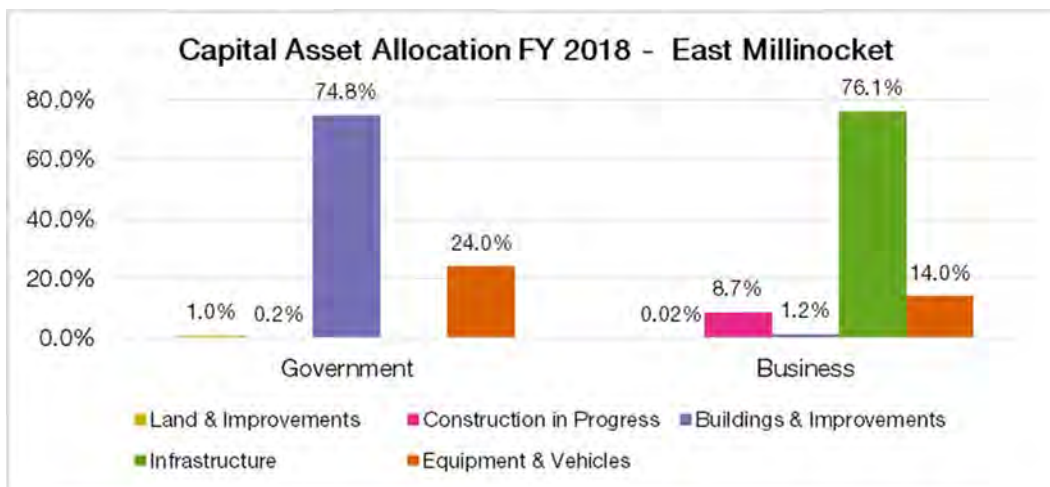
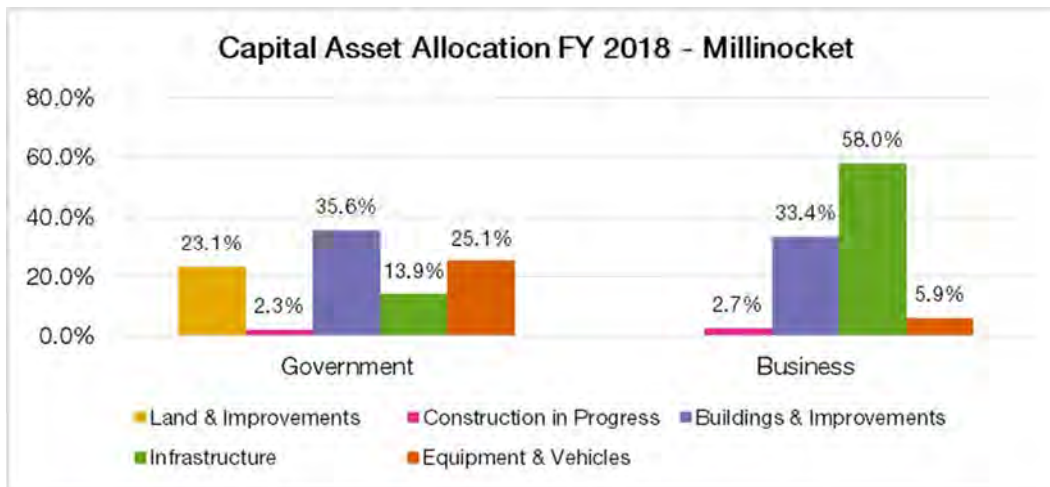
Medway's capital asset profile was similar to Millinocket's, with Building and Improvements accounting for 49.8%, Equipment and Vehicles accounting for 27.8%, and Land and Improvements accounting for 14.3% of all capital assets. Capital assets accounted for 56% of Medway's total assets. The town estimated total depreciation of these assets to be \$3.3 million, or 51.2% of total capital asset value. Capital maintenance expenses amounted to \$67,456, 10% lower than FY 2017 and 40% lower than FY 2016.

At the end of the Fiscal Year 2019, the Town of Millinocket's indebtedness was split between governmental activities and business-type activities. The ending balance for long-term liabilities within governmental activities was \$13.6 million. For business-type activities, the long-term liabilities had an ending balance of \$585,748. Other long-term debt was from general obligation bonds from direct borrowings which totaled \$1.1 million for governmental activities and \$524,879 for business-type activities. Millinocket's short-term debt had an ending balance of \$846,274 from a bond anticipation note within the Wastewater Fund. In accordance with the State of Maine, the town is subject to a statutory limitation of its general long-term debt equal to 15% of the State's valuation of the town. Millinocket's outstanding long-term debt of \$1,680,247 in June 2019 was within the statutory limit.

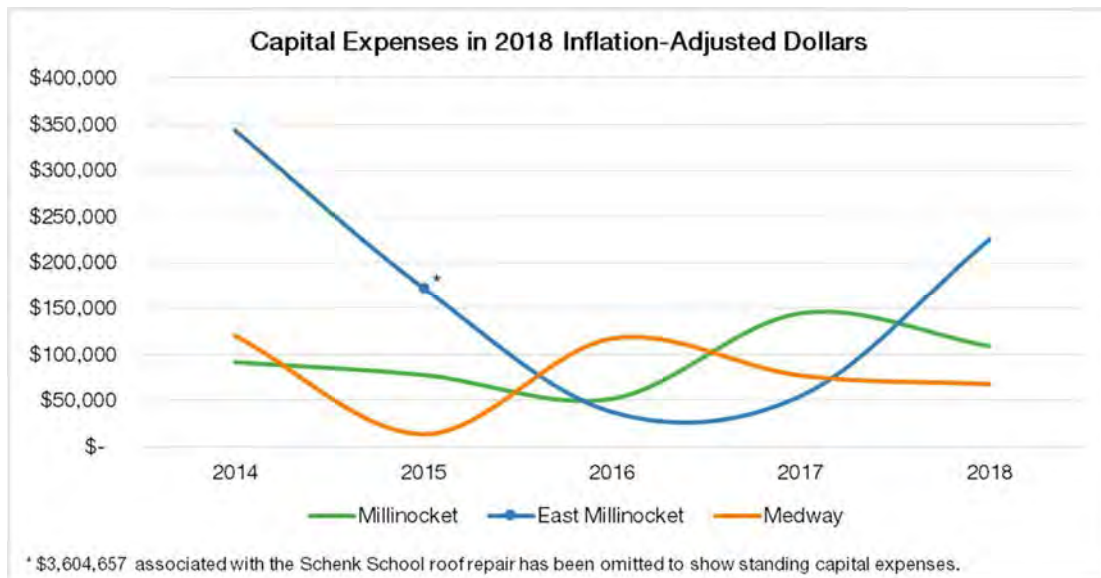
East Millinocket's long-term debt for the Fiscal Year 2019 was \$92,882 for governmental activities and \$507,651 for business-type activities. The town's bonded debt of \$600,533 was well below its debt limit of \$9,142,500, which is 15% of East Millinocket's total state valuation. Of the \$925,642 in new bonds and capital leases that the town issued in 2019, \$651,656 was repaid between governmental and business-type activities. The town has no outstanding long-term debt supported by property tax revenue.

East Millinocket's short-term debt, consisting of a bond anticipation note with an outstanding balance of \$5,241,000 was issued in its wastewater fund to support the construction of a new wastewater treatment plant.

Medway's long-term debt totaled \$284,910 for the Fiscal Year 2019. The town's long-term debt consists of a general obligation bond and four capital leases from various lending sources. The interest on Medway's long-term debt is \$5,879. Long-term liabilities, which include a general obligation bond, capital leases payable, compensated absences liability, net pension liability, and other post-employment benefit obligations (OPEB) total \$1,584,358 in 2019. Similar to Millinocket and East Millinocket, Medway was in compliance with state limitations regarding municipal debt incurrences.



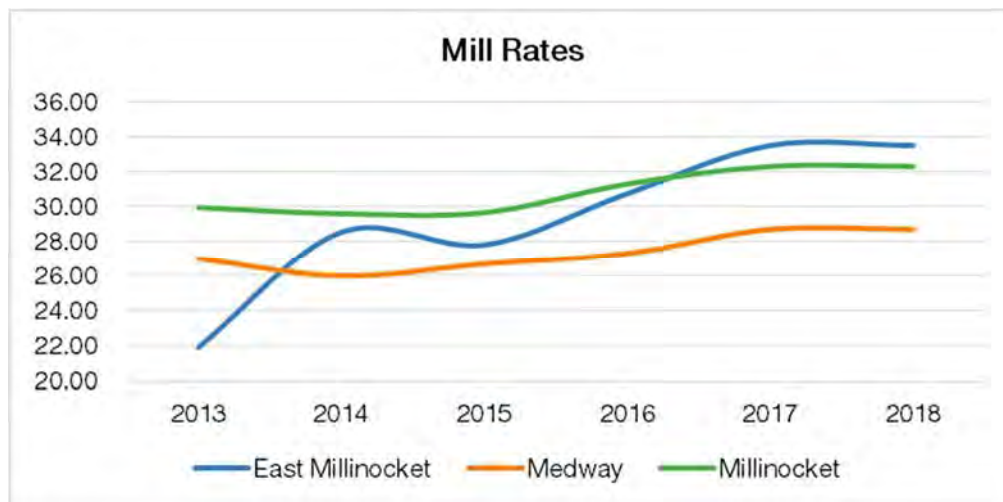
Capital expenses in the region often fluctuate depending on changing needs. When adjusted for inflation, the overall trend for each town is relatively flat, save for East Millinocket which in 2015 spent over \$300,000 in capital reserve funds on school roof repairs, and in 2018 spent roughly \$100,000 in general school repairs and \$87,688 on the wastewater treatment facility.



Mill Rates

After the town's budget has been approved and all applicable state and local revenues are deducted from the listed expenditures, the town arrives at the dollar amount that will need to be raised through tax revenues. This amount is called the net commitment or appropriation. The local assessor arrives at a valuation for each taxable property in the town and the taxpayers are assessed their share of the tax burden through a mathematical calculation. The total appropriation is then divided by the total taxable assessed valuation of the town to arrive at the minimum tax rate. The mill rate – short for millage – is the amount of tax levied per \$1,000 of assessed value. East Millinocket and Millinocket have noted significant changes to the mil rate with the closure of the major employer in their communities. Medway's limited municipal outlay has translated to increases that are more modest.

	2010	2018	% Change
East Millinocket	23.40	33.50	+ 43.2%
Medway	24.50	28.70	+ 17.1%
Millinocket	23.20	32.30	+ 39.2%



Valuations

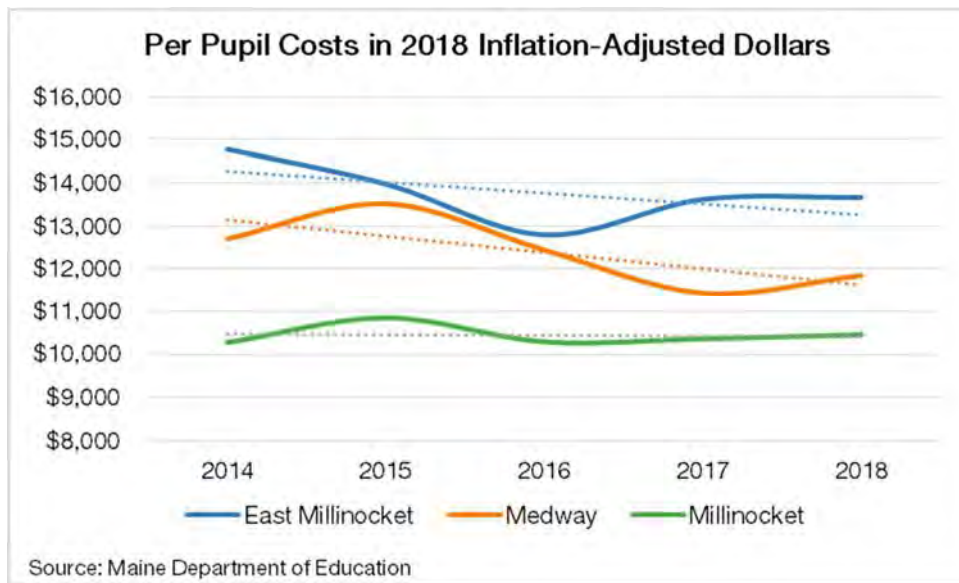
The primary revenue source for any community is through the taxation of real and personal property within the jurisdiction. Taxes are assessed to property owners according to “just value” of their property – also commonly known as fair market value. The municipal tax base of Millinocket has been historically characterized by the existence of Great Northern Paper (GNP) as the town’s primary taxpayer. Similarly, for East Millinocket, the mill was the largest contributor to the town’s tax revenue. For Medway, the largest contributor to the town’s tax revenue base has been formerly Bangor Hydro, now Emera Maine.

Municipal Valuation Summary						
Municipality	Commitment	Mill Rate	Total Taxable Valuation	Taxable Land Valuation	Taxable Buildings Valuation	Total Taxable Personal Property
2017						
East Millinocket	\$ 2,370,790	33.50	\$ 70,769,849	\$ 21,443,444	\$ 33,877,505	\$ 15,448,900
Medway	\$ 1,423,205	28.70	\$ 49,589,031	\$ 19,064,560	\$ 26,583,071	\$ 3,941,400
Millinocket	\$ 5,264,151	32.30	\$ 162,976,800	\$ 35,097,400	\$ 85,505,600	\$ 42,373,800
2016						
East Millinocket	\$ 2,367,042	30.75	\$ 76,976,991	\$ 40,865,823	\$ 35,357,146	\$ 754,022
Medway	\$ 1,406,567	27.30	\$ 51,522,601	\$ 18,854,360	\$ 28,476,941	\$ 4,191,300
Millinocket	\$ 5,322,552	31.30	\$ 170,049,600	\$ 69,468,800	\$ 87,893,700	\$ 12,687,100
2015						
East Millinocket	\$ 2,231,541	27.80	\$ 80,271,268	\$ 21,764,180	\$ 41,823,885	\$ 16,683,203
Medway	\$ 1,425,548	26.70	\$ 53,391,326	\$ 18,943,960	\$ 29,994,966	\$ 4,452,400
Millinocket	\$ 5,235,773	29.66	\$ 176,526,400	\$ 34,725,700	\$ 98,251,800	\$ 43,548,900
2014						
East Millinocket	\$ 2,197,337	28.54	\$ 76,991,516	\$ 34,662,257	\$ 35,883,119	\$ 6,446,140
Medway	\$ 1,436,372	26.00	\$ 55,245,081	\$ 18,260,585	\$ 30,490,196	\$ 6,494,300
Millinocket	\$ 6,261,954	29.60	\$ 211,552,500	\$ 34,248,000	\$ 101,101,500	\$ 76,203,000
2013						
East Millinocket	\$ 2,285,922	21.93	\$ 104,237,252	\$ 20,605,317	\$ 56,927,400	\$ 26,704,535
Medway	\$ 1,430,530	27.00	\$ 52,982,593	\$ 17,901,662	\$ 30,290,831	\$ 4,790,100
Millinocket	\$ 7,213,143	29.95	\$ 240,839,500	\$ 34,311,700	\$ 101,347,100	\$ 105,180,700
Source: Maine Revenue Service						

Municipal Valuation Summary, Cont'd							
Municipality	Taxable Machinery & Equipment	Taxable Business Equipment	Other Personal Property	Total # Home-stead	Total Value Home-stead	Total # BETE	Total Value BETE
2017							
East Millinocket	\$ 15,392,170	\$ 34,830	\$ 21,900	514	\$ 10,143,049	14	\$ 466,500
Medway	\$ 3,614,200	\$ 113,000	\$ 214,200	462	\$ 8,849,460	19	\$ 4,288,700
Millinocket	\$ 35,974,200	\$ 1,715,800	\$ 4,683,800	1,268	\$ 24,830,600	31	\$ 1,097,500
2016							
East Millinocket	\$ 233,541	\$ 101,022	\$ 419,459	512	\$ 7,619,954	10	\$ 67,200
Medway	\$ 3,649,700	\$ 112,300	\$ 429,300	463	\$ 6,731,020	17	\$ 4,537,800
Millinocket	\$ 6,159,000	\$ 2,050,900	\$ 4,477,200	1,302	\$ 19,292,800	27	\$ 1,004,800
2015							
East Millinocket	\$ 16,534,364	\$ 100,252	\$ 48,587	526	\$ 5,247,670	5	\$ 60,570
Medway	\$ 4,103,100	\$ 102,900	\$ 246,400	466	\$ 4,585,010	13	\$ 3,974,300
Millinocket	\$ 36,564,300	\$ 2,284,100	\$ 4,700,500	1,322	\$ 13,133,000	16	\$ 1,606,000
2014							
East Millinocket	\$ 6,239,953	\$ 160,240	\$ 45,947	528	\$ 5,267,670	7	\$ 2,254,317
Medway	\$ 6,200,100	\$ 96,700	\$ 197,500	485	\$ 4,777,210	17	\$ 1,924,800
Millinocket	\$ 68,796,800	\$ 2,326,500	\$ 5,079,700	1,332	\$ 13,232,500	45	\$ 14,346,500
2013							
East Millinocket	\$ 9,952,874	\$ 158,449	\$ 16,593,212	546	\$ 5,455,400	7	\$ 4,781,037
Medway	\$ -	\$ -	\$ 4,790,100	486	\$ 4,797,810	28	\$ 4,104,100
Millinocket	\$ 97,574,400	\$ 2,411,900	\$ 5,194,400	1,366	\$ 13,574,400	47	\$ 15,389,400
Source: Maine Revenue Service							

Education Spending

For all three towns, education spending accounts for over half of all municipal expenditures. These funds are matched by the state to finance the region's school system in full. Demographic projections for the region show a steady decline in the population of young people that will, in the future, raise the possibility of school consolidations to reduce overall education costs. However, examining the inflation-adjusted per-pupil costs for the three towns, each is showing an overall trend of decreasing costs. While these trends are not statistically significant, it may indicate that efforts to stabilize education spending and school operations are succeeding, despite declining enrollment.



Education Subsidy					
	Town Code	SAU	Total Allocation	Local Contribution	Adjusted State Contribution
2018-2019 FY19	136	East Millinocket	\$ 2,150,915.78	\$ 606,975.75	\$ 1,543,940.03
	271	Medway	\$ 1,588,151.10	\$ 518,897.25	\$ 1,069,253.85
	277	Millinocket	\$ 4,848,179.03	\$ 1,592,008.25	\$ 3,256,170.78
2017-2018 FY18	136	East Millinocket	\$ 2,116,000.04	\$ 731,094.00	\$ 1,384,906.04
	271	Medway	\$ 1,571,754.14	\$ 489,352.50	\$ 1,082,401.64
	277	Millinocket	\$ 4,789,447.05	\$ 1,585,174.50	\$ 3,204,272.55
2016-2017 FY17	136	East Millinocket	\$ 2,250,712.25	\$ 811,878.34	\$ 1,438,833.91
	271	Medway	\$ 1,646,346.94	\$ 493,711.66	\$ 1,152,635.28
	277	Millinocket	\$ 4,647,020.11	\$ 1,547,811.66	\$ 3,099,208.45
2015-2016 FY16	136	East Millinocket	\$ 2,239,148.30	\$ 830,681.33	\$ 1,408,466.97
	271	Medway	\$ 1,618,252.98	\$ 491,468.17	\$ 1,126,784.81
	277	Millinocket	\$ 4,535,349.92	\$ 1,614,451.67	\$ 2,920,898.25
2014-2015 FY15	136	East Millinocket	\$ 2,066,024.68	\$ 824,782.50	\$ 1,241,242.18
	271	Medway	\$ 1,627,405.55	\$ 487,620.00	\$ 1,139,785.55
	277	Millinocket	\$ 4,756,296.87	\$ 1,627,087.50	\$ 3,129,209.37

Source: Maine Department of Education

School Operating Costs						
	SAU	Tuition & Assessment		Net Operating Costs		
		Elementary	Secondary	Elementary	Secondary	Total
2017-2018 FY18	East Millinocket	\$ 430,095.74	\$ 460,139.53	\$ 1,769,682.69	\$ 949,574.64	\$ 2,719,257.33
	Medway	\$ 602,333.35	\$ -	\$ 1,274,533.15	\$ 596,950.05	\$ 1,871,483.20
	Millinocket	\$ 126,148.08	\$ 43,580.49	\$ 2,697,234.77	\$ 2,505,004.90	\$ 5,202,239.67
2016-2017 FY17	East Millinocket	\$ 383,133.08	\$ 476,965.31	\$ 1,873,009.39	\$ 957,680.70	\$ 2,830,690.09
	Medway	\$ 641,706.11	\$ -	\$ 1,090,840.49	\$ 617,966.68	\$ 1,708,807.17
	Millinocket	\$ 206,996.48	\$ 108,911.74	\$ 2,632,002.38	\$ 2,342,495.41	\$ 4,974,497.79
2015-2016 FY16	East Millinocket	\$ 463,574.13	\$ 511,164.07	\$ 1,630,648.95	\$ 866,875.88	\$ 2,497,524.83
	Medway	\$ 559,866.90	\$ -	\$ 1,208,923.12	\$ 633,415.21	\$ 1,842,338.33
	Millinocket	\$ 210,214.72	\$ 80,591.39	\$ 2,527,283.66	\$ 2,321,060.94	\$ 4,848,344.60
2014-2015 FY15	East Millinocket	\$ 514,327.56	\$ 542,261.27	\$ 1,735,789.26	\$ 953,857.12	\$ 2,689,646.38
	Medway	\$ 671,460.22	\$ -	\$ 1,395,434.01	\$ 638,624.32	\$ 2,034,058.33
	Millinocket	\$ 98,210.78	\$ 54,204.06	\$ 2,638,528.77	\$ 2,342,282.48	\$ 4,980,811.25
2013-2014 FY14	East Millinocket	\$ 520,028.72	\$ 576,091.11	\$ 1,658,378.54	\$ 1,046,294.25	\$ 2,704,672.79
	Medway	\$ 644,088.72	\$ -	\$ 1,336,932.03	\$ 657,766.29	\$ 1,994,698.32
	Millinocket	\$ 223,635.00	\$ 129,528.64	\$ 2,475,193.97	\$ 2,470,797.46	\$ 4,945,991.43
Source: Maine Department of Education						

School Operating Costs, Cont'd							
	SAU	Student Count			Per Pupil Operating Costs		
		Elementary	Secondary	Total	Elementary	Secondary	Total
2017-2018 FY18	East Millinocket	134.0	65.0	199.0	\$ 13,206.59	\$ 14,608.84	\$ 13,664.61
	Medway	107.0	51.0	158.0	\$ 11,911.52	\$ 11,704.90	\$ 11,844.83
	Millinocket	340.0	158.0	498.0	\$ 7,933.04	\$ 15,854.46	\$ 10,446.26
2016-2017 FY17	East Millinocket	150.0	62.0	212.0	\$ 12,486.73	\$ 15,446.46	\$ 13,352.31
	Medway	98.5	54.0	152.5	\$ 11,074.52	\$ 11,443.83	\$ 11,205.29
	Millinocket	343.5	146.5	490.0	\$ 7,662.31	\$ 15,989.73	\$ 10,152.04
2015-2016 FY16	East Millinocket	143.5	61.5	205.0	\$ 11,363.41	\$ 14,095.54	\$ 12,183.05
	Medway	99.0	56.5	155.5	\$ 12,211.34	\$ 11,210.89	\$ 11,847.83
	Millinocket	344.0	151.0	495.0	\$ 7,346.75	\$ 15,371.26	\$ 9,794.64
2014-2015 FY15	East Millinocket	134.5	69.5	204.0	\$ 12,905.50	\$ 13,724.56	\$ 13,184.54
	Medway	106.5	53.0	159.5	\$ 13,102.67	\$ 12,049.52	\$ 12,752.72
	Millinocket	321.0	166.0	487.0	\$ 8,219.72	\$ 14,110.14	\$ 10,227.54
2013-2014 FY14	East Millinocket	130.0	64.0	194.0	\$ 12,756.76	\$ 16,348.35	\$ 13,941.61
	Medway	106.0	60.5	166.5	\$ 12,612.57	\$ 10,872.17	\$ 11,980.17
	Millinocket	343.5	167.0	510.5	\$ 7,205.80	\$ 14,795.19	\$ 9,688.52
Source: Maine Department of Education							

Capital Investment Plan

Town of Millinocket Five-Year Capital Investment Plan									
Item	Year	Est Life	FY21	FY22	FY23	FY24	FY25	Est. Cost	Potential Funding Source
FIRE & AMBULANCE									
Ambulance - F450 Type III (A-3) (147,465 miles)	2009	10	\$180,000					\$180,000	Town Revenues & Taxes
Ambulance - F450 Type III (A-3) (65,000 miles)	2014	10				\$180,000		\$180,000	Town Revenues & Taxes
Ambulance - Power Cot						\$20,000	\$20,000	\$40,000	Town Revenues & Taxes
Rescue Sled - Snowmobile	1997	25						-	Town Revenues & Taxes
Rescue Sled - Trailer	1997	25						-	Town Revenues & Taxes
Rescue Boat Motor	2000	25			\$35,000			\$35,000	Town Revenues & Taxes
Cardiac Monitor LIFEPAK	2006	15	\$36,000					\$36,000	Town Revenues & Taxes
Generator - Office	1986	30						-	
TOTAL			\$252,000		\$35,000	\$200,000	\$20,000	\$471,000	
POLICE									
Police Cruiser - AWD SUV	2017	4		\$35,000				\$35,000	Town Revenues & Taxes
Police Cruiser - AWD Sedan	2015	4			\$35,000			\$35,000	Town Revenues & Taxes
Police Cruiser - AWD SUV	2016	4	\$35,000					\$35,000	Town Revenues & Taxes
Officer Vests (Possible Grant Money Available)	2015	5						-	
Service Weapons (Gloc 45 Model 21)	2012	15						-	
TOTAL			\$35,000	\$35,000	\$35,000		-	\$105,000	
PUBLIC WORKS									
Heavy Equipment (Note A)								-	
Transfer Site - Replace Trash Trailer	2011			\$65,000				\$65,000	Town Revenues & Taxes
Transfer Site - Replace Trash Trailer	2012				\$65,000			\$65,000	Town Revenues & Taxes
Replace Equipment Trailer (Custom)	2001	20			\$25,000			\$25,000	Town Revenues & Taxes
Replace Plow/Dump Truck (Sterling #11)	2006	15				\$150,000		\$150,000	Town Revenues & Taxes
GMC 1-Ton Truck w/Plow Replacement	2009	10	\$60,000					\$60,000	Town Revenues & Taxes
Replace John Deere 310 Backhoe	2002	20		\$85,000				\$85,000	Town Revenues & Taxes
Replace Plow/Dump Truck (Sterling #12)	2006	15					\$150,000	\$150,000	Town Revenues & Taxes
TOTAL			\$60,000	\$150,000	\$90,000	\$150,000	\$150,000	\$622,500	
RECREATION DEPARTMENT									
Tennis Court Repairs								\$46,435	Town Revenues & Taxes
LED Lighting								\$55,000	Town Revenues & Taxes
Infield Renovations (3 Fields)								\$22,190	Town Revenues & Taxes
Basketball Court Replacement								\$28,000	Town Revenues & Taxes
Timbers & Safety Surface for Playground		Review FY20 CF						\$27,200	Town Revenues & Taxes
Total Unassigned Budget								\$252,335	Town Revenues & Taxes
TOTAL								\$471,160	

AIRPORT GRANT PROJECTS	Entitlem ent	State Share							
Entitlement funds requires the Town to pay the expenses up front and then file for reimbursement.									
Class III Rotary Plow with Carrier Vehicle & Wildlife Hazard Site Visit	\$488,700	\$27,150	\$543,000						Grant/Town Rev & Taxes
Airport Master Plan Update & ALP	\$152,000	\$7,600	\$167,200						Grant
TOTAL	\$640,700	\$34,750	\$710,200						
GRAND TOTAL CAPITAL BUDGET	E1300.9504		\$343,500	\$205,000	\$170,000	\$367,500	\$180,000		
GRAND TOTAL AIRPORT GRANT BUDGET	E1301-3118		\$710,200						
HEAVY EQUIPMENT RESERVE BUDGET	E1300.9502		\$15,000						
FUND BALANCE AND CARRY FORWARDS									
Assigned Fund Balance - Heavy Equipment Reserve		R0101.026							
Grant Match (State and Federal)			-\$675,450						
Airport Grant Reserve		R0101.0922	-\$16,800						
Total Capital Budget Raised by Taxes			\$376,450						
Notes:	(A) Equipment purchased does not include any assumption for trade-in of equipment being replaced.								

Town of East Millinocket				
Capital Investment Plan				
Item	Quantity	Estimated Cost	Estimated Timing	Potential Funding Source
PUBLIC WORKS				
Plow Truck	1	\$250,000	2021-2022	Tax Funded
Front End Loader	1	\$250,000	2024-2025	Tax Funded
1-ton Truck	1	\$65,000	2023	Tax Funded
WATER				
Chemical Building Upgrade		\$180,000	2025	Water Savings - USER FEE FUNDED
Old Main St. Pipe Replacement			2030	Water Savings - USER FEE FUNDED
Engine for #3 Pump	1	\$30,000	2024	Water Savings - USER FEE FUNDED
FIRE & AMBULANCE				
Scott Breathing Apparatus	12	\$65,000	2024	Grants
Defibrillator	5	\$150,000	2026	Grants
Ambulances	3	\$500,000	2023-2028	Grants/Revenues
ADMIN				
Roof Replacement	1	\$200,000	2030	Grants/Taxation
Banquet Hall Kitchen Upgrade	1	\$100,000	2022-2025	Grants
Banquet Hall Meeting Room Upgrade	1	\$30,000	2025	Grants
Banquet Hall Bathroom Upgrade	1	\$30,000	2025	Grants
POLICE				
The Town of East Millinocket budgets through taxation and contract service to purchase 1 new cruiser annually or biannually at approx. \$20,000-\$25,000.				

Town of Medway				
Capital Investment Plan				
Item	Quantity	Estimated Cost	Estimated Timing	Potential Funding Source
PUBLIC WORKS				
Plow Truck # 7	1	\$185,000	2021-2022	Tax Funded / Equip. Reserve
1 - Ton Truck	1	\$75,000	2023 -2024	Tax Funded / Equip. Reserve
TRANSFER STATION				
Outside Compactor	1	TBD	2022 -2023	Tax Funded / Equip Reserve
FIRE/AMBULANCE				
Ambulance	1	150,000	2022-2023	Tax Funded/Equip Reserve
Life Packs	2	60,000	2022-2023	Grants

Strategies & Policies

In order to plan for the current and future fiscal needs of the Katahdin Region, local policies and implementation strategies have been developed in addition to the following state policies and implementation strategies.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To finance existing and future facilities and services in a cost effective manner.
2. To explore grants available to assist in the funding of capital investments within the community.
3. To reduce Maine's tax burden by staying within LD 1 spending limitations.

Strategies:

Minimum strategies to meet state goals:

1. Explore opportunities to work with neighboring communities to plan for and finance shared or adjacent capital investments to increase cost savings and efficiencies.

Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket, Millinocket

Local

Millinocket

Policies:

Minimum policies required to address state goals:

1. To finance existing and future facilities and services in a cost effective manner.
2. To explore grants available to assist in the funding of capital investments within the community.
3. To reduce Maine's tax burden by staying within LD 1 spending limitations.

Strategies:

Minimum strategies to meet state goals:

1. Explore opportunities to work with neighboring communities to plan for and finance shared or adjacent capital investments to increase cost savings and efficiencies.

Time Frame: Ongoing

Responsible Agent(s): State of Maine, Millinocket

East Millinocket

1. **Policy:** To finance existing and future facilities and services in a cost effective manner.

Strategies: To explore grants available to assist in the funding of capital investments within the community.

Time Frame: 1-15 years

Responsible Agent(s): Board of Selectmen, Administrative Assistant, Department Heads

Medway

1. **Policy:** The Town shall prepare a formal Capital Improvement Plan.
2. **Strategies:** The Board of Selectmen in conjunction with Department heads shall review and update the CIP on an annual basis and make recommendations to the voters

Time Frame: Ongoing

Responsible Agent(s): Department Heads and Board of Selectmen

3. **Policy:** Revaluation of the entire Town of Medway

Strategies: The Medway Board of Selectmen along with the assessor's aide will do a revaluation of the entire town to bring values up to date

Time Frame: Five-year plan

Responsible Agent(s): Board of Selectmen and the Assessor's Aide

4. **Policy:** To identify and Apply for grants

Strategies: To work with all departments in identifying and applying for grants to help fund capital improvement projects

Time Frame: Ongoing

Responsible Agent(s): Board of Selectmen and Department Heads

5. Policy; Shared Services

Strategies: Work with neighboring communities to identify and continue shared services

Time Frame: Ongoing

Responsible Agent(s): Board of Selectmen and Department Heads

Chapter Fourteen:

CURRENT & FUTURE LAND USE

Goals/Vision

State Goal

None required.

Local Goals

Millinocket

To develop a harmonious balance between tourism, commercial and industrial development based on the natural resources in the area.

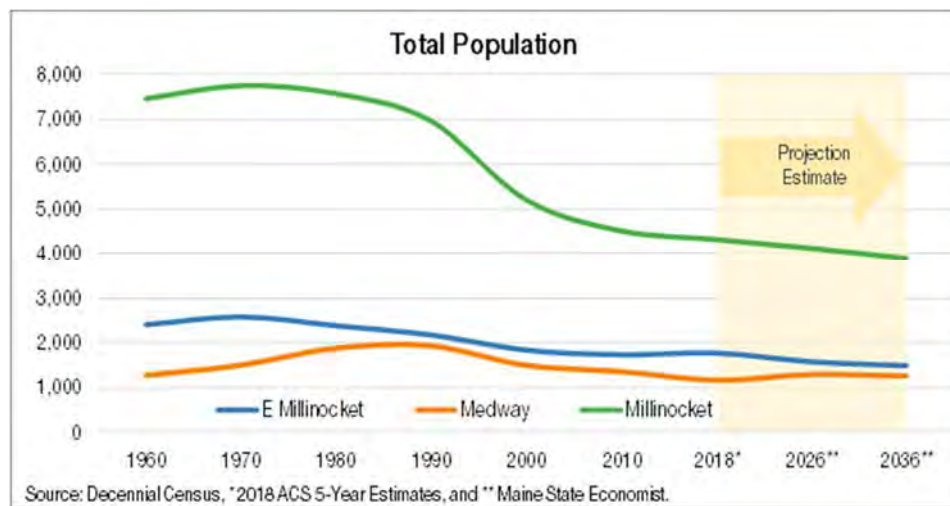
Introduction

The land use section of this plan is based on the information found in the inventory and analysis of the comprehensive plan. Although the land use plan is shaped by the policies developed in each section, consideration is given to the existing land use patterns and the expected future land use needs. Existing land use patterns are reviewed and efforts are made to minimize nonconforming uses within each proposed zone.

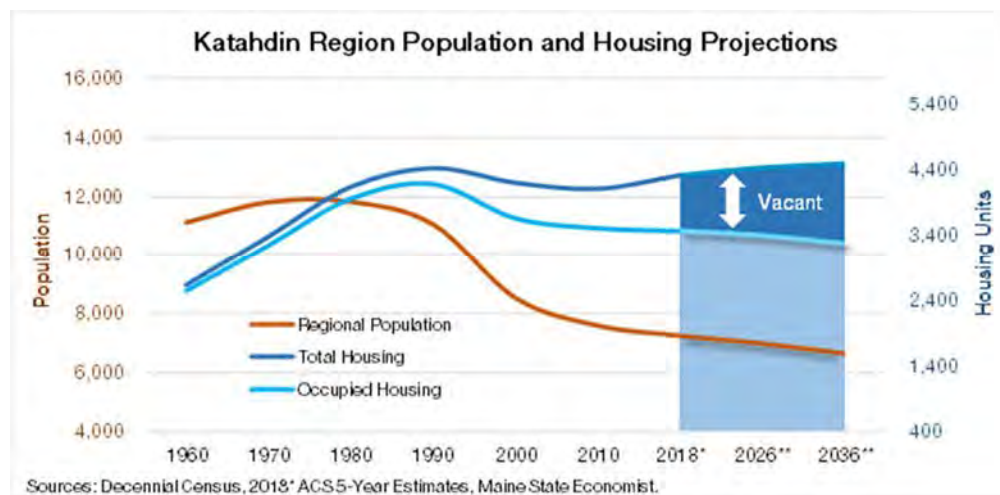
Growth management legislation requires the creation of growth and rural zones. The designation of growth areas is intended to direct development to areas most suitable for such growth and away from areas where growth and development would be incompatible with the protection of rural resources. Based on growth management, growth areas are to be located close to municipal services to minimize the cost to the municipality for the delivery and maintenance of these services. The designation of rural zones is intended to protect agricultural, forest, scenic areas, and other open space land areas from incompatible development and uses.

Existing Land Use

The Katahdin region's historic development patterns, centered on employment at Great Northern Paper mills in Millinocket and East Millinocket as well as the expansion of the Maine turnpike, have influenced historic growth and housing development. Similarly, the declining influence of those large businesses, subsequent economic stresses, and a decrease in population have affected recent trends in land use. The graph below, reproduced from the section on Demographics, shows that the decline in regional population began as early as the 1970s and is expected to continue decreasing from 7,234 in 2018 to 6,618 in 2036 – a decrease of 8.5%.



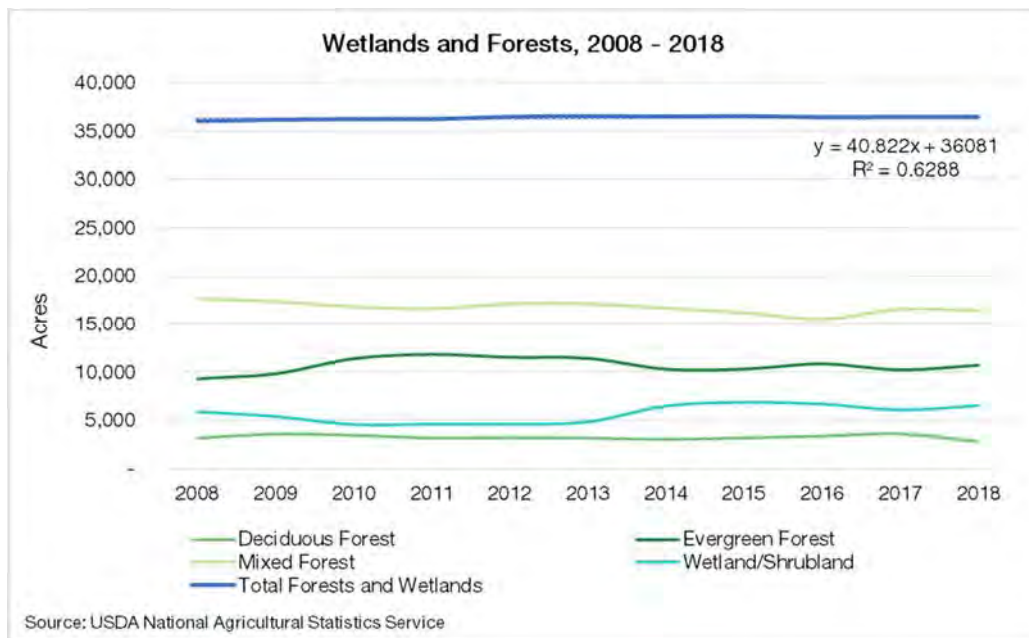
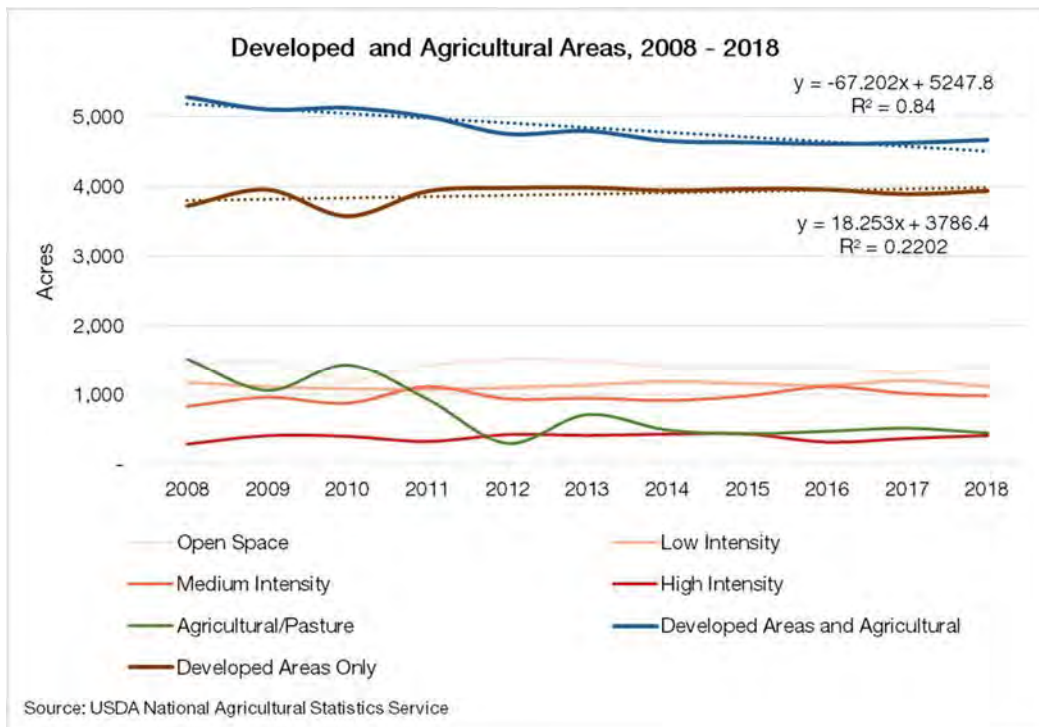
As population has decreased, however, household sizes in the region and across the country have tended to decrease as well. This phenomena has somewhat cushioned the effect of population decrease on overall occupied housing stock in the region. Additionally, seasonal home ownership in the county has increased as a whole, an effect seen in the Katahdin region. Thus, expected housing construction is projected to remain relatively flat, adding as few as 120 housing units between 2018 and 2036 across the three towns, an increase of 2.8%. Occupied housing units will continue to decrease from 3,466 in 2018 to approximately 3,200 in 2036 – a decrease of 7.7%.



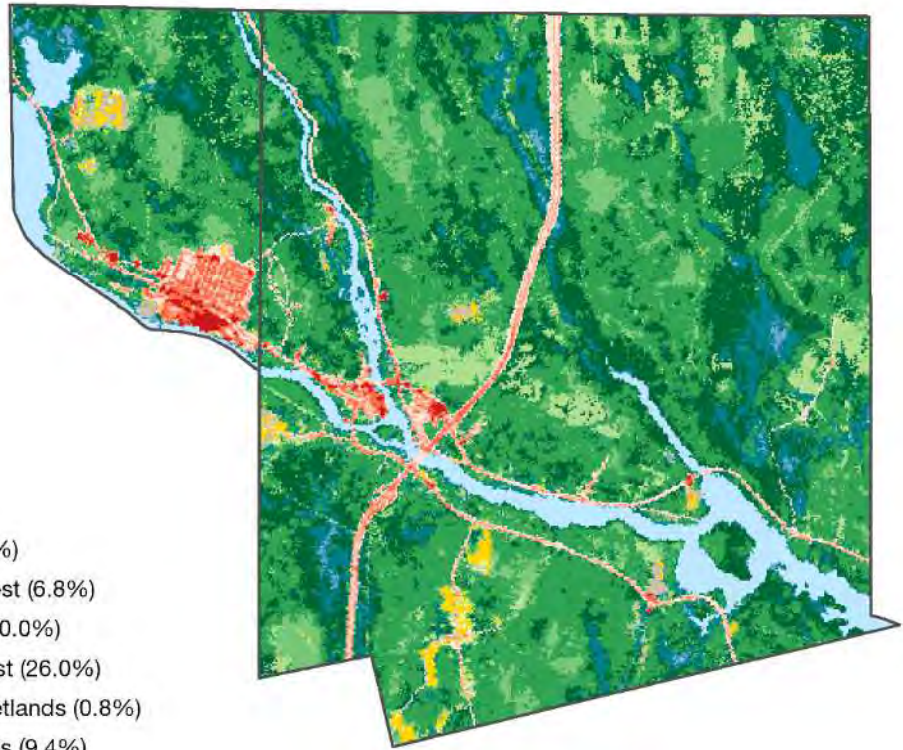
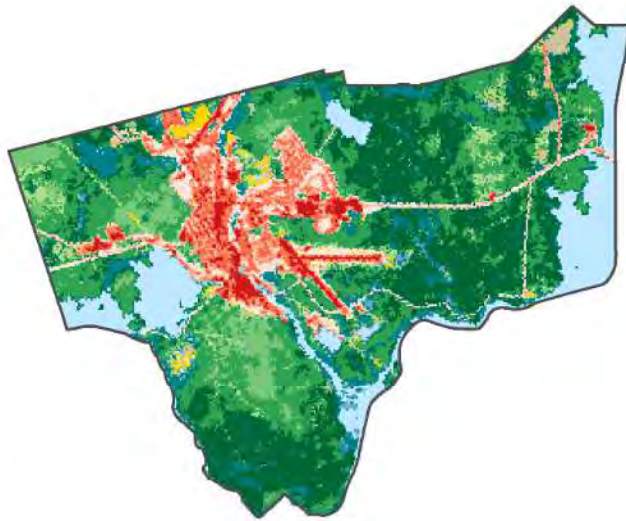
As demand for new housing has waned, the pressure for local development has also slowed. The United States Department of Agriculture's (USDA) National Agricultural Statistics Survey (NASS) is a remotely sensed dataset that categorizes types of land cover and land use. By analyzing the spectra of different mineral, vegetative, and manufactured surfaces, soil compaction and moisture content, and impervious surfaces, satellite imagery can indicate anything from a change in crop cover to the construction of housing. It should be noted that because this dataset relies on spectral classification and because the resolution is relatively poor and coarse – each pixel shows a 30-meter square – care must be taken during interpretation and other survey tools utilized. Pixels of 30 meters may result in the mischaracterization of some ground features.

Between 2008 and 2018, the Katahdin region saw an increase in developed land area of only 217.5 acres, or 5.8% of total developed area. This compares to a 70% decrease in agriculture and pasture-type land cover, accounting for a little over 1,000 acres. In total, human-managed landscapes such as















croplands, pastures, and developed areas decreased by 16%. During the same period, the region experienced a 0.7% decrease in total forest cover and a 10.9% increase in wetlands and shrublands – in total, these areas increased by 426 acres. These shifts fit with patterns of managed woodlands and regrowth following harvest, though true sustainability must take into account more than a ten-year sample period. According to this analysis, long-term trends for forest, wetland, and shrubland land cover are stable. Finally, measured water surfaces in the region increased by 190 acres. This change underscores the dynamic nature of riparian systems and the interminable forces of erosion. Note that in the Developed and Agricultural Areas table and 2018 NASS Categories map below, “low, medium and high intensity” refer to land development intensity.

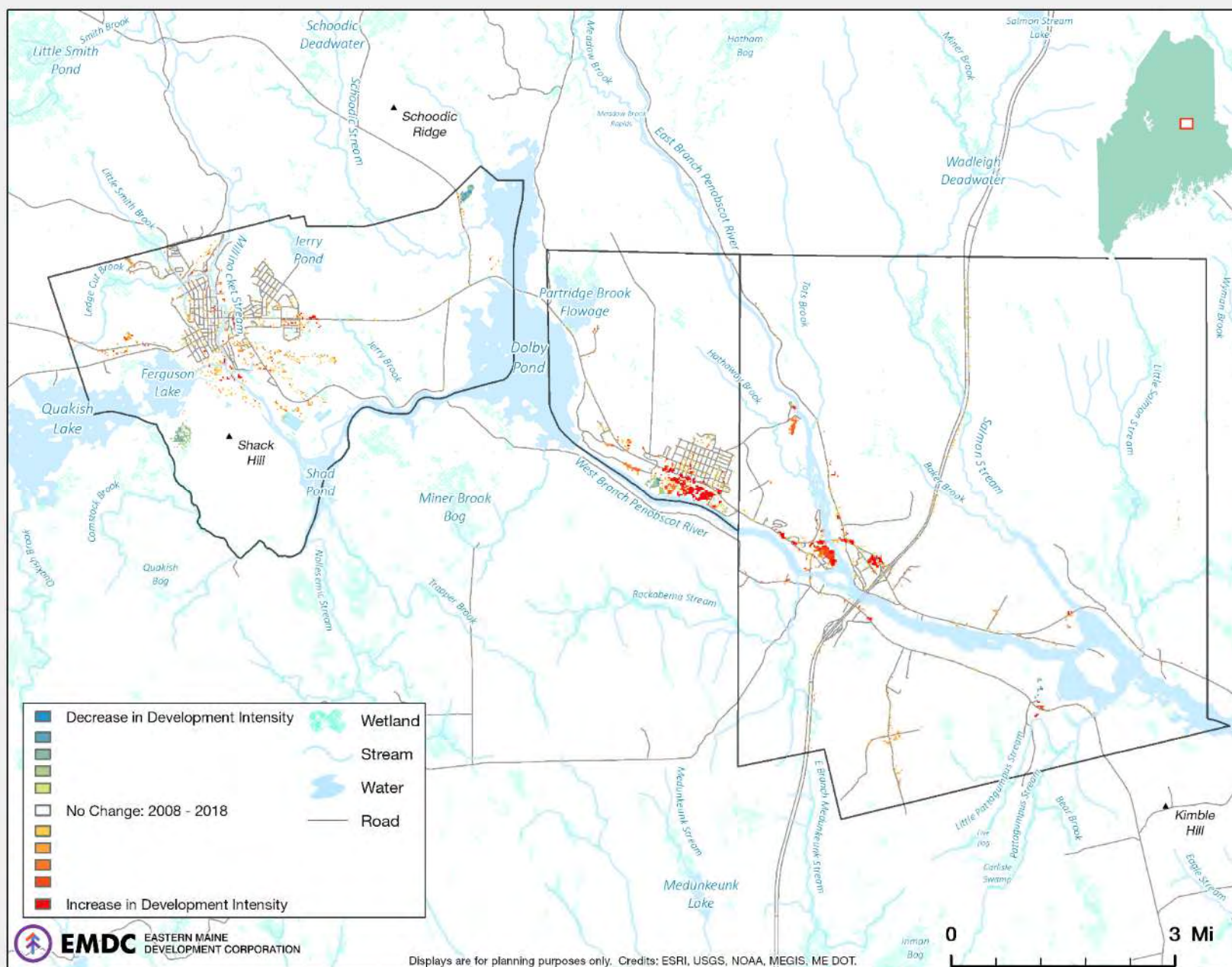


	2008 Acres	2018 Acres	Change
OPEN WATER	3,208.27	3,397.75	+ 5.9%
Open Space	1,430.22	1,433.56	+ 0.2%
Low Intensity	1,175.80	1,117.53	-5.0%
Medium Intensity	829.75	979.43	+ 18.0%
High Intensity	287.33	410.10	+ 42.7%
Total Developed	3,723.11	3,940.61	+ 5.8%
Agriculture/Crops	689.20	383.85	-44.3%
Grassland/Pasture	828.64	61.16	-92.6%
Total Agriculture	1,517.84	445.01	-70.7%
Barren	44.26	284.22	+ 542.2%
Deciduous Forest	3,168.68	2,801.06	-11.6%
Evergreen Forest	9,284.53	10,680.50	+ 15.0%
Mixed Forest	17,660.80	16,414.95	-7.1%
Total Forest	30,114.01	29,896.51	-0.7%
Shrubland	1,744.69	2,339.37	+ 34.1%
Woody Wetlands	3,799.61	3,844.98	+ 1.2%
Herbaceous Wetlands	334.48	337.82	+ 1.0%
Total Shrub/Wetland	5,878.78	6,522.17	+ 10.9%
TOTAL LAND	41,278.00	41,088.52	-0.5%
Source: USDA National Agricultural Statistics Service			



2018 NASS Categories (% Land Cover)

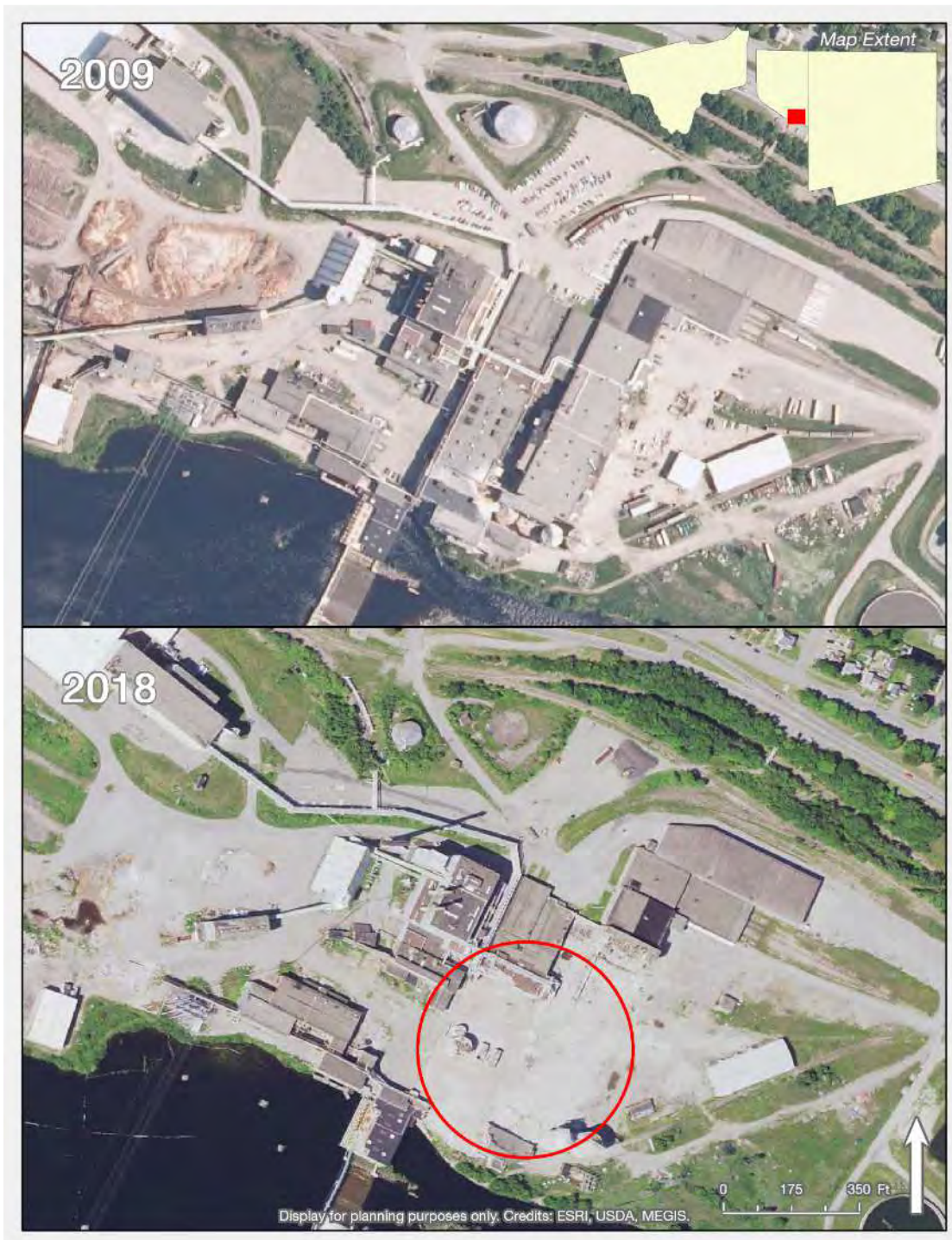
 Open Space (3.5%)	 Shrubland (5.7%)
 Low Intensity (2.7%)	 Deciduous Forest (6.8%)
 Med Intensity (2.4%)	 Mixed Forest (40.0%)
 High Intensity (1.0%)	 Evergreen Forest (26.0%)
 Barren (0.7%)	 Herbaceous Wetlands (0.8%)
 Agriculture (0.9%)	 Woody Wetlands (9.4%)
 Grassland/Pasture (0.1%)	 Open Water



In examining the shifts in developed land cover, however, there is a degree of uncertainty of whether those shifts were due to residential development or commercial and industrial development. Examining the largest changes between 2008 and 2018, several areas stand out:

1. The area of the former Great Northern Paper mill in East Millinocket;
2. The area directly northwest of the confluence of the East and West branches of the Penobscot River in Medway, adjacent to Medway Road/Route 157 and Pattagumpus Road/Route 116;
3. Areas adjacent to Medway Road/Route 157 west of the junction with I-95;
4. An area at the terminus of Hathaway Road near the East Branch Penobscot River in Medway;
5. An area near where Huber Road leaves the municipal boundary in Millinocket;
6. The area south of Ferguson Lake and the Quakish Dam in Millinocket.

Using National Agriculture Imagery Program (NAIP) imagery, we are able to examine high-resolution imagery for current and historic periods. Below is site number 1, the former mill in East Millinocket. Comparing imagery collected in 2009 and in 2018, one notices somewhat extensive demolition and cleanup activities. It is possible that cycles of use and disuse have invited weeds and scrub which are subsequently mown, altering the spectral profile of the landscape.



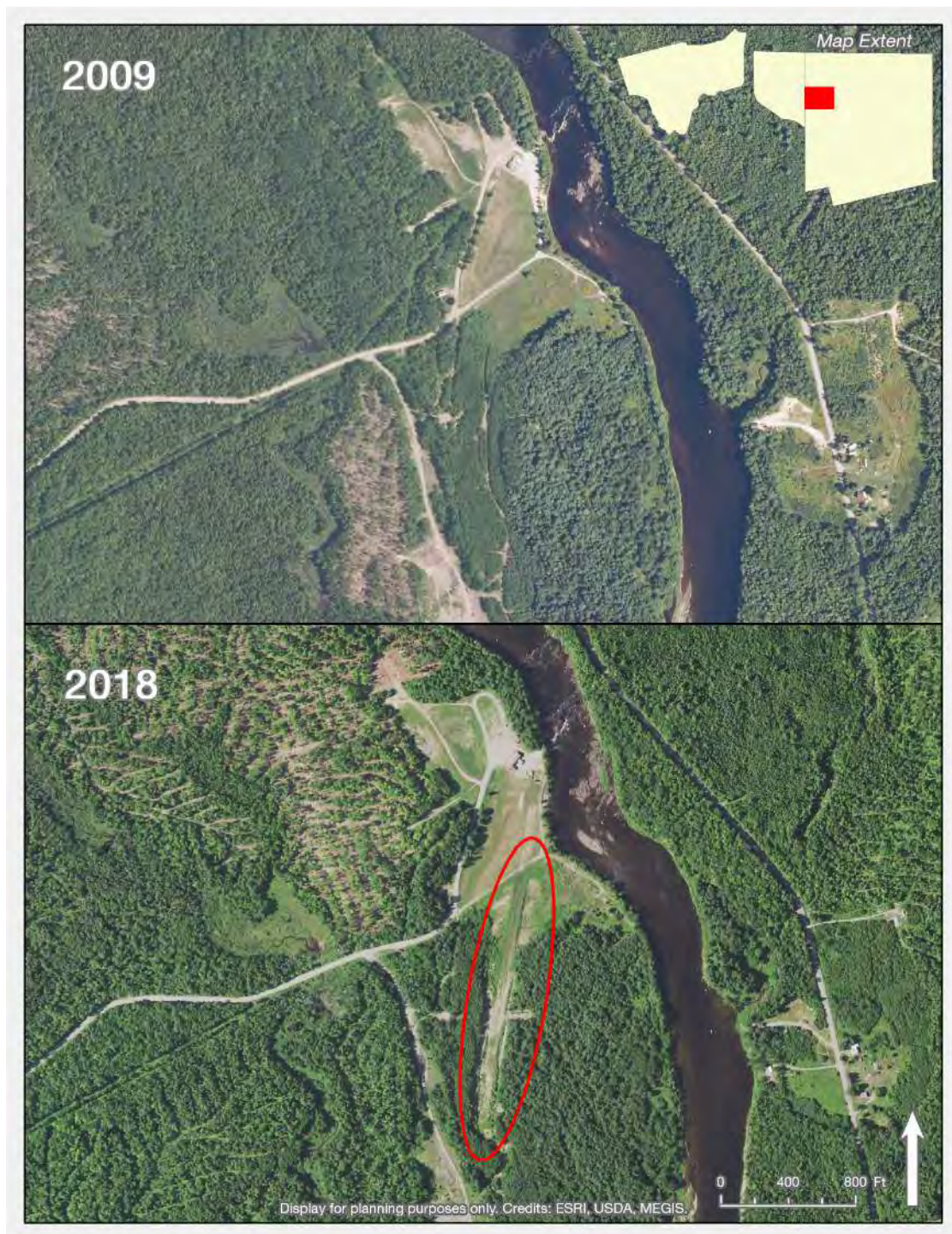
The second area of interest – just northwest of the confluence of the Penobscot River in Medway – is seen below. This area seems to have not experienced any residential development in the time period. Rather, activities to the east have disturbed soil and vegetation, resulting in a measured increase in development intensity.



Site three, the areas adjacent to Medway Road/Route 157 west of I-95, are shown below. Again, slight alterations in the tree line surrounding commercial lots as well as disturbed soils have caused a measured increase in development intensity.



Site number four is located at the terminus of Hathaway Road in Medway near the East Branch Sno-Rovers club. In addition to several logging operations in the west, there is an area of cleared land extending south-southwest from an already cleared field.



Finally, two areas have decreased in development activity. The first, site five, is situated at the Huber Hardwood Resources facility near the Millinocket town boundary. On the southern end of the property, an area of forest has been removed. However, it is likely that disturbances in soil and vegetative incursion has resulted in a measured decrease in land use intensity.



Site number six is located in the southwest of Millinocket at the municipal landfill, just south of Ferguson Lake and the Quakish Dam. In 2009, this area was extensively barren and stripped, subsequently recovering and thus resulting in a decrease in usage intensity. Note that the image below shows the bark pile at the Millinocket mill site but the 1,400 acres that are a part of that site and are in the process of being developed are not shown. The mill site has undergone significant change.



When we remove these large areas from our analysis of land use change, the expected figure drops from a measured increase of 217.5 acres to an increase of only 82.5 acres – 2.2% – over ten years. Compared with census data reported in the section on Housing, during the period between the 2010 census and the 2018 American Community Survey 5-Year estimates, the region increased by 208 housing units total. This figure includes single-family homes as well as rental units and duplexes. This increase – a 5% increase from 2010 – falls well behind the drop in population of approximately 344 people. The occupied housing rate – defined as those inhabited for six months or more out of the year – decreased from 3,511 in 2010 to 3,466 in the 2018 ACS estimates. Thus, much of the growth in housing was centered on vacant units largely for seasonal, recreational, or occasional use. The administrative capacity in Millinocket, East Millinocket, and Medway is adequate to manage their land use regulation programs, particularly their planning boards and code enforcement officers.

Lot Dimension Standards & Land Use Zones

Millinocket			
DIMENSIONAL REQUIREMENTS	DISTRICT		
	Residential		
	Downtown Residential Zone R1	Medium Density Residential Zone (R2)	Rural Development Zone (RD)
Minimum Lot Size	6,000 Sq. Ft	10,000 Sq. Ft	40,000 Sq. Ft
Minimum Road/Share Frontage	50 Feet	100 Feet	150 Feet
Minimum Front Yard Setback From Edge of Right-Of-Way	10 Feet	25 Feet	50 Feet
Minimum Side Yard Setback From Edge of Right-Of-Way			
Principal Structures	5 Feet	5/10 ² Feet	20 Feet
Accessory Structures	5 Feet	5 Feet	10 Feet
Minimum Rear Yard Setback			
Principal Structures	10 Feet	10 Feet	20 Feet
Accessory Structures	5 Feet	5 Feet	10 Feet
Maximum Lot Coverage	60%	25%	20%
Maximum Building Height			
Principal Structures	40 Feet	30 Feet	30 Feet
Accessory Structures	20 Feet	16 Feet	16 Feet
	Commercial		
	Downtown Commercial Zone (DC)	Highway Commercial Zone (HC)	Neighborhood Commercial Zone (NC)
Minimum Lot Size	5,000 Sq. Ft	1 Acre	7,500 Sq. Ft
Minimum Road/Share Frontage	50 Feet	200 Feet	75 Feet
Minimum Front Yard Setback From Edge of Right-Of-Way	0 Feet	50 Feet	20 Feet
Minimum Side Yard Setback From Edge of Right-Of-Way			
Principal Structures	NA	25 Feet	10 Feet
Accessory Structures	NA	10 Feet	5 Feet
Minimum Rear Yard Setback			
Principal Structures	10 Feet	25 Feet	10 Feet
Accessory Structures	5 Feet	10 Feet	5 Feet
Maximum Lot Coverage	90%	80%	60%
Maximum Building Height			
Principal Structures	40 Feet	40 Feet	30 Feet
Accessory Structures	20 Feet	20 Feet	16 Feet

Millinocket	
DIMENSIONAL REQUIREMENTS	DISTRICT
	Industrial (ID)
Minimum Lot Size	2 Acres
Minimum Road/Share Frontage	200/300 Feet
Minimum Front Yard Setback From Edge of Right-Of-Way	100 Feet
Minimum Side Yard Setback	
Principal Structures	25 Feet
Accessory Structures	25 Feet
Minimum Rear Yard Setback	
Principal Structures	25 Feet
Accessory Structures	25 Feet
Maximum Lot Coverage	30%
Maximum Building Height	
Principal Structures	100 Feet
Accessory Structures	100 Feet
	Commercial Forestland (CF)
Minimum Lot Size	10 Acres
Minimum Road/Share Frontage	200/300 Feet
Minimum Front Yard Setback From Edge of Right-Of-Way	100 Feet
Minimum Side Yard Setback	
Principal Structures	25 Feet
Accessory Structures	25 Feet
Minimum Rear Yard Setback	
Principal Structures	25 Feet
Accessory Structures	25 Feet
Maximum Lot Coverage	30%
Maximum Building Height	
Principal Structures	100 Feet
Accessory Structures	100 Feet

East Millinocket	
DIMENSIONAL REQUIREMENTS	DISTRICT
	Aquifer Protection (AP)
Minimum Lot Size	NA
Minimum Road Frontage	NA
Minimum Setbacks	NA
	Rural (R)
Minimum Lot Size	Municipal Sewer – 10,000 Sq. Ft Subsurface Wastewater Disposal – 20,000 Sq. Ft
Minimum Lot Size Per Dwelling	NA
Minimum Frontage and Setbacks	NA
Maximum Building Height	30 Feet
	Commercial (C)
Minimum Lot Size	Municipal Sewer – 10,000 Sq. Ft Subsurface Disposal – 20,000 Sq. Ft
Minimum Lot Area Per Family	5,000 Sq. Ft
Minimum Road Frontage	60 Feet
Minimum Lot Width	60 Feet
Minimum Lot Depth	75 Feet
Minimum Front Yard Setback From Edge of Traveled Way	20 Feet
Minimum Side Yard Setback	8 Feet
Minimum Rear Yard Setback	24 Feet
Maximum Building Height	30 Feet
Maximum Lot Coverage	-
	Industrial Park (IPD) & Industrial (ID)
Minimum Lot Size	10,000 Sq. Ft
Minimum Road Frontage	100 Feet
Minimum Lot Width	100 Feet
Minimum Front Yard Setback	50 Feet
Minimum Side Yard Setback	50 Feet
Minimum Rear Yard Setback	50 Feet
Maximum Lot Coverage	50%
Maximum Building Height	45 Feet
	Residential Development (RD)
Minimum Lot Size	Municipal Sewer – 10,000 Sq. Ft Subsurface Disposal – 20,000 Sq. Ft
Minimum Lot Area Per Family	5,000 Sq. Ft
Minimum Road Frontage	100 Feet
Minimum Lot Width	100 Feet
Minimum Lot Depth	100 Feet
Minimum Front Yard Setback From Edge of Traveled Way (Corner Lot)	35 Feet, 20 Feet
Minimum Front Yard Setback	Frontage Setback > 100' - 10 Feet < 100' - 5 Feet
Maximum Building Height	30 Feet
Maximum Lot Coverage	30%

The Town of Medway does not currently have an adopted zoning ordinance and therefore, no identified lot dimensional standards. However, Medway complies with the State of Maine's zoning laws.

Both Millinocket and East Millinocket utilize their zoning ordinances to manage land use within their boundaries. Provisions for residential development are present within each community. Commercial forestland (CF) zones in Millinocket protect those areas from development, whereas rural (R) zones and aquifer protection (AP) zones in East Millinocket protect those areas by steering development and commercial activities elsewhere. Both municipalities have zoning dedicated to industrial development.

Future Land Use

State Goal

To encourage orderly growth and development in appropriate areas of each community, while protecting the state's rural character, making efficient use of public services, and preventing development sprawl.

Introduction

Predicting future land uses requires an analysis of future populations, an examination of natural constraints to development, as well as an understanding of local, state, and federal restrictions on development. These constraints, along with attitudes towards regulation, will differ from community to community. Zoning, density limits, transfers of development rights, and other mechanisms communities used to manage future growth must be coupled with an informed, long-range plan in order to achieve the desired results. Using a comprehensive plan as a guide, towns have a better chance at developing targeted policies and practices that can enhance integrity of both built and natural environments and improve the public's relationship with each. To that end, the Growth Management Act requires communities to designate areas suitable for growth, but just as important are areas designated for recreation, for forestry and agriculture, and for habitat and water resource preservation.

After evaluating historic trends in housing and demography, it is necessary to map natural constraints to development. The following criteria are enumerated in *Comprehensive Planning: A Manual for Maine Communities* published by the Maine State Planning Office in 2005.

- Topography: steep slopes can severely limit construction and utility installation, as can the depth to bedrock. Rugged terrain can also limit the construction of roads and streets.
- Soils and geology: soil permeability can inhibit development, especially where soils are very saturated (hydric) or where soils are excessively drained, preventing the installation of a septic system. Certain soils are important as Prime Farmland or as highly productive woodlands, valuable to a community's ability to self-source food and other resources. Maine's underlying geology can also cause issues in well water such as arsenic, radon, manganese, and uranium.
- Drinking water resources: areas overlying aquifers and well recharge areas are sensitive to groundwater pollution and therefore require protection from pollution. Because aquifers can

carry water for miles before delivering it to a drinking supply, these resources need to be managed across political boundaries.

- Natural hazard areas: the most common hazards for Maine communities arise from flooding in riparian and marine environments. Flooding is a natural and enduring feature of our environment and only becomes a natural disaster when human development is in the way. To mitigate these hazards, infrastructure and development must be guided away from those areas.
- Wetlands and waterbodies: wetlands act as buffers for storm waters and often mitigate the worst effects of flood events while filtering sediments and contaminants. All water systems are unceasingly dynamic; development too near these features is inherently vulnerable to flooding and erosion.
- Habitats: all of Maine's flora and fauna are valuable in one way or another. Whether a species is a commercial asset, or whether that species is part of a much larger integrated ecosystem, these habitats need to be maintained if humans are to survive on this planet.
- Scenic areas: our communal pride in our state's beauty says a lot about our civic character. By acting to preserve both natural and cultural scenic value, we can ensure that Maine remains vibrant and worthwhile.

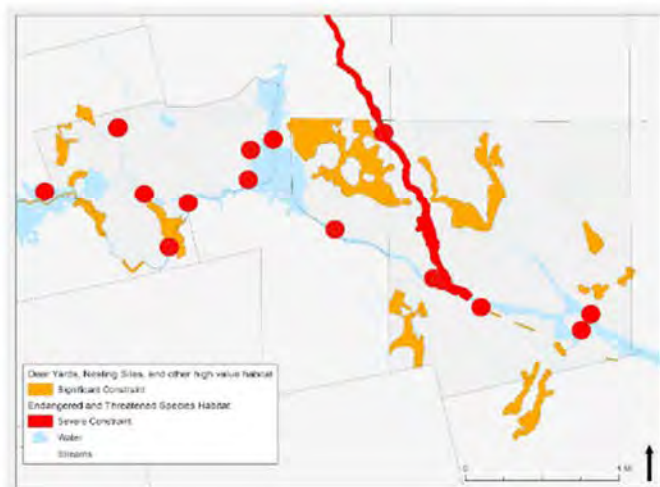
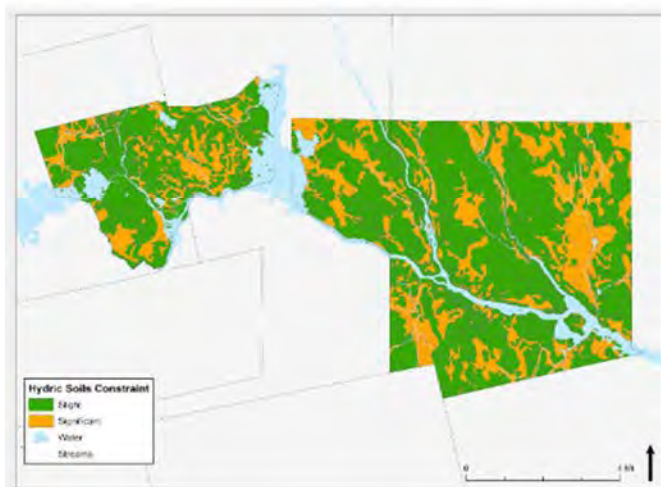
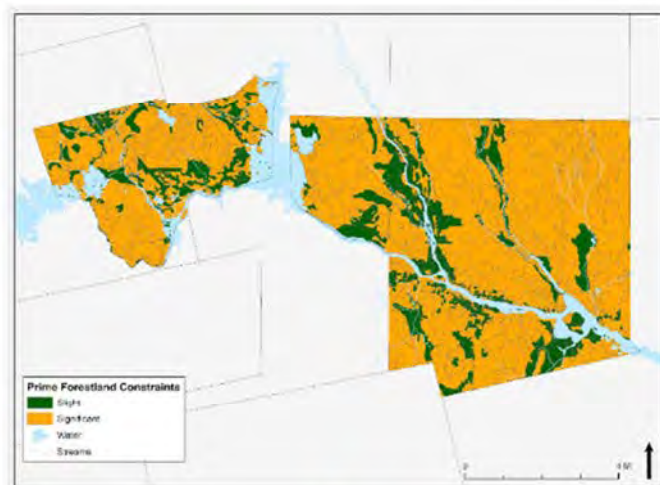
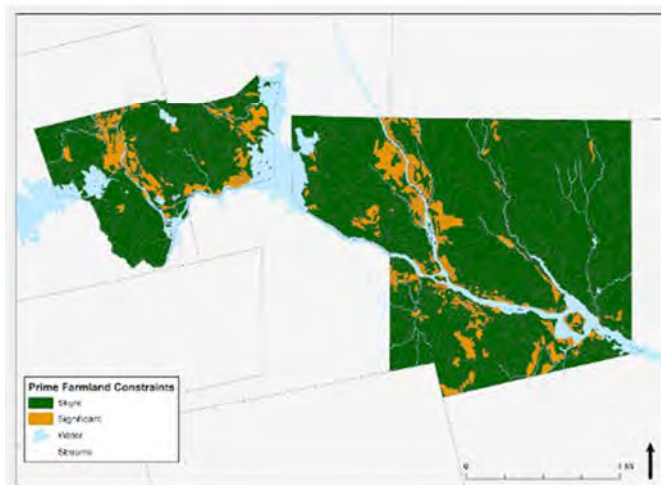
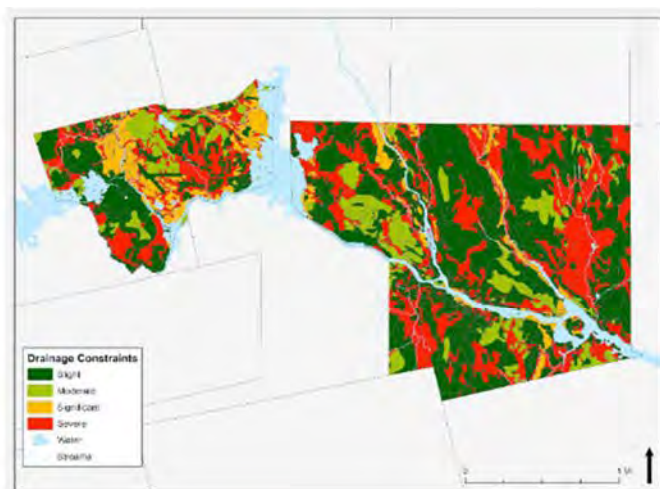
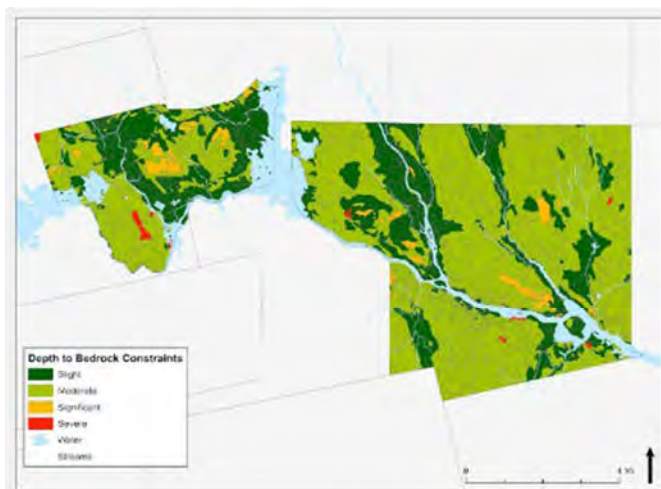
Rating Natural Resources for Constraints to Development					
Item	Variable	Severe	Significant	Moderate	Slight
Topography: Slope	>25%	X			
	15% to 25%		X		
	8% to 15%			X	
	1% to 8%				X
	<1%		X		
Depth to bedrock (public sewer reduces these constraints)	<12 inches	X			
	12 to 15 inches		X		
	15 to 48 inches			X	
	>15" in non-sands, >48" sands				X
Soils:					
Depth to groundwater (public sewer reduces these constraints)	<7 inches	X			
	7 to 15 inches		X		
	>15 inches in sands			X	
	>15 inches in other soils				X
Prime farmland	Yes		X		
	No				X
Woodland productivity	High		X		
	Medium			X	
	Low				X
Risk of erosion	Sandy on slopes >15%	X			
	Sandy on slopes 8% to 15%		X		
	Other soils				X
Aquifer production	High	X			
	Medium		X		
	Low				X
Flood plain	100-year	X			
	Outside of 100-year				X
Wetlands	Coastal	X			
	Freshwater of significance	X			
	Other		X		
Lakes and ponds: distance from high water mark	Within 100 feet	X			
	Within 100 to 250 feet			X	
	>250 feet				X
Marine waters: distance from high water mark	<250' in sandy soils, <100' in other soils	X			
	soils			X	
	500' +in sandy soils, 250' +in other soils				X
Habitat	Rare and endangered	X			
	Deer yards, coastal nesting, other high value		X		
	None of the above, but:				
	Part of limited no. of blocks of 250 +acres		X		
	One of many blocks of 250 +acres			X	
	None of the above				X
Scenic value	Rated high		X		
	Rated medium			X	
	Rated low				X
Other critical areas	All	X			

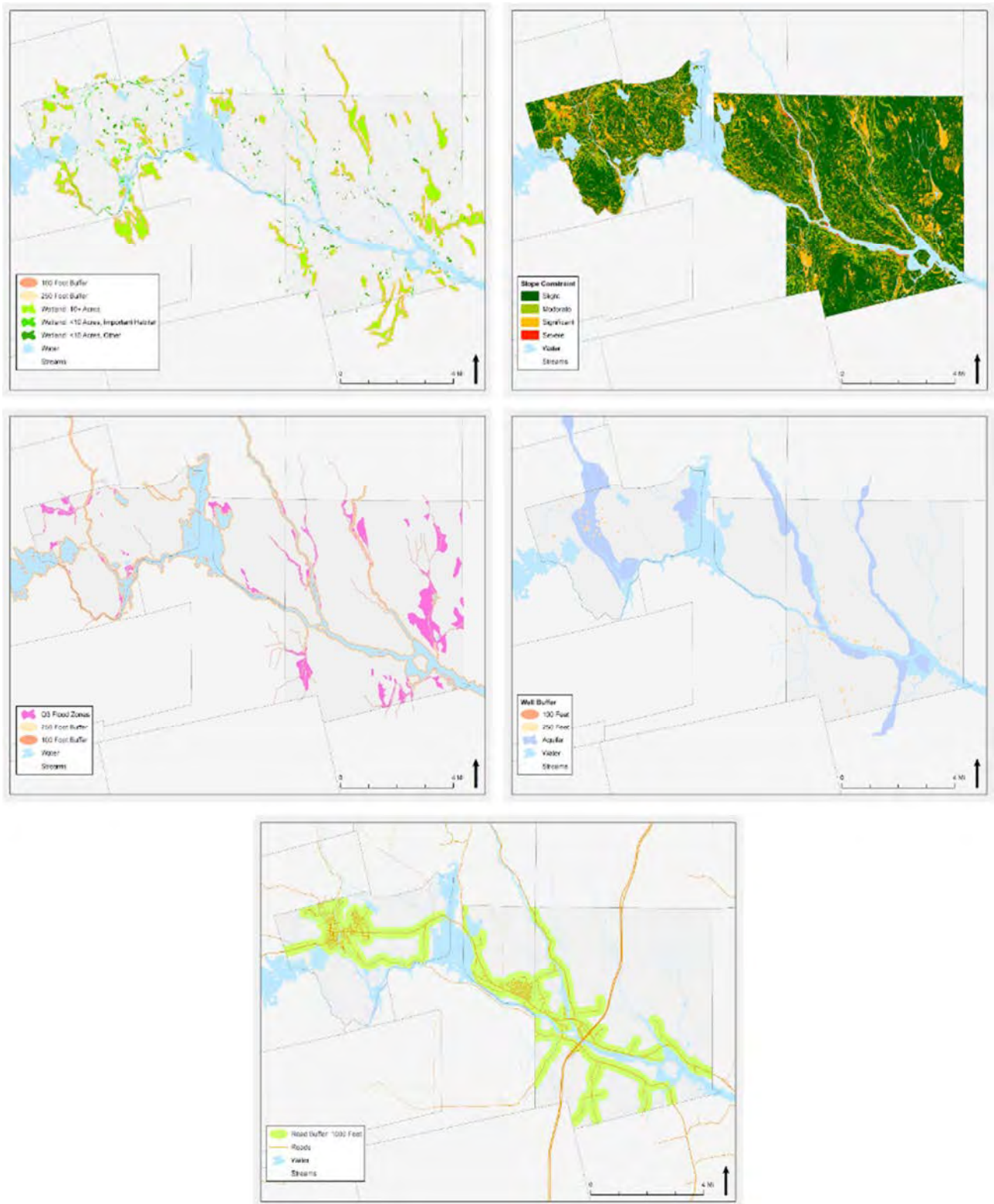
Source: Richert, E. and S. Most. 2005. Comprehensive Planning: A Manual for Maine Communities. *Maine State Planning Office*.

The inherent challenge in meeting each of these criteria is in finding *balance* between them. Prioritizing one element of municipal functioning at the expense of another often invites unintended and lasting consequences. To understand the intersection of these criteria, Geographic Information Systems (GIS) can be used to superimpose each constraint over an area of interest. This process once involved tracing and overlaying physical maps, but now uses digital representations of each element. By creating maps and describing each item in other sections, we can combine them into one unified measure of suitability or unsuitability. Layers considered were:

- Depth to bedrock;
- Soil drainage;
- Prime Farmland and Prime Forestland;
- Hydric soils;
- Significant habitats;
- Wetlands;
- Slope;
- Flood zones;
- Aquifer and well recharge areas;
- Lakes, ponds, rivers, and streams.

The suitability overlay begins by assigning a score for unsuitability to each variable, where a high score is the least suitable (i.e. water area) and zero is the most suitable (i.e. no constraints), and then summing those constraints across all variables. The result is a relative index of constraints to development, which are shown in the map. Emphasis on areas within 1,000 feet of a public, open access roadway shows that each town has ample area in which to focus development while retaining large contiguous tracts of working forestland, preserved habitat, and recreation areas.





Comparing this analysis to the entire land area of each town and considering development trends for the previous decade, we find that there is ample space to accommodate development when it might occur.

Suitability Index	East Millinocket		Medway		Millinocket	
1 to 6 (most suitable)	618.1	13.62%	2,151.5	8.18%	915.1	9.02%
7 to 13	822.2	18.12%	3,366.0	12.79%	2,006.7	19.77%
14 to 20	213.4	4.70%	915.5	3.48%	854.3	8.42%
21 to 27	56.2	1.24%	130.1	0.49%	102.6	1.01%
28 to 34 (least suitable)	1.0	0.02%	0.3	0.00%	3.1	0.03%
Source: USDA 2018 National Agricultural Statistics Service						

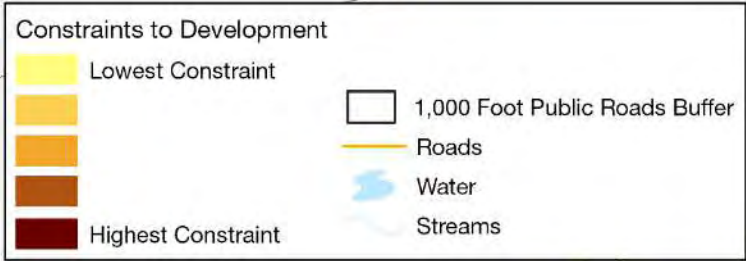
Zoning

Zoning and land use ordinances in place in the Katahdin region can be informed by analyses of development suitability. Every municipality must balance the needs of its residents, the pressures of commerce and economy, and the obligation to environmental sustainability. Both Millinocket and East Millinocket have adopted zoning ordinances, while Medway has not. In each community, provisions for residential development are made around the already settled downtowns as well as in certain rural areas. As identified previously, Millinocket maintains extensive commercial forestland (CF) zones, which protect that area from development. East Millinocket's rural (R) zone offers comparable protections by encouraging development and commercial activities in designated zones.

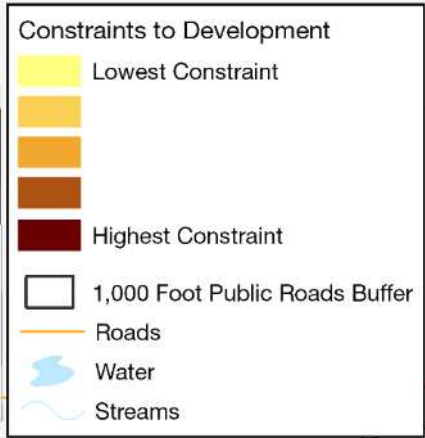
All towns adopt shoreland zoning to protect water resources and to protect against flooding. Millinocket extends this protection around Jerry Pond to a 1,000-foot buffer. East Millinocket extends a similar Aquifer Protection buffer surrounding the East Branch Penobscot River where it passes through its borders.

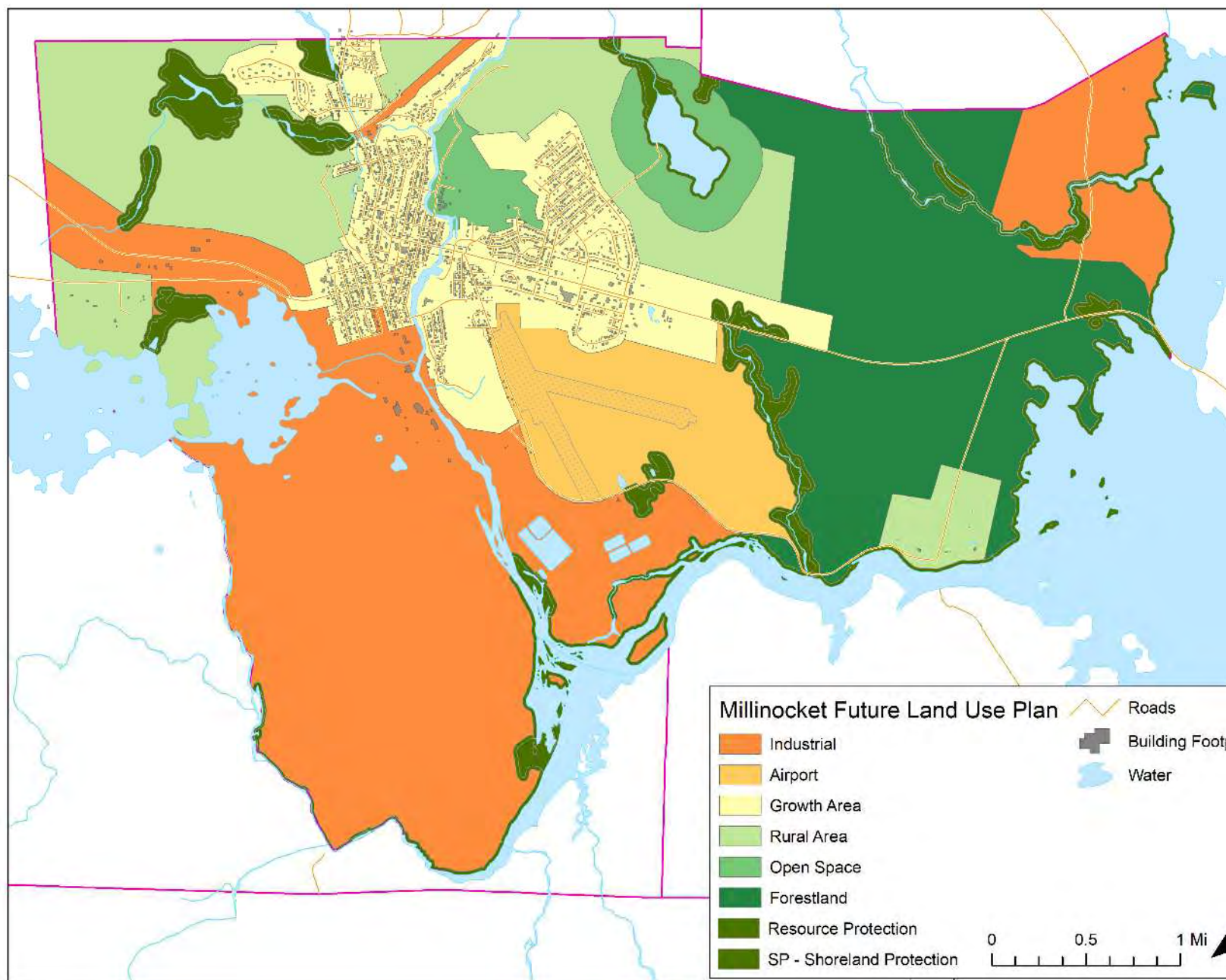
Because settlement patterns in Millinocket and East Millinocket differed from those in Medway, the ultimate impact of zoning on those three towns will differ as well. Medway was developed later, following the expansion of the Maine Turnpike, and there has been more pressure from spread out settlement patterns. However, the turnpike also acts as a barrier to development for much of the town. As a result, historic patterns of settlement along the Penobscot River and in the town's village center still predominate.

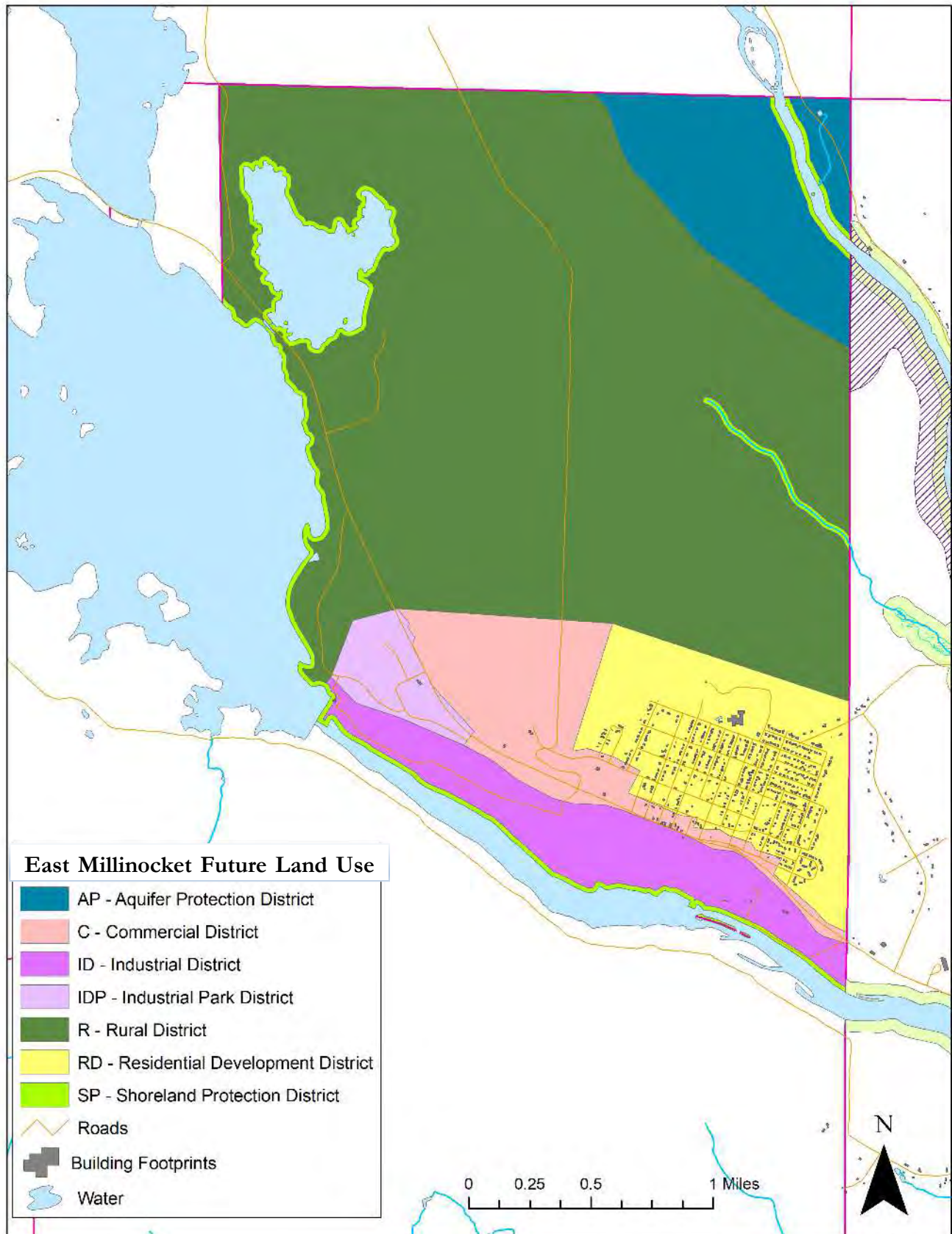
Millinocket & East Millinocket Constraints to Development

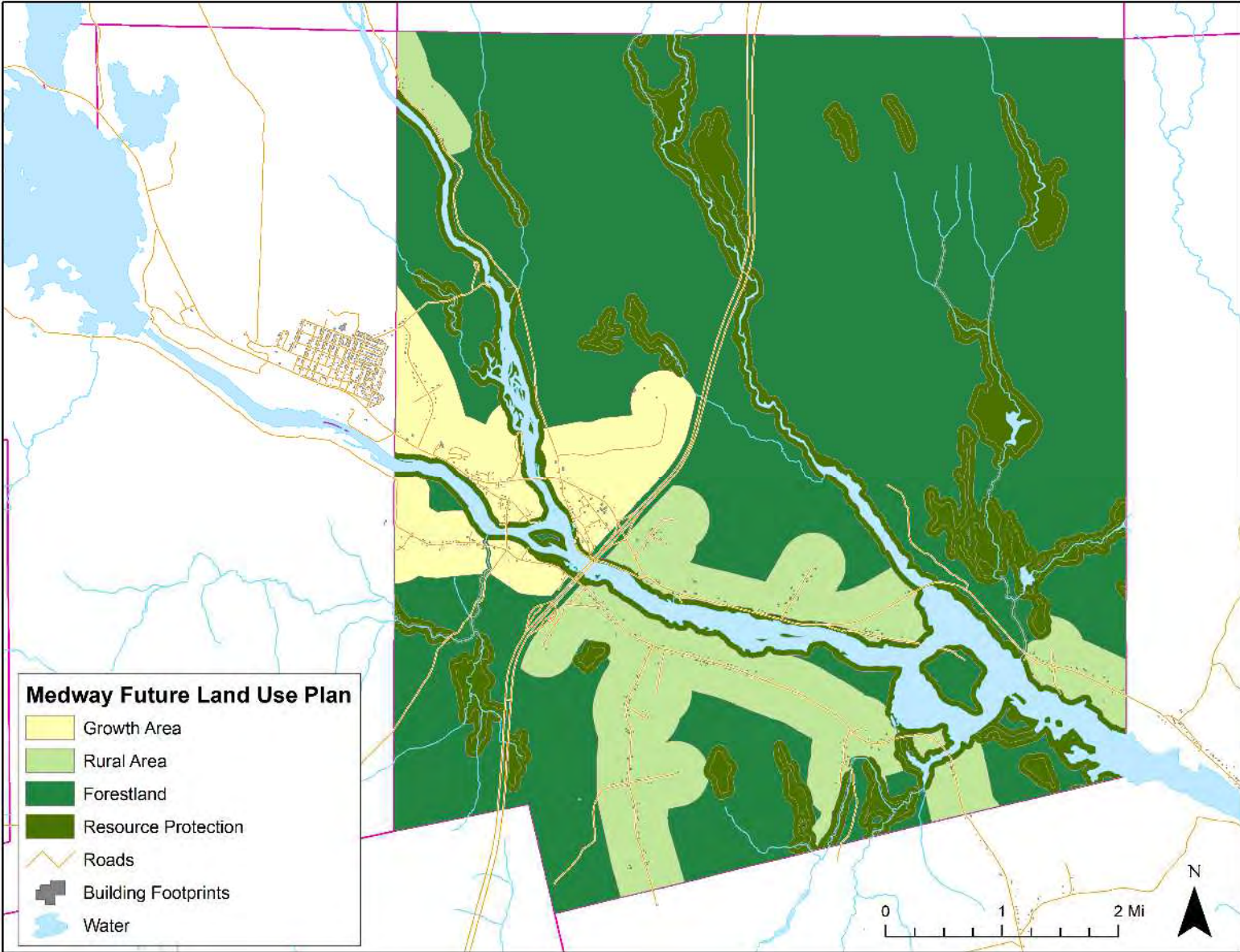


Medway Constraints to Development









Land Use Districts

Millinocket

The various zoning districts in Millinocket's Future Land Use Plan include Industrial, Airport, Growth Area, Rural Area, Open Space, Forestland, Resource Protection, and Shoreland Protection. A significant portion of southern Millinocket is zoned for Industrial Development. In southeast Millinocket is a Commercial Forestland zone, which the town maintains extensively. The Commercial Forestland zone protects this area from development. In southeast Millinocket is the Airport Development zone. In the center of Millinocket is the Growth Area zone, which is comprised of Downtown Residential Development, Medium Residential Development, Highway Commercial Development, Neighborhood Commercial Development, and Downtown Commercial Development. Downtown Residential Development has the highest intensity, followed by Highway Commercial Development, Medium Residential Development, Neighborhood Commercial Development, and Downtown Commercial Development. Scattered within the town's boundaries are zones of Resource Protection, specifically Wetland Protection. Northwestern Millinocket is primarily made up of Rural Area and is zoned for Rural Development. Within the Rural Area zones are Open Space zones within which Shoreland Protection zones protect water resources and protect against flooding. Millinocket extends this protection around Jerry Pond to a 1,000-foot buffer.

East Millinocket

The notable zoning districts within East Millinocket's Future Land Use Plan are Industrial, Growth Area, Rural Area, Open Space, Forestland, and Resource Protection. In the southern portion of East Millinocket are the Commercial District, Industrial Park District, Residential Development District, and Industrial District, which is situated along the coast of the West Branch Penobscot River. These four districts comprise the town's Growth Area. The largest zone in town is the Rural District. Other districts in East Millinocket are the Aquifer Protection District and the Shoreland Protection District both of which are within the Resource Protection area in the Future Land Use Plan. As is applicable to other communities, East Millinocket adopts shoreland zoning to protect its water resources, which include portions of West Branch Penobscot River, East Branch Penobscot River, Partridge Brook Flowage, and Dolby Pond.

Medway

The Town of Medway does not currently have an adopted zoning ordinance. As depicted in the Future Land Use Plan, land is distributed between Growth Area, Rural Area, Forestland, Resource Protection, Roads, Building Footprints, and Water. Growth areas are to be located close to municipal services to minimize the cost to the municipality for the delivery and maintenance of these services. The designation of rural zones is intended to protect agricultural, forest, scenic areas, and other open space land areas from incompatible development and uses. Medway has a high intensity of Forestland followed by Rural Area and Growth Area. Designated Resource Protection areas surround East Branch Penobscot River and Penobscot River which connect and travel through the southern portion of the town.

Proposed Land Uses & Constraints to Development

Within Millinocket, East Millinocket, and Medway, there are ample opportunities for future development. In Millinocket, areas with the lowest constraints to development are in industrial zones, rural areas and growth areas. Very few areas have high constraints to development, particularly the designated growth area in the Future Land Use Plan, which supports future

development in this location. Similarly, in the designated growth area within East Millinocket's Future Land Use Plan, there are low constraints to development. The location of the proposed growth area is compatible with that of the current residential development district and commercial development district. Low constraints to development in East Millinocket coupled with the compatibility of proposed uses to current uses supports future development in the municipality. The Town of Medway has very few areas with high constraints to development. In the proposed growth area in Medway's Future Land Use Plan, there are low constraints to development. As a result, future development in the municipality is supported. To support the proposed land uses, the Katahdin region is seeking to utilize grant funding from the Northern Border Regional Commission and USDA Rural Developments Community program to expand broadband capacity. If completed, the Towns of Millinocket, East Millinocket, and Medway may consider directing increased broadband capacity towards proposed growth areas to support increased business activity including home-based businesses. Additional anticipated major municipal capital investments to support the proposed land uses have not been identified.

The proposed land uses in the Katahdin region support the region's vision by providing opportunities for growth and development while also prioritizing the protection of natural resources and open space. To ensure the continued protection of important and critical natural resources, regional growth areas will avoid these locations as much as possible and state agencies will be consulted for guidance and technical assistance.

Strategies & Policies

The following policies and implementation strategies ensure the support of the current and future land use needs in the State of Maine.

State of Maine

Policies:

Minimum policies required to address state goals:

1. To coordinate the community's land use strategies with other local and regional land use planning efforts.
2. To support the locations, types, scales, and intensities of land uses the community desires as stated in its vision.
3. To support the level of financial commitment necessary to provide needed infrastructure in growth areas.
4. To establish efficient permitting procedures, especially in growth areas.
5. To protect critical rural and critical waterfronts areas from the impacts of development.

Strategies:

Minimum strategies to meet state goals:

1. Assign responsibility for implementing the Future Land Use section to the appropriate committee, board or municipal official.
2. Using the descriptions provided in the Future Land Use section narrative, maintain, enact or amend local ordinances as appropriate to:
 - a. Clearly define the desired scale, intensity, and location of future development;
 - b. Establish or maintain fair and efficient permitting procedures, and explore streamlining permitting procedures in growth areas; and
 - c. Clearly define protective measures for critical natural resources and, where applicable, important natural resources.
 - d. Clearly define protective measures for any proposed critical rural areas and/or critical waterfront areas, if proposed.
3. Include in the Capital Investment Plan anticipated municipal capital investments needed to support proposed land uses.
4. Meet with neighboring communities to coordinate land use designations and regulatory and non-regulatory strategies.
5. Provide the code enforcement officer with the tools, training, and support necessary to enforce land use regulations, and ensure that the Code Enforcement Officer is certified in accordance with 30-A M.R.S.A. §4451.
6. Track new development in the community by type and location.
7. Direct a minimum of 75% of new municipal growth-related capital investments into designated growth areas identified in the Future Land Use section.
8. Periodically (at least every five years) evaluate implementation of the plan in accordance with Section 2.7).

Time Frame: Ongoing

Responsible Agent(s): State of Maine, East Millinocket, Millinocket, Medway

Local

Millinocket

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):

East Millinocket

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):

Medway

1. **Policy:** *None at this time*
Strategies:
Time Frame:
Responsible Agent(s):



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

KATAHDIN KI 50, LLC) SITE LOCATION OF DEVELOPMENT ACT
East Millinocket, Penobscot County) TRANSFER
MILL BUILDING DEMOLITION) AMENDMENT
L-16637-20-Y-T (approval))
L-16637-20-Z-A (approval)) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 481–489-E and Chapters 305, 373, 375, and 500 of Department rules, the Department of Environmental Protection has considered the application of KATAHDIN KI 50, LLC with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: The East Millinocket paper mill was constructed in the early 1900's. In Department Order #L-16637-20-A-N, dated December 20, 1989, the Department approved an industrial modernization project at the facility. In Department Order #L-16637-20-U-T/L-19349-L6-E-T, dated November 7, 2016, the Department approved the transfer of the buildings, structures, and fixtures located above the existing grade to the applicant. In Department Order #L-16637-20-V-A, dated February 1, 2017, the Department approved the partial demolition of the mill. Numerous other amendments, modifications and transfers have also received Department approval. The project is located on Main Street in the Town of East Millinocket.

B. Summary: The applicant is applying to transfer Department Order #L-16637-20-A-N, currently held by ACM NARM Maine, LLC. In addition, the applicant proposes to demolish the 5 & 6 Finishing Building and Stores underneath it, the Mill Offices Building, the 1 & 4 Finishing Room Building, the Machine Shop, the Engineering, Maintenance Shop, the Engineering, Maintenance and Lab Offices Building, the Roll Grinder Building, the Barking Drum Building, the Grinding Room Building, and the Recycling Production Building. Concrete from the buildings will be reduced in size and used to fill the existing foundations and other recyclable materials will be salvaged. Non-recyclable demolition material will be sent to Juniper Ridge Landfill.

The applicant submitted a Permit by Rule Notification form (PBR# 67000), pursuant to the Natural Resources Protection Act, for work adjacent to a protected natural resource which the Department accepted on November 2, 2018.

C. Current Use of Site: The paper mill at the site has been partially demolished and the foundation have been backfilled with concrete rubble and other inert fill from the demolition.

2. The applicant submitted the following information in support of this transfer request:

A. Transfer application dated July 15, 2018, and signed by Jason Inoff on behalf of ACM NARM Maine, LLC and dated July 15, 2018 and signed by Jason Inoff on behalf of Katahdin KI 50, LLC.

B. Financial Capacity: As discussed in Finding 3 below, the applicant submitted a statement from Bank of America, dated May 31, 2018, indicating that the applicant has sufficient funds for this project.

C. Technical Ability: As discussed in Finding 4 below, the applicant submitted resumes for key individuals involved in the project.

D. A Certificate of Good Standing issued by the Maine Secretary of State for Katahdin KI 50, LLC, dated August 15, 2018.

3. FINANCIAL CAPACITY:

The total cost of the project is estimated to be \$40,000.00. The applicant submitted a statement from Bank of America, dated May 31, 2018, indicating that the applicant has sufficient funds for this project.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards.

4. TECHNICAL ABILITY:

The applicant provided resume information for key persons involved with the project and a list of projects successfully constructed by the applicant. The applicant also retained the services of CES, Inc., a professional engineering firm, to assist in the design and engineering of the project.

The Department finds that the applicant has demonstrated adequate technical ability to comply with Department standards.

5. NOISE:

Chapter 375 Section 10, Control of Noise, of Department rules sets limits for the control of environmental noise that apply to this project. The proposed development is located in an area zoned as industrial by the Town of East Millinocket. For protected locations in this area, the hourly sound level limit is 70 dBA between 7:00 a.m. and 7:00 p.m., and 60

dBA between 7:00 p.m. and 7:00 a.m. The hourly sound level limit at the property line of the development for this proposal is 75 dBA at any time of the day. The applicant is proposing to limit the hours of operation to between 7:00 a.m. and 5:30 p.m. The applicant provided a list of equipment to be used during the demolition, which includes several excavators with hydraulic hammers and sheers, skid steers, loaders and trucks. The applicant proposes to work behind existing buildings and 1,000 to 1,500 feet away from the nearest protected location. The applicant anticipates this will be a minor noise source.

The Department finds that the applicant has made adequate provision for the control of excessive environmental noise from the proposed project.

6. STORMWATER MANAGEMENT:

The applicant does not propose an increase in the developed area or the impervious area of the project. It lies within the watershed of the Penobscot River. The applicant submitted a stormwater management plan based on the Basic, General, and Flooding standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of cracking the foundations prior to filling them with concrete rubble from the demolition.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of the application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, the Bureau of Land Resources (BLR).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short- and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by, and revised in response to the comments of, BLR. The applicant will be responsible for the maintenance of all common facilities including the stormwater management system.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500(4)(B).

B. General Standards:

The applicant is not proposing a formal stormwater management plan for the demolition of structures. The applicant is not required to meet the Department's General Standards because there is no increase in impervious area or developed area. Any future redevelopment at the site will require stormwater treatment in compliance with Chapter 500.

The stormwater management system proposed by the applicant was reviewed by BLR. BLR commented that the proposed stormwater management system is designed in accordance with the General Standards contained in Chapter 500(4)(C). As-built plans must be submitted to the BLR for review within 30 days of the completion of the project.

Based on BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards contained in Chapter 500(4)(C).

C. Flooding Standard:

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20, U.S.D.A., Soil Conservation Service and detains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving water will not be increased as a result of stormwater runoff from the development site.

Based on the system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500(4)(F) for peak flow from the project site, and channel limits and runoff areas.

7 GROUNDWATER:

The project site is not located over a mapped sand and gravel aquifer. The proposed project does not propose any withdrawal from, or discharge to, the groundwater. However, the groundwater at the site is contaminated from historic spills. The Bureau of Remediation and Waste Management (BRWM) reviewed the proposed project and commented that the Uncontrolled Sites Unit recommended that the foundations in certain locations in several buildings not be cracked. BRWM staff provided a map indicating the

location of potential groundwater contamination. The applicant has agreed not to break the foundations in these areas.

The Department finds that the proposed project will not have an unreasonable adverse effect on groundwater quality.

8. SOLID WASTE:

The demolition of this portion of the mill will generate several types of solid waste, including steel, aluminum, demolition debris, universal waste, and general solid waste. The applicant proposes to send the steel, stainless steel and aluminum to out-of-state recycling facilities. The applicant proposes to send the demolition debris to Juniper Ridge Landfill. The applicant proposes to utilize Gilman Electrical Services to handle all universal waste. Non-recyclable demolition material will be sent to Juniper Ridge Landfill. General solid waste will be disposed of at the Town of East Millinocket transfer station and sent to the Penobscot Energy Recovery Company's facility in Orrington. All of the facilities proposed for disposal are currently in substantial compliance with the Maine Solid Waste Management Rules.

Based on the above information, the Department finds that the applicant has made adequate provision for solid waste disposal.

9. FLOODING:

The proposed project is not located within the 100-year flood plain of any river or stream.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

10. ALL OTHER:

All other Findings of Fact, Conclusions and Conditions remain as approved in Department Order #L16637-20-A-N, and subsequent Orders.

BASED on the above findings of fact, the Department CONCLUDES that KATAHDIN KI 50, LLC has provided adequate evidence of financial capacity and technical ability to comply with all conditions of Department Order #L16637-20-A-N, and subsequent Orders, and to satisfy all applicable statutory and regulatory criteria

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 481–489-E:

- A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.

- B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities.
- C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil.
- D. The proposed development meets the standards for storm water management in 38 M.R.S. § 420-D and the standard for erosion and sedimentation control in 38 M.R.S. § 420-C.
- E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.
- F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services.
- G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

THEREFORE, the Department APPROVES the application of KATAHDIN KI 50, LLC to transfer Department Order #L-16637-20-A-N and demolish several existing buildings as described in Finding 1, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that (its, his, her, their) activities or those of (its, his, her, their) agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

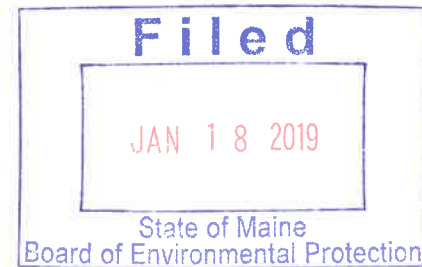
4. All other Findings of Fact, Conclusions and Conditions remain as approved in Department Order #L16637-20-A-N, and subsequent Orders, and are incorporated herein.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 18TH DAY OF JANUARY, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Mah Breen
For: Melanie Loyzim, Acting Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

JB/L16637YTZA/ATS#83517/83518

Department of Environmental Protection
SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

- A. Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited without prior approval of the Board, and the applicant shall include deed restrictions to that effect.
- B. Compliance with All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Compliance with All Terms and Conditions of Approval.** The applicant shall submit all reports and information requested by the Board or the Department demonstrating that the applicant has complied or will comply with all preconstruction terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- D. Advertising.** Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- E. Transfer of Development.** Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.
- F. Time frame for approvals.** If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- G. Approval Included in Contract Bids.** A copy of this approval must be included in or attached to all contract bid specifications for the development.
- H. Approval Shown to Contractors.** Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

(2/81)/Revised December 27, 2011

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.
- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
- (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.
 - (c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.
 - (d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.
 - (e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.
- (9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department, and must reference the permit number.
- (10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: November 2018

Contact: (207) 287-2452

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S. §§ 341-D(4) & 346; the *Maine Administrative Procedure Act*, 5 M.R.S. § 11001; and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed more than 30 calendar days after the date on which the Commissioner's decision was filed with the Board will be dismissed unless notice of the Commissioner's license decision was required to be given to the person filing an appeal (appellant) and the notice was not given as required.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017. An appeal may be submitted by fax or e-mail if it contains a scanned original signature. It is recommended that a faxed or e-mailed appeal be followed by the submittal of mailed original paper documents. The complete appeal, including any attachments, must be received at DEP's offices in Augusta on or before 5:00 PM on the due date; materials received after 5:00 pm are not considered received until the following day. The risk of material not being received in a timely manner is on the sender, regardless of the method used. The appellant must also send a copy of the appeal documents to the Commissioner of the DEP; the applicant (if the appellant is not the applicant in the license proceeding at issue); and if a hearing was held on the application, any intervenor in that hearing process. All of the information listed in the next section of this information sheet must be submitted at the time the appeal is filed.

INFORMATION APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time the appeal is submitted:

1. *Aggrieved Status.* The appeal must explain how the appellant has standing to maintain an appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions regarding compliance with the law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing requirements that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for public hearing must be filed as part of the notice of appeal, and must include an offer of proof in accordance with Chapter 2. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed evidence must be submitted with the appeal. The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered in an appeal only under very limited circumstances. The proposed evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Specific requirements for supplemental evidence are found in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made easily accessible by the DEP. Upon request, the DEP will make application materials available during normal working hours, provide space to review the file, and provide an opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a license holder may proceed with a project pending the outcome of an appeal, but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, and will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, any materials submitted in response to the appeal, and relevant excerpts from the DEP's application review file will be sent to Board members with a recommended decision from DEP staff. The appellant, the license holder if different from the appellant, and any interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. The appellant and the license holder will have an opportunity to address the Board at the Board meeting. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

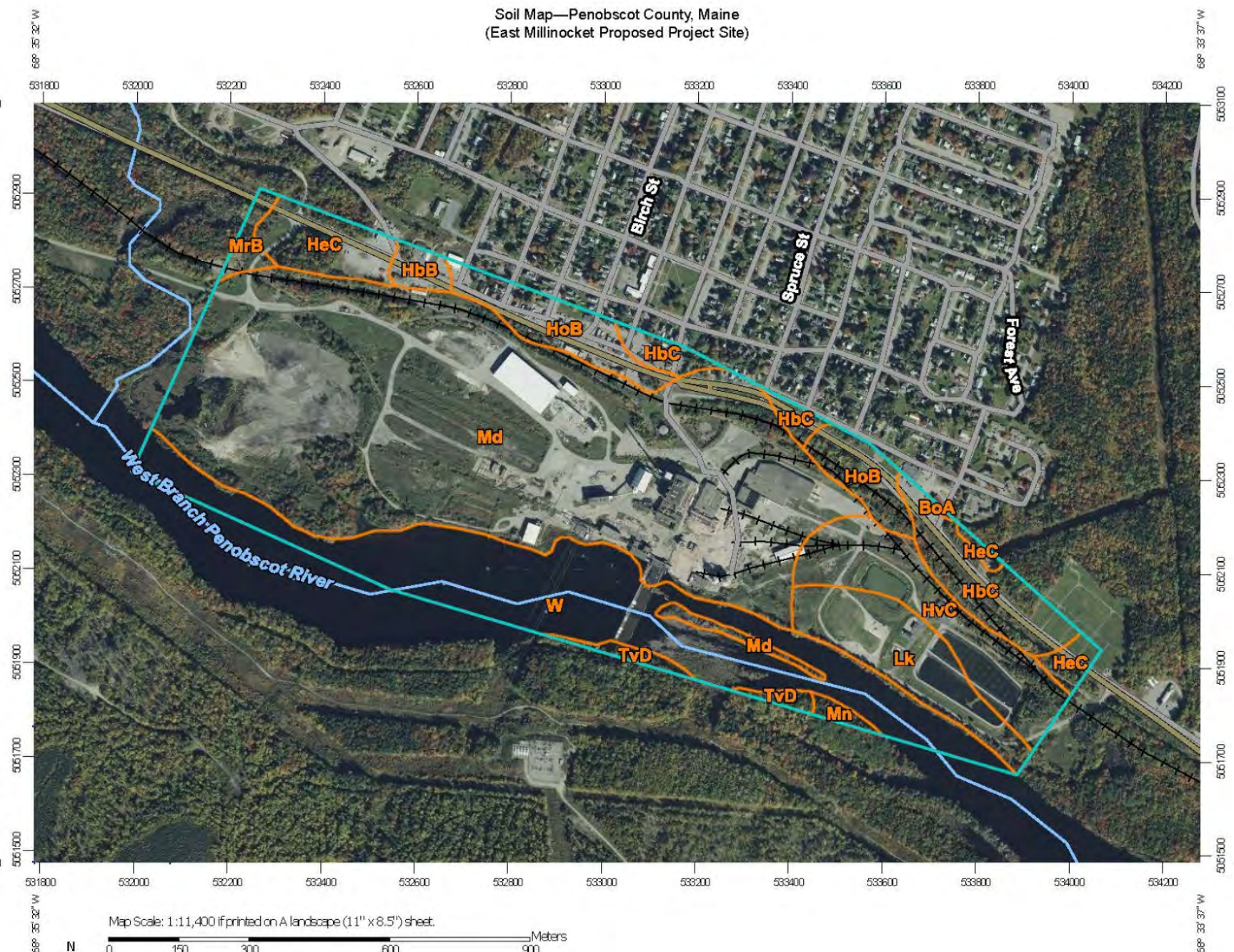
Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452, or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

Soil Map—Penobscot County, Maine
(East Millinocket Proposed Project Site)



	Map Unit Name
BoA	Biddeford mucky peat, 0 to 3 percent slopes
HbB	Hermion sandy loam, 3 to 8 percent slopes
HbC	Hermion sandy loam, 8 to 15 percent slopes
HeC	Hermion sandy loam, 8 to 15 percent slopes, very stony
HoB	Howland gravelly loam, 3 to 8 percent slopes
HvC	Howland silt loam, 8 to 15 percent slopes, very stony
Lk	Charles silt loam, 0 to 2 percent slopes, frequently flooded
Md	Made land
Mn	Mixed alluvial land
MrB	Monarda-Burnham complex, 0 to 3 percent slopes, very stony
TvD	Thorndike-Winnecook complex, 15 to 35 percent slopes, very rocky
W	Water bodies

Map Scale: 1:11,400 if printed on A landscape (11" x 8.5") sheet.

0 150 300 600 900 Meters
0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/24/2024
Page 1 of 3

Area of Interest (AOI)

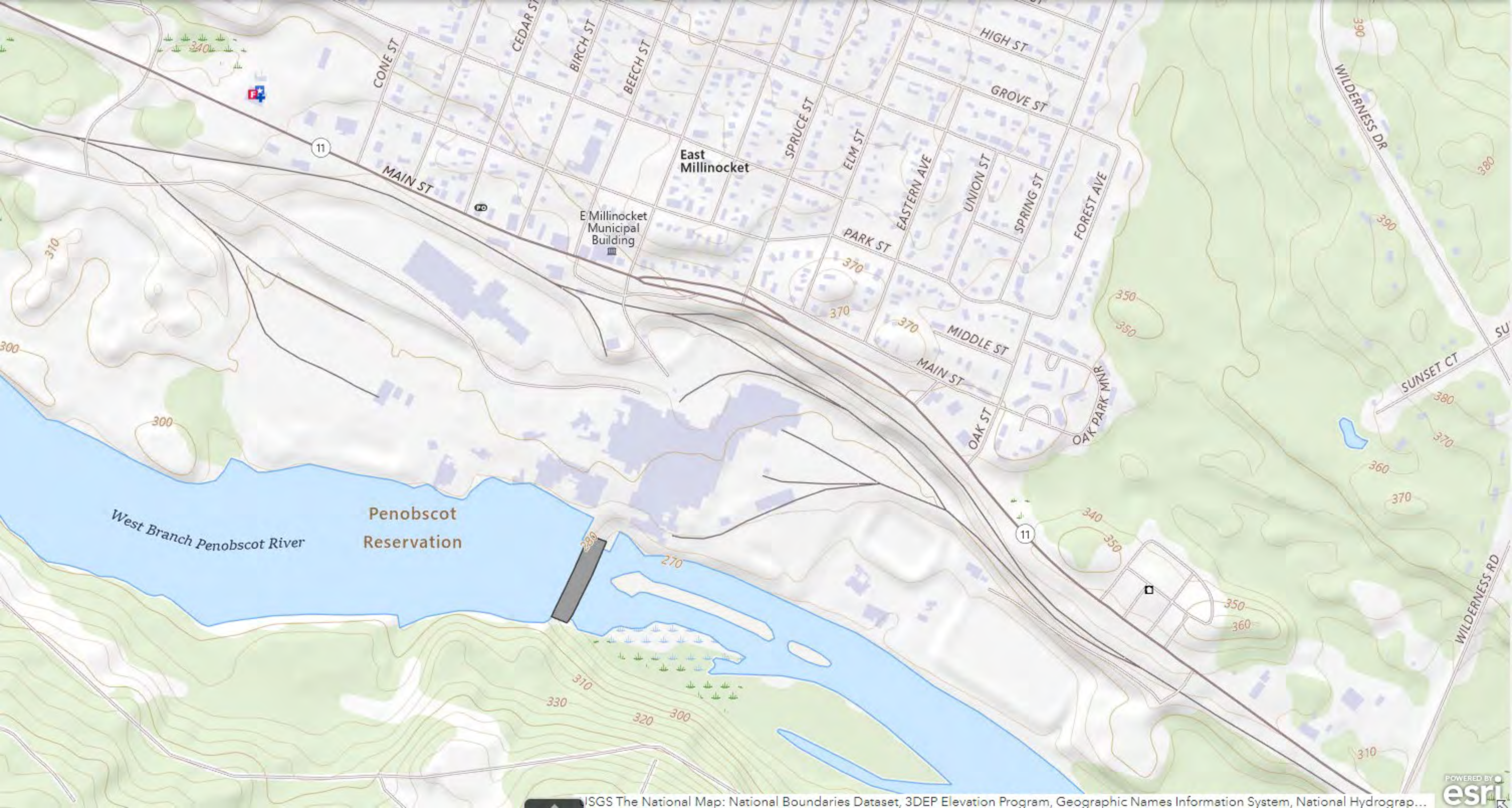
Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points





Occupational Safety and Health Administration

www.osha.gov

Worker Safety Series

Protecting Yourself from Noise in Construction



If you are a construction worker, this pocket guide is written for you. Small contractors should also find this information helpful. You are encouraged to go to the references in this document and to the OSHA website for more information.

This guidance document is not a standard or regulation, and it creates no new legal obligations. The guidance is advisory in nature, informational in content, and is intended to help construction workers and supervisors understand and reduce noise exposure on job sites. Employers are required to comply with safety and health standards as issued and enforced by either the Federal Occupational Safety and Health Administration (OSHA), or an OSHA-approved State Plan. In addition, Section 5(a)(1) of *The Occupational Safety and Health Act*, the General Duty Clause, requires employers to provide their workers with a workplace free from recognized hazards likely to cause death or serious physical harm. Employers can be cited for violating the General Duty Clause if there is such a recognized hazard and they do not take reasonable steps to prevent or abate the hazard. However, failure to implement these guidelines is not, in itself, a violation of the General Duty Clause. Citations can only be based on standards, regulations, and the General Duty Clause.

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Why is job site noise control important to me?

Exposure to high levels of noise can cause permanent hearing loss. Neither surgery nor a hearing aid can help correct this type of hearing loss. Construction sites have many noisy operations and can be a significant source of noise exposure.

Loud noise can also reduce work productivity and contribute to workplace accidents by making it difficult to hear warning signals. Hearing loss from loud noise limits your ability to hear high frequencies, understand speech, and reduces your ability to communicate, which can lead to social isolation. Hearing loss can affect your quality of life by interfering with your ability to enjoy socializing with friends, playing with your children or grandchildren, or participating in other activities.

Damage to your hearing **can be prevented**, but once permanent noise-induced hearing loss occurs, it **cannot be cured** or reversed. Hearing loss usually occurs gradually, so you may not realize it is happening until it is too late.

Noise can also **affect your body in other ways**. A recent study found that workers persistently exposed to excessive occupational noise may be two-to-three times more likely to suffer from serious heart disease than workers who were not exposed.¹

¹Gan, W. et al., Exposure to Occupational Noise and Cardiovascular Disease in the United States: NHANES 1999-2004, Occup Environ Med doi: 10.1136/oem.2010.055269.

You may have hearing loss if:

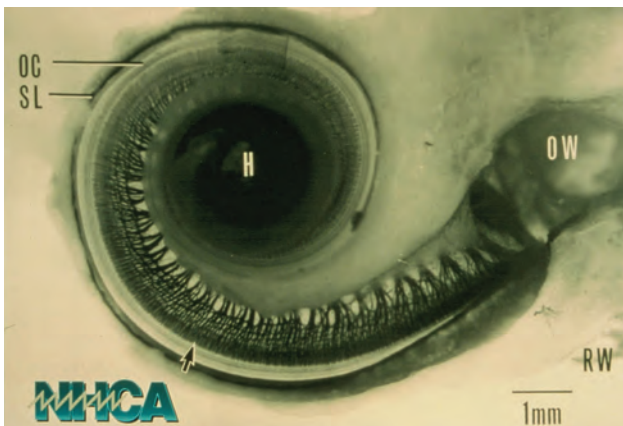
- You have a hard time hearing people in groups or meetings or if there is background noise.
- People sound as if they are mumbling.
- You have to ask people to repeat what they say.
- You have trouble understanding others on the telephone.
- You have ringing or noises in one or both ears.
- You have trouble hearing back-up alarms or the ringing of a cell phone.

How does hearing damage happen?

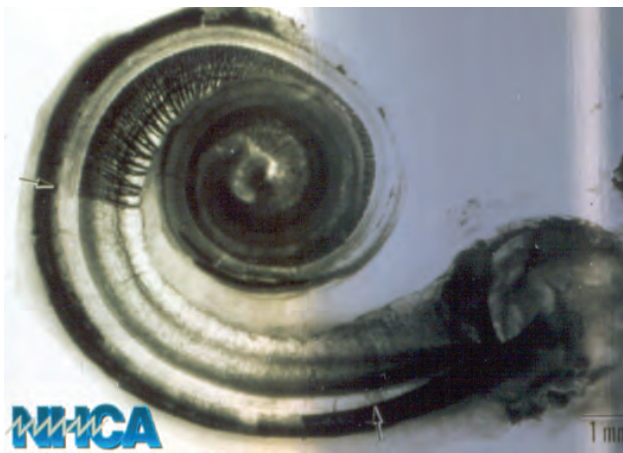
A one-time exposure to a sudden powerful noise, such as an explosion, may damage your hearing instantly. Prolonged exposures to loud noise can lead to a gradual, but permanent, loss of hearing.

Damage can occur within the ear at noise levels similar to that of running a lawn mower for eight hours. At first, this may cause a temporary loss of hearing that may last as long as 14-16 hours. With repeated exposure to high noise levels and periodic exposures to very high noise levels (e.g., with the use of nail guns), as is common at most construction job sites, your hearing may not fully recover. More often, the loss of hearing occurs slowly over time from exposure to moderate levels of noise. When that happens, the hearing loss becomes permanent. This is why workplace noise is sometimes referred to as a stealth long-term hazard – because it is a painless, gradual process.

Hearing loss occurs when cilia, tiny hair cells that line the inner ear, are damaged. At first, the damage happens to the cilia that receive the higher frequencies. Gradually, noise damages more of the ear and affects how speech is heard. If you hear muffled or distorted speech sounds, that may be an indication that a substantial hearing loss has already occurred.



Healthy inner ear lined with cilia, tiny hair cells that help you hear.



Inner ear showing damage to the cilia.

In addition to hearing loss, you also may experience ringing in the ears. This is called *tinnitus*, and can occur even without other apparent hearing loss.

Graphics courtesy of National Hearing Conservation Association

How do I know if my tools or job site are too noisy?

Sound intensity is measured in decibels. When decibels are adjusted for how the ear senses sound, the sound level intensity is measured as dBA. Decibels are measured on a logarithmic scale, which means that a small increase in the number of decibels results in a huge change in the amount of noise and the potential damage to a person's hearing. So, if the level increases by 3 dBA this doubles the amount of the noise and reduces the recommended amount of exposure time by half.

Sound Level Meter and Noise Dosimeter

Safety and health inspectors measure sound or noise levels using a device called a *sound level meter*. The microphone is positioned at the user's ear level. Equipment that is determined to be loud can be labeled with a hazardous noise sticker.

OSHA uses *noise dosimeters* to document the average noise exposure over your working day or of a particular task for part of your workday.

OSHA recommends that workplace noise levels be kept below 85 dBA as an 8-hour time-weighted average. As the noise level increases, it damages your hearing more quickly.



Sound level meter



Dosimeter

Images courtesy of Casella CEL Inc., Amherst, NH.

Research indicates that your hearing can be damaged by regular 8-hour exposures to 85 dBA. When noise is as loud as 100 dBA (like a jackhammer or stud welder), it can take repeated exposures of as little as 1 hour per day to damage your hearing.

The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise-induced hearing loss. NIOSH has found that significant noise-induced hearing loss occurs at the exposure levels equivalent to the OSHA PEL based on updated information obtained from literature reviews. NIOSH also recommends a 3 dBA exchange rate so that every increase by 3 dBA represents a doubling of the amount of the noise and halves the recommended amount of exposure time.

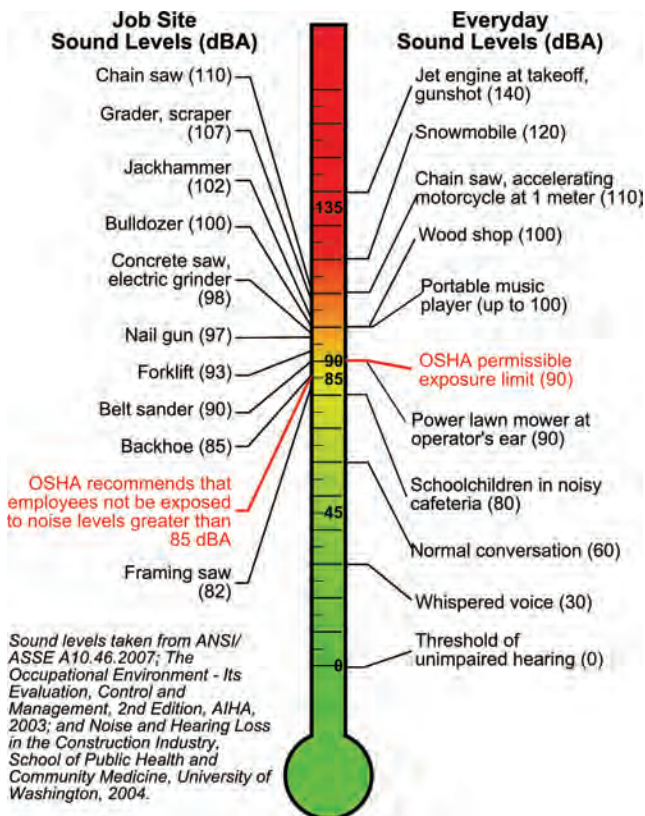
2-3 Foot Rule and Noise Indicator

When a sound level meter is not available, you should use the 2-to-3 foot rule: Stand about an arm's length away from your coworker: If you have to raise your voice to be heard 2-3 feet away, you should assume that the sound level is at or above 85 dBA.

A *personal noise indicator* is a warning device. It indicates if your immediate exposure is less than or greater than 85 dBA. It flashes green if the sound level is under 85 dBA and red when above 85 dBA.

Sound Level Chart

Equipment and daily activities at construction job sites can expose workers to high levels of noise. Sound levels on the chart below are listed in decibels (dBA) – the larger the number, the higher the volume or decibel level. How loud the noise is (volume), how long the noise lasts, and how close you are to the noise are all important in determining the hazard.



What can be done about job site noise levels?

Plan Ahead

One of the best ways to reduce exposure to hazardous noise on a work site is by planning for potential exposure before activities start. When jobs produce high noise levels, there are ways to reduce your exposure other than or in addition to hearing protectors.

For instance, your employer or supervisor can buy materials to build sound barriers or schedule noisy activities during hours when fewer people are working. Your employer can also rent or buy quieter equipment.

Your employer should hold daily or weekly safety meetings to discuss ways to limit high noise levels and other hazards. During safety meetings, the general contractor can ask sub-contractors to describe the planned tasks for the day or week where hazardous noise might be generated, as well as what equipment will be used; you can use these opportunities to talk about ways to limit exposure.

Even changes in the noise level that seem small (e.g., 3 dBA) are actually significant reductions in the noise.

Here are some specific ways to limit exposure:

- Plan to make or use prefabricated noise barriers.
- Ask your employer to buy or rent quieter equipment/tools.
- Limit the hours you work in hazardous noise areas.

- Identify equipment and work areas where signs can be posted to make other workers aware of high noise areas.
- Use hearing protection to supplement noise reduction.

Noise Control at the Job Site

The work site is where workers can have the most impact by working with employers to identify hazardous equipment, conduct hazard assessments, and apply the control process explained below. Employer support for providing supplies (acoustical insulation, extension cords, pre-fabricated noise barriers), hand tools, and sufficient set-up time are essential.

Noise Hazard Control Process

The easiest way to help lower noise levels at your work site is to remember a three-step noise hazard control process:

Reduce It: Reduce the noise by using the quietest equipment available. For example, choose a smaller, quieter generator.

Move It: Move the equipment farther away with the use of extension cords, additional welding leads, and air hoses (following current OSHA standards). Noise levels go down as we increase our distance from a noisy object. Move the generator farther away or face it in a direction that is away from where most people are working. If you are not required to be in a high noise area, move to a quieter area.

Block It: Block the noise by building temporary barriers of plywood or other on-site materials to keep the noise from reaching

workers. Place a five-sided, oversized wooden box over the generator. Add fire-resistant acoustical absorbing material (foam) inside the box. If the generator sits on soil or sand, that will help absorb some of the noise.



Photo courtesy of Build It Smart

Building a plywood barrier

Maintain and Retrofit Equipment

Proper maintenance of equipment and tools can result in lower noise levels. Changing seals, lubricating parts, using sharp blades and bits, installing mufflers, and replacing faulty or worn equipment or parts can reduce the noise levels significantly on the job site.

Do you know of equipment on your job site that could benefit from regular maintenance to reduce noise levels? Your employer should ensure that there is a regular maintenance program and that everyone follows the maintenance schedule.

With some ingenuity, even older, noisier equipment can be modified by adding mufflers, new seals, or insulated panels. Employees can use noise reduction equipment accessories when made available by the employer. Employers can look for ways to reduce the sound intensity of tools in their current inventory.

Employers can reduce job site noise levels by following OSHA recommendations:

- Identify major noise sources and possible control solutions.
- Plan ahead and limit worker exposure as much as possible.
- Perform regular maintenance.

Reminder

OSHA currently allows your employer to rely on any combination of (1) hearing protective devices with a hearing conservation program, (2) engineering controls, and (3) administrative controls to effectively reduce worker exposures below 90 dBA.

OSHA also recommends that your employer provide – and that you use – hearing protective devices any time site exposures meet or exceed 85 dBA.

What can be done if engineering and administrative controls are not enough?

Proper Selection and Use of Hearing Protection

If other control strategies to reduce noise levels can't be used or fail to reduce noise levels below OSHA's permissible exposure limits (PELs), wear a hearing protective device (29 CFR 1926.52). There are many different types of hearing protection. Each type is designed for certain noise conditions. They include the types listed in the following table. But remember – unless you wear them properly and wear them all the time in high noise areas, the devices will not be effective.

Convenience and comfort are important for frequent use of hearing protective devices. Earmuffs and foam earplugs in most cases offer the most noise reduction. However, preformed plugs or canal caps may be more convenient where construction work generates moderate daily average noise levels. There is no one device that is the best type for all situations.

Your employer is responsible for selecting, fitting, and maintaining hearing protective devices and must provide them to you at no cost and train you in their use (29 CFR 1926.101).

If you are not provided hearing protection for high noise work tasks, ask for it. If the employer refuses to provide hearing protectors, you can request an OSHA inspection.

Contractors and workers should consider the following when selecting and wearing protective gear: the noise level of the task, communication needs, convenience, comfort, hygiene, noise reduction of the hearing protective devices, and hearing ability.

Each type of hearing protection has manufacturer's directions for use and maintenance. Follow these directions and replace or fix the devices when they appear worn, dirty, or broken. Always wear hearing protection to protect yourself from high noise exposures, both on the work site and at home.






Neither portable music player headphones nor hearing aids are substitutes for hearing protective devices.

Regular Hearing Screenings

If you are routinely exposed to hazardous levels of noise, your employer should provide yearly hearing tests to monitor your hearing loss over time. If your employer does not provide these tests, you should have your hearing tested by an audiologist. The initial test (baseline) will be used as the reference test. Future tests should be compared to the baseline to see if you need to do more to protect your hearing.

These hearing tests can detect small shifts in hearing ability that have taken place since previous tests. When changes in hearing ability are detected, a retest is common to determine whether the change is permanent or temporary. Tests are relatively inexpensive and take about 20-30 minutes to conduct and get results.

Hearing Protective Devices

Type	Features	Concerns
Roll down foam 	Fits many differently shaped ear canals. Provides good protection for most noisy environments. Convenient, disposable.	Must be inserted properly to get the highest possible protection. If the plug doesn't make a good seal, it won't protect your hearing.
Reusable earplugs 	Many have flanges and handles. Come in different sizes. Come with cords, convenient to carry. Reusable. Washable.	Preformed so may not fit as wide a variety of ear canals as foam plugs. May require a different size for each ear. Must keep them clean.
Custom molded 	Molded to user's ear. Always comfortable. Long-term wear. Best for difficult-to-fit ears.	Must be made by a licensed hearing protection provider.
Canal caps 	On a band, can be worn under chin, over head, or behind neck. Can be put on and taken off quickly.	Not as comfortable as other devices. Not as much protection as other devices.
Earmuffs 	Easy to use and wear. Fit most people. Easy to keep clean.	Can be hot and heavy. May be more difficult to get a good fit with glasses and/or may interfere with other protective gear.
New Types Flat Attenuated Communication	Flat reduction of noise over all frequencies. Have a baffle to reduce impact noise. Radio Communication while still reducing noise.	Can be expensive. Must be custom fitted.

Photos: NIOSH; Howard Leight; Aearo Technologies, a 3M Company; Bilsom; WorkSafe BC; Northern Safety and Industrial.

Remember:

The best hearing protective device is the one you'll actually wear.

When looking at your hearing test, levels greater than 25 dBA indicate impairment. Furthermore, losses in the higher frequencies (3000, 4000, 6000 hertz) are more significant and you should discuss them with your audiologist.



You also can do daily monitoring of your hearing with a simple self-test. This works best if you drive yourself to work. When you reach your job site and are turning off the car engine, turn the radio on so it is just barely loud enough to hear (talk radio stations work well for this exercise) and go on with your day. When you return at the end of the work shift, check to see if you can still hear the radio with the power on, but the engine off. If you can't hear the radio, think about what may have damaged your hearing and how you could better protect your hearing.

Remember the 3 steps to noise control:

Reduce it: Use the quietest equipment available.

Move it: Locate noisy equipment away from workers.

Block it: Erect temporary barriers to block noise from reaching workers.

**YOU ONLY HAVE ONE SET OF EARS –
PROTECT THEM**

My job site is too noisy. What can I do?

First, if you feel comfortable, speak with your supervisor. If you are a union member, raise the issue with your union representative. You can also call or write OSHA.

How do I file a complaint with OSHA?

- Mail, e-mail, or fax the nearest OSHA office (visit www.osha.gov or call 1-800-321-OSHA (6742) for the address of the nearest OSHA office) and request an inspection.
- File a complaint by phone – call (800) 321-OSHA (6742); the teletypewriter (TTY) number is (877) 889-5627.
- File online from OSHA's home page:
www.osha.gov/as/opa/worker/complain.html.

Most online and phone complaints may be resolved informally over the phone with your employer. **Written complaints that are signed by a worker or representative and filed with OSHA are more likely to result in an OSHA inspection.**

Complete the OSHA complaint form, then fax or mail it back. Include your name, address, and telephone number so that we can contact you. All complaints are kept confidential.

Am I protected if I call OSHA?

The Occupational Safety and Health Act (OSH Act) prohibits employers from discriminating against their employees for using their rights under the OSH Act. These rights include filing an OSHA complaint, participating in an inspection or talking to the inspector or raising a safety and health issue with the employer.

If you believe that your employer has discriminated against you because you exercised your safety and health rights, contact your local OSHA office right away. Under the OSH Act, you only have **30 days** to report discrimination.

Call 1-800-321-OSHA (6742) and ask to be connected to your local office.

Discrimination can include:

- Firing or laying off
- Denying benefits
- Blacklisting
- Intimidation
- Denying overtime or promotion
- Reducing pay or hours
- Disciplining

Additional OSHA Assistance

Compliance Assistance Specialists

OSHA has compliance assistance specialists throughout the nation who can provide information to employers and workers about OSHA standards, short educational programs on specific hazards or OSHA rights and responsibilities, and information on additional compliance assistance resources. Contact your local OSHA office for more information.

OSHA Consultation Service for Small Employers

The OSHA Consultation Service provides **free assistance** to small employers to help them identify and correct hazards, and to improve their injury and illness prevention program. Most of these services are delivered on site by state government agencies or universities using well-trained professional staff.

Consultation services are available to private sector employers. Priority is given to small employers with the most hazardous operations or in the most high-hazard industries. These programs are largely funded by OSHA and are delivered at no cost to employers who request help. Consultation services are separate from enforcement activities. To request such services, an employer can phone or write to the OSHA Consultation Program. See the Small Business section of OSHA's website for contact information for the consultation offices in every state.

• Safety and Health Achievement Recognition Program

Under the consultation program, certain exemplary employers may request participation in OSHA's Safety and Health Achievement Recognition Program (SHARP). Eligibility for participation includes, but is not limited to, receiving a full-service, comprehensive consultation visit,

correcting all identified hazards, and developing an effective injury and illness prevention program.

OSHA Educational Materials

OSHA has many types of educational materials available in print or online, including:

- **Brochures/booklets** cover a wide variety of job hazards and other topics;
- **Fact Sheets** and **QuickFacts** contain basic background information on safety and health hazards;
- **Guidance documents** provide detailed examinations of specific safety and health issues;
- **Online Safety and Health Topics Pages**;
- **Posters**;
- **QuickCards™** are small, laminated cards that provide brief workers' rights and safety and health information; and
- **QuickTakes** is OSHA's free, twice-monthly online newsletter. To sign up for QuickTakes visit OSHA's website at www.osha.gov and click on QuickTakes at the top of the page.

To view materials available online or for a listing of free publications, visit OSHA's website at www.osha.gov. You can also call 1-800-321-OSHA (6742) to order publications, to ask questions or to get more information.

NIOSH Health Hazard Evaluation:

Getting Help on Health Hazards

The National Institute for Occupational Safety and Health (NIOSH) is a federal agency that conducts scientific and medical research on workers' safety and health. At no cost to employers or workers, NIOSH can help identify and correct potential health hazards in the workplace through its Health Hazard Evaluation (HHE) program.

Workers, union representatives and employers can request a NIOSH Health Hazard Evaluation.

An HHE is often requested when there is a higher than expected rate of a disease or injury in a group of workers. These situations may be the result of an unknown cause, a new hazard, or a mixture of sources.

To request a NIOSH Health Hazard Evaluation, or find out more about the program:

- Call the NIOSH toll-free Information Service at 1-800-CDC-INFO (1-800-232-4636); or
- Go online at www.cdc.gov/niosh/hhe/Request.html.

OSHA Regional Offices

Region I

Boston Regional Office
(CT*, ME, MA, NH, RI, VT*)
JFK Federal Building, Room E340
Boston, MA 02203
(617) 565-9860 (617) 565-9827 Fax

Region II

New York Regional Office
(NJ*, NY*, PR*, VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378 (212) 337-2371 Fax

Region III

Philadelphia Regional Office
(DE, DC, MD*, PA, VA*, WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900 (215) 861-4904 Fax

Region IV

Atlanta Regional Office
(AL, FL, GA, KY*, MS, NC*, SC*, TN*)
61 Forsyth Street, SW, Room 6T50
Atlanta, GA 30303
(678) 237-0400 (678) 237-0447 Fax

Region V

Chicago Regional Office
(IL*, IN*, MI*, MN*, OH, WI)
230 South Dearborn Street
Room 3244
Chicago, IL 60604
(312) 353-2220 (312) 353-7774 Fax

Region VI

Dallas Regional Office
(AR, LA, NM*, OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(972) 850-4145 (972) 850-4149 Fax
(972) 850-4150 FSO Fax

Region VII

Kansas City Regional Office
(IA*, KS, MO, NE)
Two Pershing Square Building
2300 Main Street, Suite 1010
Kansas City, MO 64108-2416
(816) 283-8745 (816) 283-0547 Fax

Region VIII

Denver Regional Office
(CO, MT, ND, SD, UT*, WY*)
1999 Broadway, Suite 1690
Denver, CO 80202
(720) 264-6550 (720) 264-6585 Fax

Region IX

San Francisco Regional Office
(AZ*, CA*, HI*, NV*, and American Samoa,
Guam and the Northern Mariana Islands)
90 7th Street, Suite 18100
San Francisco, CA 94103
(415) 625-2547 (415) 625-2534 Fax

Region X

Seattle Regional Office
(AK*, ID, OR*, WA*)
300 Fifth Avenue, Suite 1280
Seattle, WA 98104-2397
(206) 757-6700 (206) 757-6705 Fax

*These states and territories operate their own OSHA-approved job safety and health plans and cover state and local government employees as well as private sector employees. The Connecticut, Illinois, New Jersey, New York and Virgin Islands programs cover public employees only. (Private sector workers in these states are covered by Federal OSHA). States with approved programs must have standards that are identical to, or at least as effective as, the Federal OSHA standards.

Note: To get contact information for OSHA area offices, OSHA-approved state plans and OSHA consultation projects, please visit us online at www.osha.gov or call us at 1-800-321-OSHA (6742).

Appendix: More Information on Noise Protection

Here are some online references on noise control and hearing conservation:

Construction Noise in British Columbia, by the Workers' Compensation Board:

<http://hearingconservation.healthandsafetycentre.org/pdfs/hearing/ConstructionNoise.pdf>

eLCOSH, the Electronic Library of Construction Occupational Safety and Health:

<http://www.elcosh.org/en/browse/49/noise.html>

How Loud Is Too Loud? A guide you can download with decibel levels:

<http://www.nidcd.nih.gov/health/hearing/pages/sound-ruler.aspx>

Laborers' Health and Safety Fund of North America (LHSFNA):

<http://www.lhsfna.org/noise>

National Institute for Occupational Safety and Health (NIOSH) Noise Meter:

<http://www.cdc.gov/niosh/topics/noise/noisemeter.html>

NIOSH Power Tools Database:

<http://wwwn.cdc.gov/niosh-sound-vibration>

OSHA's Field Operations Manual:

http://www.osha.gov/OshDoc/Directive_pdf/CPL_02-00-148.pdf

OSHA Hearing Conservation for the Hearing-Impaired Worker:

<http://www.osha.gov/dts/shib/shib122705.html>

OSHA Noise and Hearing Conservation eTool:

<http://www.osha.gov/dts/osta/otm/noise/index.html>

OSHA Noise and Hearing Conservation Safety and Health Topics Page:

<http://www.osha.gov/SLTC/noisehearingconservation/index.html>

Standards for States with OSHA-approved State Plans:

<http://www.osha.gov/dcsp/osp/statestandards.html>

The personal hearing protection devices chart on page 14 was adapted from *Toolbox Talks: Hearing Conservation in the Shipbuilding Industry*, developed through the Alliance Program, an OSHA Cooperative Program:

[http://www.shipbuilders.org/Portals/Shipbuilders/PP PDFs/Tool Box Talk series - hearing conservation in Shipbuilding - FINAL - 042409.pdf](http://www.shipbuilders.org/Portals/Shipbuilders/PP%20PDFs/Tool%20Box%20Talk%20series%20-%20hearing%20conservation%20in%20Shipbuilding%20-%20FINAL%20-%20042409.pdf)

What Causes Tinnitus?:

<http://www.nidcd.nih.gov/health/hearing/tinnitus.htm#2>



**If you have
questions, call OSHA.
We can help.**

For more information:



**Occupational
Safety and Health
Administration**

**U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)**

East Millinocket CDP, Maine

East Millinocket CDP, Maine is a city, town, place equivalent, or township located in [Maine](#). East Millinocket CDP, Maine has a land area of 1.0 square miles.

Populations and People

Total Population

1,560

P1 | 2020 Decennial Census

Education

Bachelor's Degree or Higher

22.5%

S1501 | 2023 American Community Survey 5-Year Estimates

Housing

Total Housing Units

857

H1 | 2020 Decennial Census

Families and Living Arrangements

Total Households

672

DP02 | 2023 American Community Survey 5-Year Estimates

Income and Poverty

Median Household Income

\$44,306

S1901 | 2023 American Community Survey 5-Year Estimates

Employment

Employment Rate

44.1%

DP03 | 2023 American Community Survey 5-Year Estimates

Health

Without Health Care Coverage

6.3%

S2701 | 2023 American Community Survey 5-Year Estimates

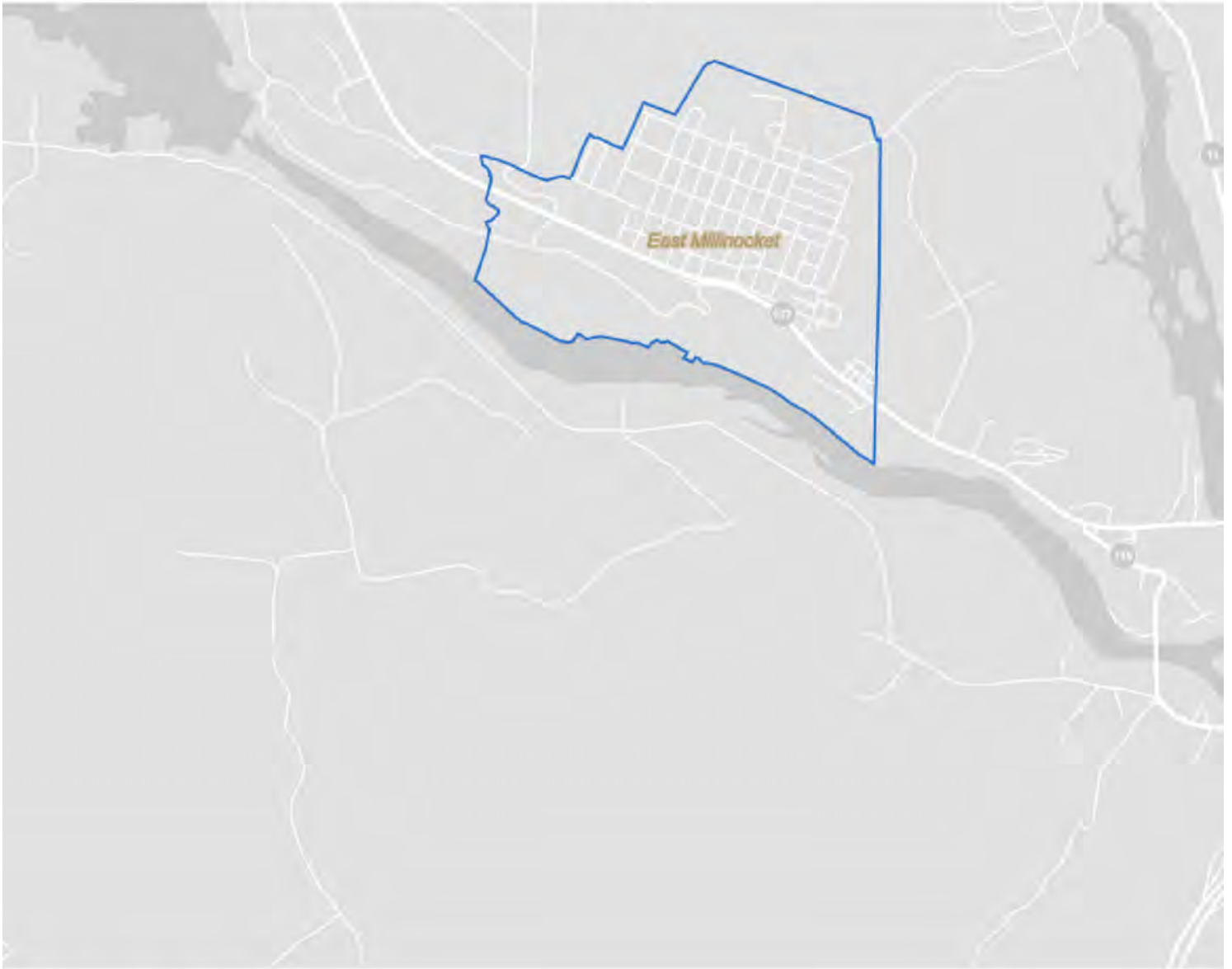
Race and Ethnicity

Hispanic or Latino (of any race)

19

P9 | 2020 Decennial Census

East Millinocket CDP, Maine Reference Map



Source: U.S. Census Bureau

Populations and People

Age and Sex

43.9 ± 5.4

Median Age in East Millinocket CDP, Maine

44.9 ± 0.2

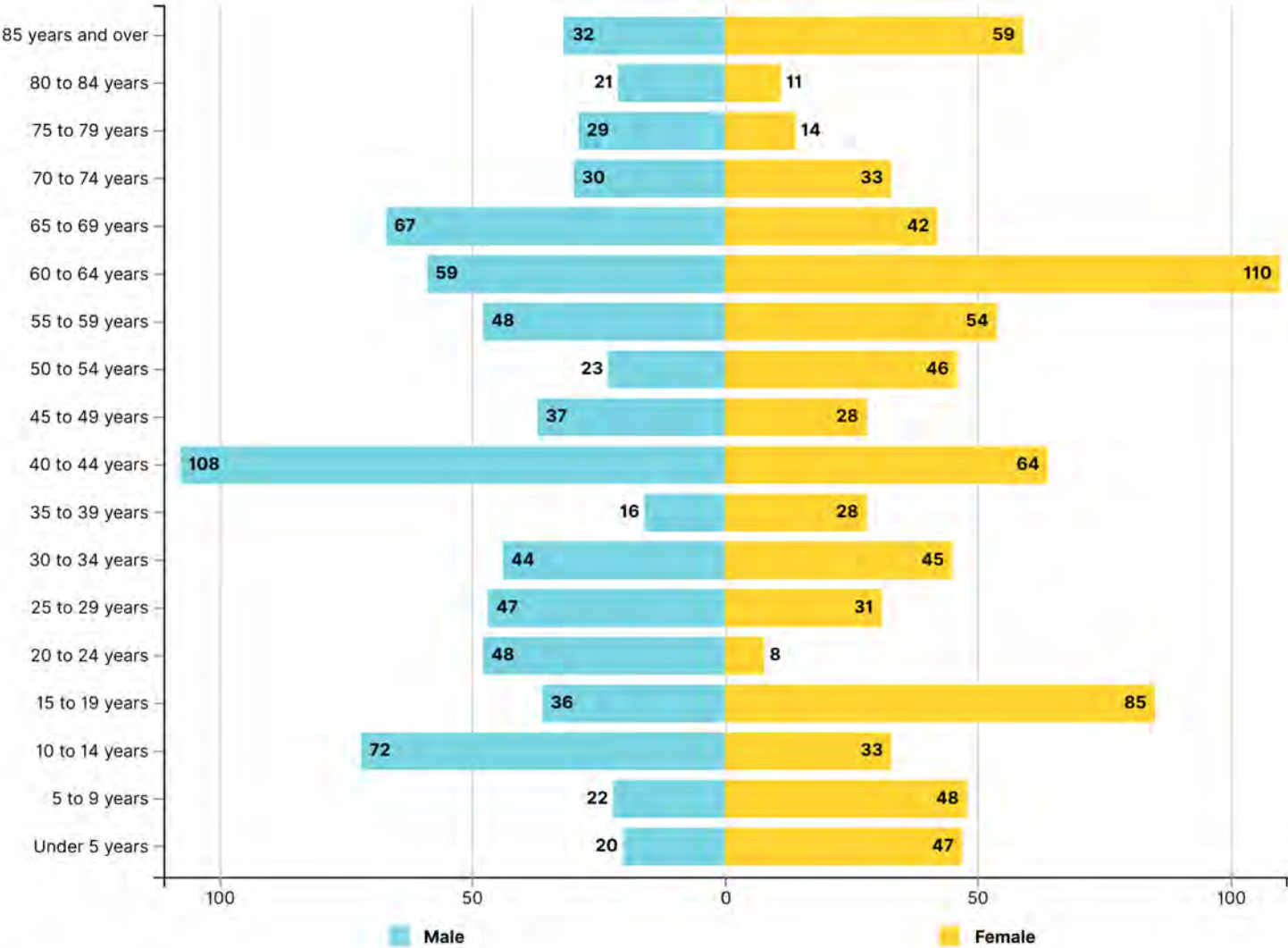
Median Age in Maine

[S0101](#) | 2023 American Community Survey 5-Year Estimates

Population Pyramid: Population by Age and Sex
in East Millinocket CDP, Maine

[Share](#) / [Embed](#)

East Millinocket CDP, Maine



[Display Margin of Error](#)
S0101 | 2023 ACS 5-Year Estimates Subject Tables

Language Spoken at Home

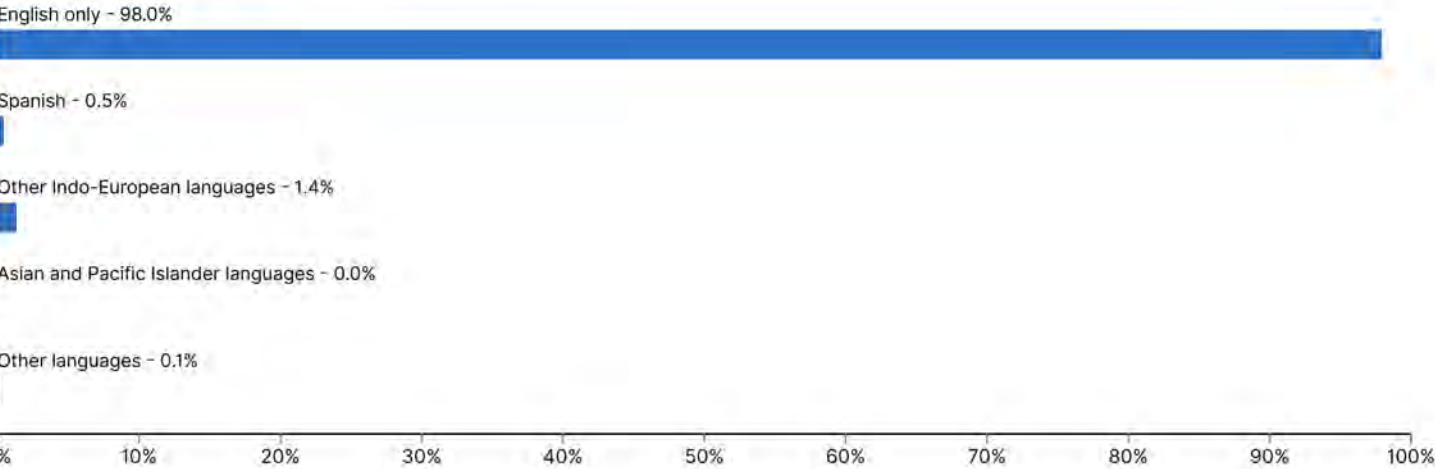
2.0% ± 1.0%
Language Other Than English Spoken at Home in East Millinocket CDP, Maine

5.7% ± 0.4%
Language Other Than English Spoken at Home in Maine

S1601 | 2023 American Community Survey 5-Year Estimates

Types of Language Spoken at Home
in East Millinocket CDP, Maine

[Share](#) / [Embed](#)



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S1601 | 2023 American Community Survey 5-Year Estimates

Native and Foreign-Born

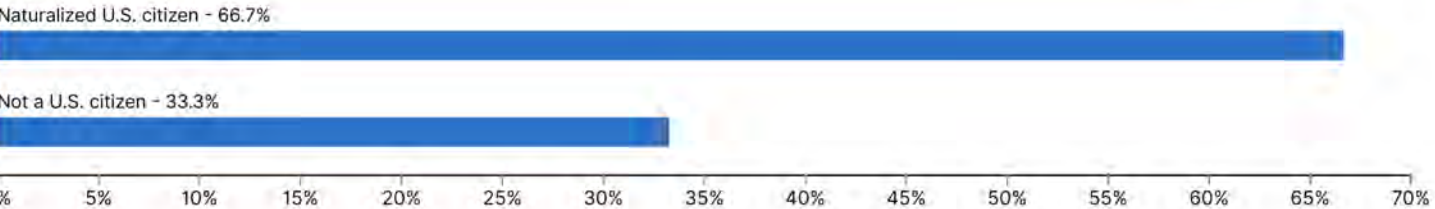
0.4% \pm 0.4%
Foreign-Born population in East Millinocket CDP, Maine

3.8% \pm 0.3%
Foreign-Born population in Maine

DP02 | 2023 American Community Survey 5-Year Estimates

Foreign-Born Population
in East Millinocket CDP, Maine

[Share](#) / [Embed](#)



☐ Display Margin of Error
DP02 | 2023 American Community Survey 5-Year Estimates

Older Population

21.9% \pm 4.7%
65 Years and Older in East Millinocket CDP, Maine

22.9% \pm 0.1%
65 Years and Older in Maine

DP05 | 2023 American Community Survey 5-Year Estimates

Older Population by Age

in East Millinocket CDP, Maine

[Share](#) / [Embed](#)

65 to 74 years - 11.1%



75 to 84 years - 4.9%



85 years and over - 5.9%



0% 2% 4% 6% 8% 10% 12% 14% 16%

☐ Display Margin of Error

DP05 | 2023 American Community Survey 5-Year Estimates

Residential Mobility

1.3% $\pm 1.4\%$

Moved From a Different State in the Last Year in East Millinocket CDP, Maine

2.7% $\pm 0.3\%$

Moved From a Different State in the Last Year in Maine

S0701 | 2023 American Community Survey 5-Year Estimates

Residential Mobility in the Last Year

in East Millinocket CDP, Maine

[Share](#) / [Embed](#)

Moved within the same county - 5.6%



Moved from different county, same state - 2.9%



Moved from a different state - 1.3%



Moved from abroad - 0.0%

0% 1% 2% 3% 4% 5% 6% 7% 8% 9% 10%

☐ Display Margin of Error

S0701 | 2023 American Community Survey 5-Year Estimates

Veterans

10.6% $\pm 3.0\%$

Veterans in East Millinocket CDP, Maine

8.0% $\pm 0.4\%$

Veterans in Maine

S2101 | 2023 American Community Survey 5-Year Estimates

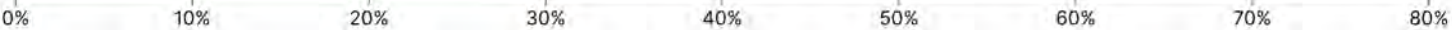
Veterans by Sex

in East Millinocket CDP, Maine

[Share](#) / [Embed](#)

Male - 72.2%

Female - 27.8%



☐ Display Margin of Error
S2101 | 2023 American Community Survey 5-Year Estimates

East Millinocket CDP, Maine Reference Map



Source: U.S. Census Bureau

Race and Ethnicity

American Indian and Alaska Native

4

American Indian and Alaska Native alone in East Millinocket CDP, Maine

7,885

American Indian and Alaska Native alone in Maine

P8 | 2020 Decennial Census

Asian

8

Asian alone in East Millinocket CDP, Maine

16,798

Asian alone in Maine

[P8](#) | 2020 Decennial Census

Black or African American

5

Black or African American alone in East Millinocket CDP, Maine

25,752

Black or African American alone in Maine

[P8](#) | 2020 Decennial Census

Hispanic or Latino

19

Hispanic or Latino (of any race) in East Millinocket CDP, Maine

26,609

Hispanic or Latino (of any race) in Maine

[P9](#) | 2020 Decennial Census

Native Hawaiian and Other Pacific Islander

0

Native Hawaiian and Other Pacific Islander alone in East Millinocket CDP, Maine

443

Native Hawaiian and Other Pacific Islander alone in Maine

[P8](#) | 2020 Decennial Census

Not Hispanic or Latino

1,474

White alone, not Hispanic or Latino in East Millinocket CDP, Maine

1,228,264

White alone, not Hispanic or Latino in Maine

[P9](#) | 2020 Decennial Census

Some Other Race

7

Some Other Race alone in East Millinocket CDP, Maine

9,730

Some Other Race alone in Maine

[P8](#) | [2020 Decennial Census](#)

Two or More Races

53

Two or More Races in East Millinocket CDP, Maine

64,710

Two or More Races in Maine

[P8](#) | [2020 Decennial Census](#)

White

1,483

White alone in East Millinocket CDP, Maine

1,237,041

White alone in Maine

[P8](#) | [2020 Decennial Census](#)

East Millinocket CDP, Maine Reference Map



Source: U.S. Census Bureau

Income and Poverty

Income and Earnings

\$44,306 ± \$9,775

Median Household Income in East Millinocket CDP, Maine

\$73,733 ± \$1,699

Median Household Income in Maine

[S1901](#) | 2023 American Community Survey 5-Year Estimates

Median Income by Types of Families

in East Millinocket CDP, Maine

[Share](#) / [Embed](#)

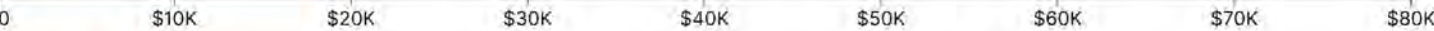
Families - \$69,219



Married-couple families - \$71,250



Nonfamily households - \$17,857



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S1701 | 2023 American Community Survey 5-Year Estimates

Poverty

18.5% ± 6.5%

Poverty, All people in East Millinocket CDP, Maine

10.4% ± 0.6%

Poverty, All people in Maine

S1701 | 2023 American Community Survey 5-Year Estimates

Poverty by Age

in East Millinocket CDP, Maine

[Share](#) / [Embed](#)

Under 18 years - 18.5%



18 to 64 years - 19.0%



65 years and over - 17.2%





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S1701 | 2023 American Community Survey 5-Year Estimates

EM Critical Habitat

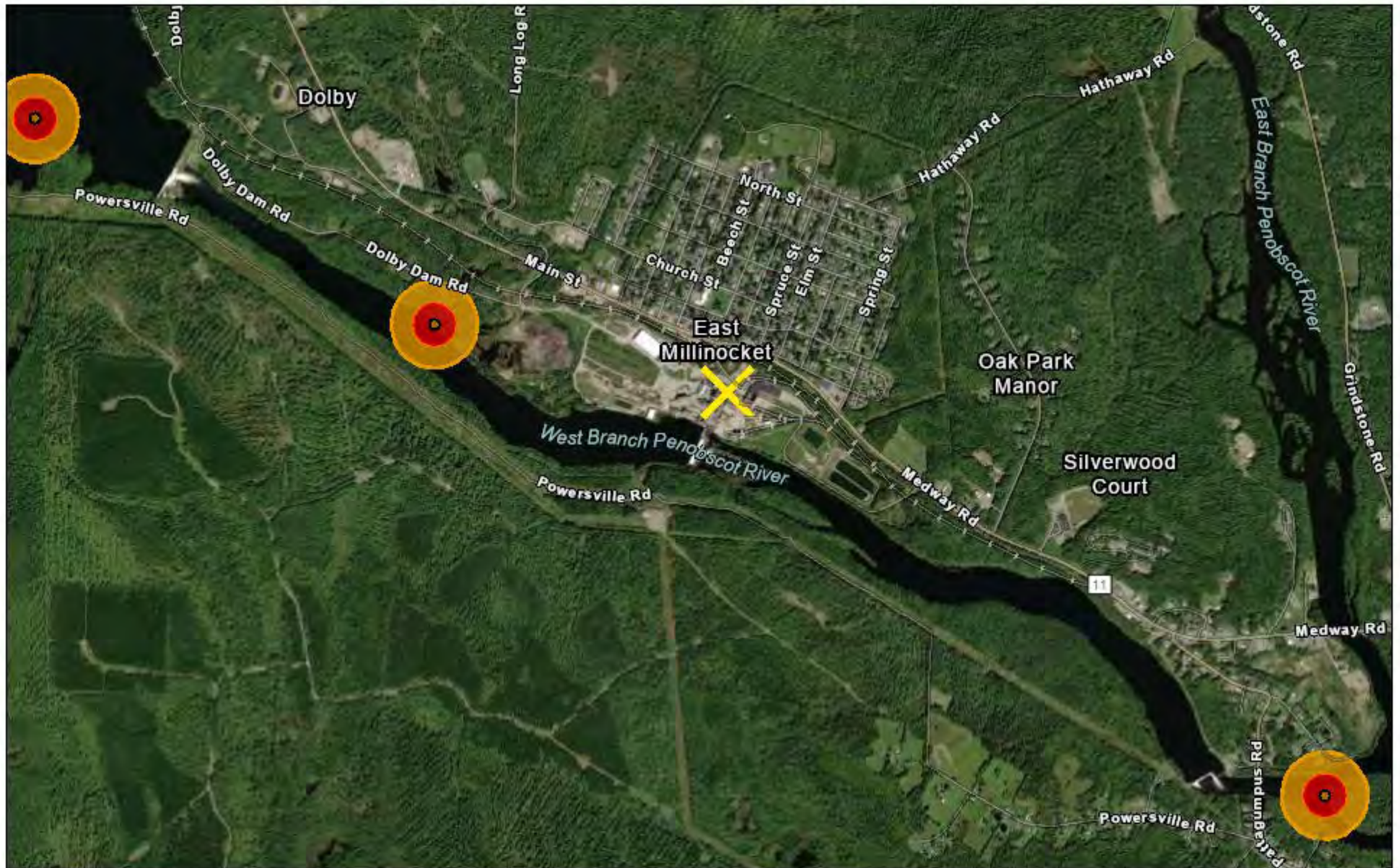


July 3, 2024

-  Critical Habitat - Polygon Features - Final
-  East Millinocket Mill Redevelopment AE

1:35,000
0 0.2 0.4 0.8 mi
0 0.33 0.65 1.3 km
Province of New Brunswick, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau.

Bald Eagle Nests - Maine

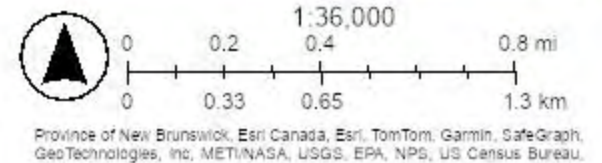


6/10/2024

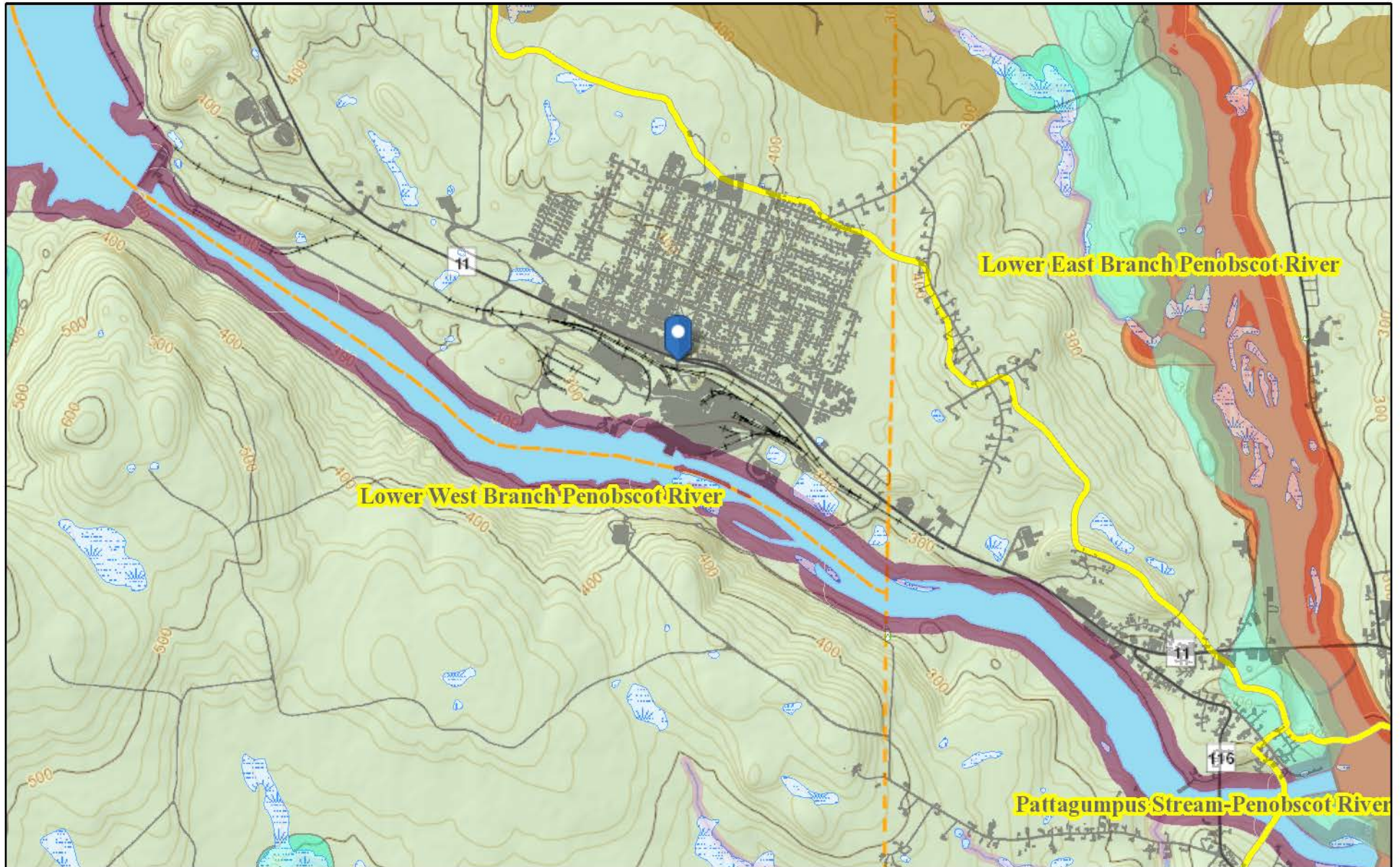
- Bald Eagle Nest Sites
- Bald Eagle Nest Buffer Polygons
 - 330
 - 660
- World Imagery

Low Resolution 15m Imagery
 High Resolution 60cm Imagery
 High Resolution 30cm Imagery

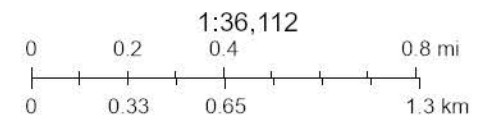
Citations
 9.6m Resolution Metadata



Beginning With Habitat



June 10, 2024





Mitigation Plan

East Millinocket Mill Site Renovations and Infrastructure

Town of East Millinocket, Maine

2024 HUD Community Planning and Development Program

Award #: B-24-CP-ME-1107

May 2025

Prepared by:

Stillwater Environmental Engineering, Inc (SEE)

PO Box 426, Orono, ME 04473

<https://stillwaterenv.com/>



1. Purpose

A Mitigation Plan (MP) is required, as specified in the Council on Environmental Quality's (CEQ's) National Environmental Policy Act (NEPA) Implementing Regulations Revisions Phase 2, [40 C.F.R. § 1505.3\(c\)-1505.3\(e\) \(2024\)](#), when the reasonably foreseeable effects of a proposed action in an environmental assessment (EA) or environmental impact statement (EIS) is based on implementation of mitigation, and the lead or cooperating agency incorporates the mitigation into a finding of no significant impact (FONSI), Record of Decision (ROD), or separate decision document.

This MP is being provided for the East Millinocket (Maine) East Millinocket Mill Site Renovations and Infrastructure project (Proposed Action). The lead agency is the US Department of Housing and Urban Development (HUD), which awarded funds through its 2024 Community Planning and Development-Community Project Funding (CPD/CPF) program, Award # B-24-CP-ME-1107.

The MP is an important tool for translating applicable mitigation measures outlined in the Proposed Action's Environmental Review Record (ERR) into specific, implementable, and verifiable actions. The RE has tailored the contents of the MP to the complexity of the mitigation to which the Proposed Action is committed. The MP is an action plan that clearly defines:

1. **Mitigation measures.** Actions that reduce or eliminate potential negative environmental impacts resulting directly or indirectly from a particular project or activity, including environmental limiting factors that constrain development.
2. **Responsible parties.** Parties responsible for monitoring and implementing the mitigation.
3. **Availability.** How, if appropriate, monitoring data will be made available to the public.
4. **Timeframe.** Anticipated timeframe for implementing and completing mitigation.
5. **Standards for compliance.** Criteria that demonstrate whether mitigation measures are suitable and implemented effectively. Include consequences for non-compliance.
6. **Funding.** How the mitigation will be funded.

This MP is a living document and should be reviewed and updated as necessary throughout the implementation of the Proposed Action. Updates should be made, for example, when



SEE

new environmental impacts are identified or if changes in the scope of the Proposed Action occur, including modifications made through award amendments.

2. Project/Activity Summary

The Proposed Action is part of Phase II of a larger initiative that is underway to repurpose the site of the former Great Northern Paper mill in East Millinocket, Maine. Proposed activities include maintenance, repair, and renovations of five existing structures to make them useable for future commercial/industrial tenants; removal of demolition debris from previously demolished structures; and connecting two buildings to the existing subsurface municipal water and sewer systems. Mitigation measures to reduce the potential impacts associated with ground disturbing and noise producing activities have been identified as a result of the analysis in the ERR.

The Town's Site Representative, relevant EPA Brownfield program regulators and consultant(s), and project contractors would play a role in implementing mitigation measures during various phases of project work. Relevant portions of this MP will be included in the construction contract specifications. The contractor(s) will be responsible for implementing mitigation measures related to their scope of work during construction and post-construction. These responsibilities will be clearly outlined in the contract specifications, ensuring that all identified mitigation measures are followed. Oversight of these activities will be provided by the Town's Site Representative.

3. Mitigation Plan Table for HUD-funded activities

The Mitigation Plan Table (next page) provides the mitigation measures identified to reduce potential impacts associated with project activities that are part of the Proposed Action. These mitigation measures are outlined in the *Mitigation Measures and Conditions* section of the project's final ERR.

Documentation of implementation of mitigation measures will be provided to HUD by the Responsible Party.

Mitigation Plan Table.

Mitigation Measure (with Timeline for Implementation)	Implementation Indicator(s) and Documentation	Monitoring and Reporting Frequency	Responsible Party(ies)*	Funding	Law, Authority, or Factor
<i>Action(s) that reduces or eliminates potential negative environmental impacts resulting directly or indirectly from the project activity, including environmental limiting factors that constrain development.</i>	<i>Criteria that demonstrate whether mitigation measures are suitable and implemented effectively and appropriate documentation.</i>	<i>Timeframe for appropriately monitoring the effectiveness of each specific action.</i>	<i>Appropriate, knowledgeable positions assigned to each specific action.</i>	<i>How the mitigation will be funded.</i>	<i>Resource area(s) for which negative impacts will be reduced as a result of the mitigation measure.</i>
1. Implement erosion and sedimentation control before and during construction.					
a. Install and maintain physical erosion and sedimentation control BMPs (e.g., silt fencing, erosion control berms, storm drain inlet protection, etc.) before and during ground disturbance, until ground disturbing activities are complete.	Indicator: Erosion and sedimentation control measures follow guidance found in Maine DEP’s 2016 <i>Maine Erosion and Sediment Control BMP Manual</i> and/or 2015 <i>Maine Erosion and Sediment Control Practices Field Guide for Contractors</i> .	Inspect E&SC BMPs weekly during ground-disturbing activities. Maintain BMPs as needed to ensure their continued effectiveness.	Site Representative, Contractor(s)	HUD	Contamination and Toxic Substances; Erosion / Drainage and Storm Water Runoff; Water Resources; Wetlands Protection
b. Implement operational BMPs for erosion and sediment control during ground disturbing activities (e.g., minimize disturbance and the use of heavy equipment during rain events).		Inspect operational BMPs weekly and report deficiencies to contractor/construction foreman.	Site Representative, Contractor(s)	HUD	Contamination and Toxic Substances; Erosion / Drainage and Storm Water Runoff; Water Resources; Wetlands Protection
2. Adhere to State development rules and permitting requirements before, during, and after project activities.					
a. State of Maine Ch. 500 standards required under existing Site Location of Development Act (SLODA) License # L-16637-20 (an amendment to the existing License would be required): -Stormwater Management, Erosion and Sedimentation Control for any ground disturbing activity.	Indicator: Erosion control details will be included on any final project plans and the erosion control narrative will be included in project specifications to be provided to the construction contractor. Documentation: Copy of Maine DEP-approved SLODA amendment; E&SC inspection reports.	<u>Before activity:</u> Applicable E&SC plans. <u>During Activity:</u> Weekly E&SC inspection	Site Representative, Contractor	HUD	Contamination and Toxic Substances; Erosion / Drainage and Storm Water Runoff; Water Resources; Wetlands Protection
3. Adhere to Federal and State remediation program (EPA Brownfields and Maine DEP VRAP) conditions and institutional and engineering controls throughout the project.					
a. Implement site-wide EMMP to identify the presence of contaminated soils in areas of disturbance and reduce the potential of their transport. Consult with MDEP Division of Remediation and Waste Management for guidance and approval on implementing EMMP procedures for excavation areas.	Potentially contaminated soils are characterized and managed following MDEP accepted procedure.	Follow timeframe and documentation requirements described in Section 4.0 of the EMMP.	Site Representative, Remediation Consultant, MDEP	Brownfields, VRAP	Contamination and Toxic Substances
b. VRAP site-wide institutional controls: 1. No groundwater is extracted for human consumption; 2. Excavation adheres to Soils Management Plan (equivalent to EMMP); 3. Property use is restricted to industrial use.	1. No groundwater is extracted for human consumption; 2. Excavation adheres to the EMMP; 3. Property use is restricted to industrial use.	1. During construction; 2. Follow the timeframe and documentation requirements described in Section 4.0 of the EMMP; 3. Ongoing.	Site Representative, Remediation Consultant, MDEP	Brownfields, VRAP	Contamination and Toxic Substances
c. VRAP site-wide engineering controls: -Avoid disturbing identified capped PCB spill areas in <u>Study Area 2</u> (No. 2 Train Shed and Shipping Area).	Capped PCB spill locations are not disturbed.	During construction.	Site Representative, Remediation Consultant, Contractor(s)	Brownfields, VRAP	Contamination and Toxic Substances

Mitigation Measure (with Timeline for Implementation)	Implementation Indicator(s) and Documentation	Monitoring and Reporting Frequency	Responsible Party(ies)*	Funding	Law, Authority, or Factor
d. VRAP/Brownfields Remediation Areas recommendations : - <u>Study Area 2</u> : Avoid disturbing previously excavated and filled petroleum contamination area; - <u>Study Area 2</u> : Avoid disturbing soil along railbed in Train Shed area; - <u>Study Area 3</u> : Avoid disturbing previously excavated and filled UST area; - <u>Study Area 3</u> : Follow EMMP for any ground disturbance in Maintenance Area and around Training Center; - <u>Study Area 4</u> : Follow EMMP for any ground disturbance.	Before and during construction activities, review work for possible ground disturbance in identified areas requiring mitigation measures. Where feasible, avoid disturbance in these areas. When disturbance cannot be avoided in these areas, notify MDEP of the proposed disturbance and ensure that construction activities are performed in accordance with the EMMP and that potentially contaminated soils are characterized and managed following MDEP accepted EMMP procedure.	Before and during construction activities; Follow the timeframe and documentation requirements described in Section 4.0 of the EMMP.	Site Representative, Remediation Consultant, MDEP, Contractor(s)	Brownfields, VRAP	Contamination and Toxic Substances
4. Conduct construction activities between August - March, to reduce noise impacts on migratory bird breeding.	Construction activities are conducted, as practicable, between August and March.	Daily informal monitoring during construction activities.	Site Representative, Contractor(s)	N/A	Endangered Species Act
5. Minimize vehicle and equipment idling during construction.	Construction vehicles and equipment are turned off when not in use.	Daily informal monitoring during construction activities.	Site Representative, Contractor(s)	N/A	Endangered Species Act

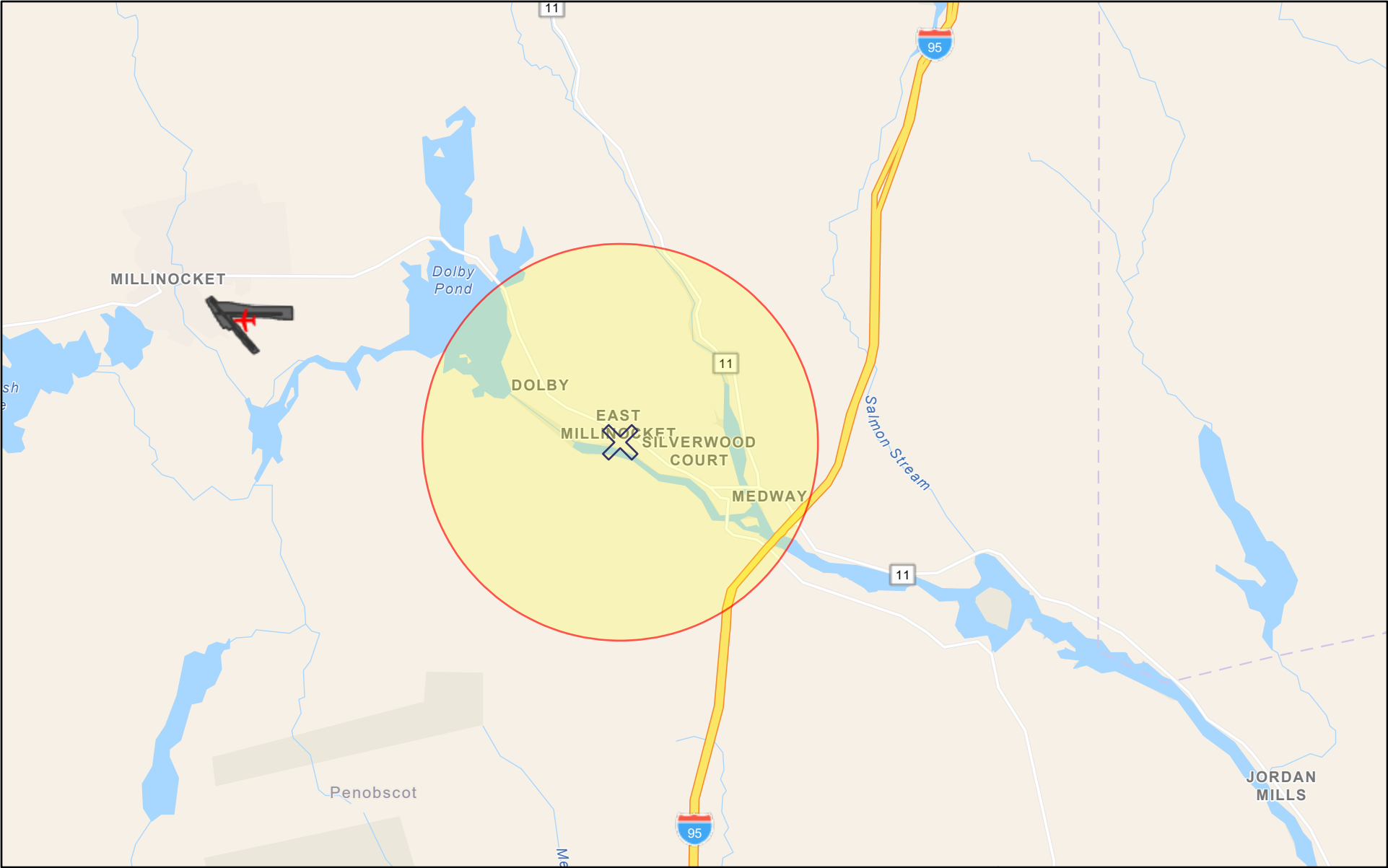
***Responsible Parties**

Site Representative: Mike Michaud, Town of East Millinocket

Remediation Consultant: Zack Bonin, TRC

MDEP: Ted Wolfertz, Bureau of Remediation

East Millinocket - Airport Hazards



May 6, 2025

-  Project Buffer
-  East Millinocket Mill Redevelopment
-  Airport Points
-  Airport Polygons

0124

01.753.57

mi

1:180,000

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, EPA OEI

Coastal Barrier Resources System Mapper Documentation



CBRS Units

- ☐ Otherwise Protected Area
- ☒ CBRS Buffer Zone
- ☐ System Unit
- 68.574951, 45.622931

0 65 130 260 390 ft
1:4,514

The pin location displayed on the map is a point selected by the user. Failure of the user to ensure that the pin location displayed on this map correctly corresponds with the user supplied address/location description below may result in an invalid federal flood insurance policy. **The U.S. Fish and Wildlife Service (Service) has not validated the pin location with respect to the user supplied address/location description below. The Service recommends that all pin locations be verified by federal agencies prior to use of this map for the provision or denial of federal funding or financial assistance.** Please note that a structure bisected by the Coastal Barrier Resources System (CBRS) boundary (i.e., both "partially in" and "partially out") is within the CBRS and therefore affected by CBRA's restrictions on federal flood insurance. A pin placed on a bisected structure must be placed on the portion of the structure within the unit (including any attached features such as a deck or stairs).

User Name: Tiffany Wilson

User Organization: SEE

User Supplied Address/Location Description: 50 Main Street, East Millinocket

Pin Location: Outside CBRS

Pin Flood Insurance Prohibition Date: N/A

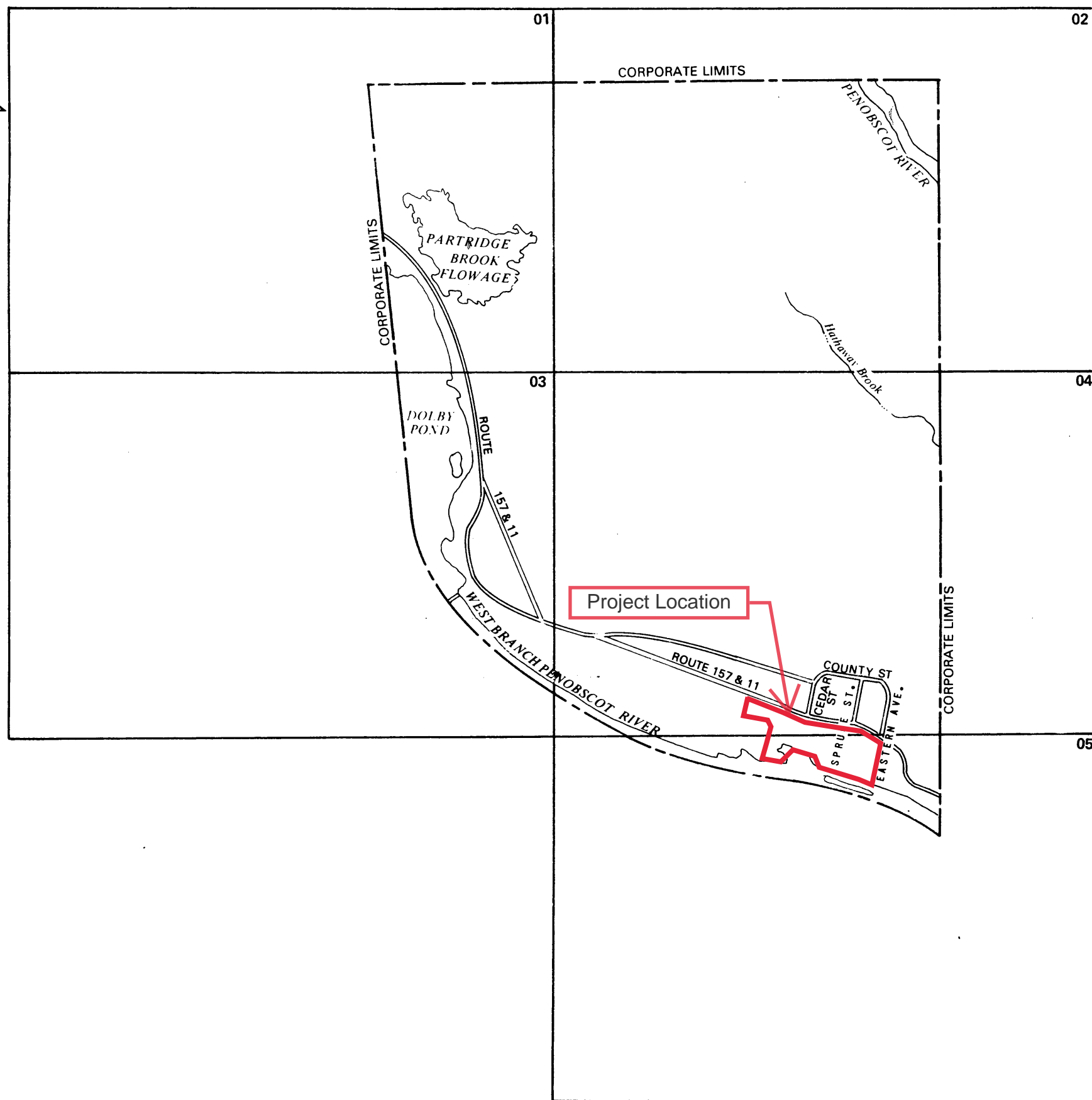
Pin System Unit Establishment Date: N/A

The user placed pin location is not within the CBRS. The official CBRS maps are accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>.

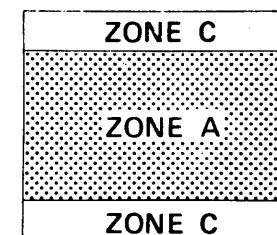
The CBRS information is derived directly from the CBRS web service provided by the Service. This map was exported on 5/6/2025 and does not reflect changes or amendments subsequent to this date. The CBRS boundaries on this map may become superseded by new boundaries over time.

This map image may be void if one or more of the following map elements do not appear: basemap imagery, CBRS unit labels, prohibition date labels, legend, scale bar, map creation date. For additional information about flood insurance and the CBRS, visit: <https://www.fws.gov/node/263838>.





KEY TO SYMBOLS



ZONE DESIGNATIONS*

Base Flood Elevation Line with elevation in feet	513
Base Flood Elevation where uniform within zone	(EL 987)
Elevation Reference Mark	RM7x
River Mile	M1.5

*EXPLANATION OF ZONE DESIGNATIONS

A flood insurance map displays the zone designations for a community according to areas of designated flood hazards. The zone designations used by FEMA are:

Zone	Explanation
A	Areas of 100-year flood, base flood elevations and flood hazard factors not determined
AO	Areas of 100-year shallow flooding, flood depth 1 to 3 feet, product of flood depth (feet) and velocity (feet per second) less than 15
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet, base flood elevations are shown, but no flood hazard factors are determined
A1-A30	Areas of 100-year flood, base flood elevations and flood hazard factors determined
A99	Areas of 100-year flood to be protected by a flood protection system under construction, base flood elevations and flood hazard factors not determined
B	Area between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot
C	Areas outside 500-year flood
D	Areas of undetermined, but possible, flood hazards
V	Areas of 100-year coastal flood with velocity (wave action), base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action), base flood elevations and flood hazard factor determined

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only. It does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.

INITIAL IDENTIFICATION: **AUGUST 23, 1974**

FLOOD HAZARD BOUNDARY MAP REVISIONS: **JULY 9, 1976**

FLOOD INSURANCE RATE MAP EFFECTIVE: **FEBRUARY 4, 1987**

FLOOD INSURANCE RATE MAP REVISIONS:



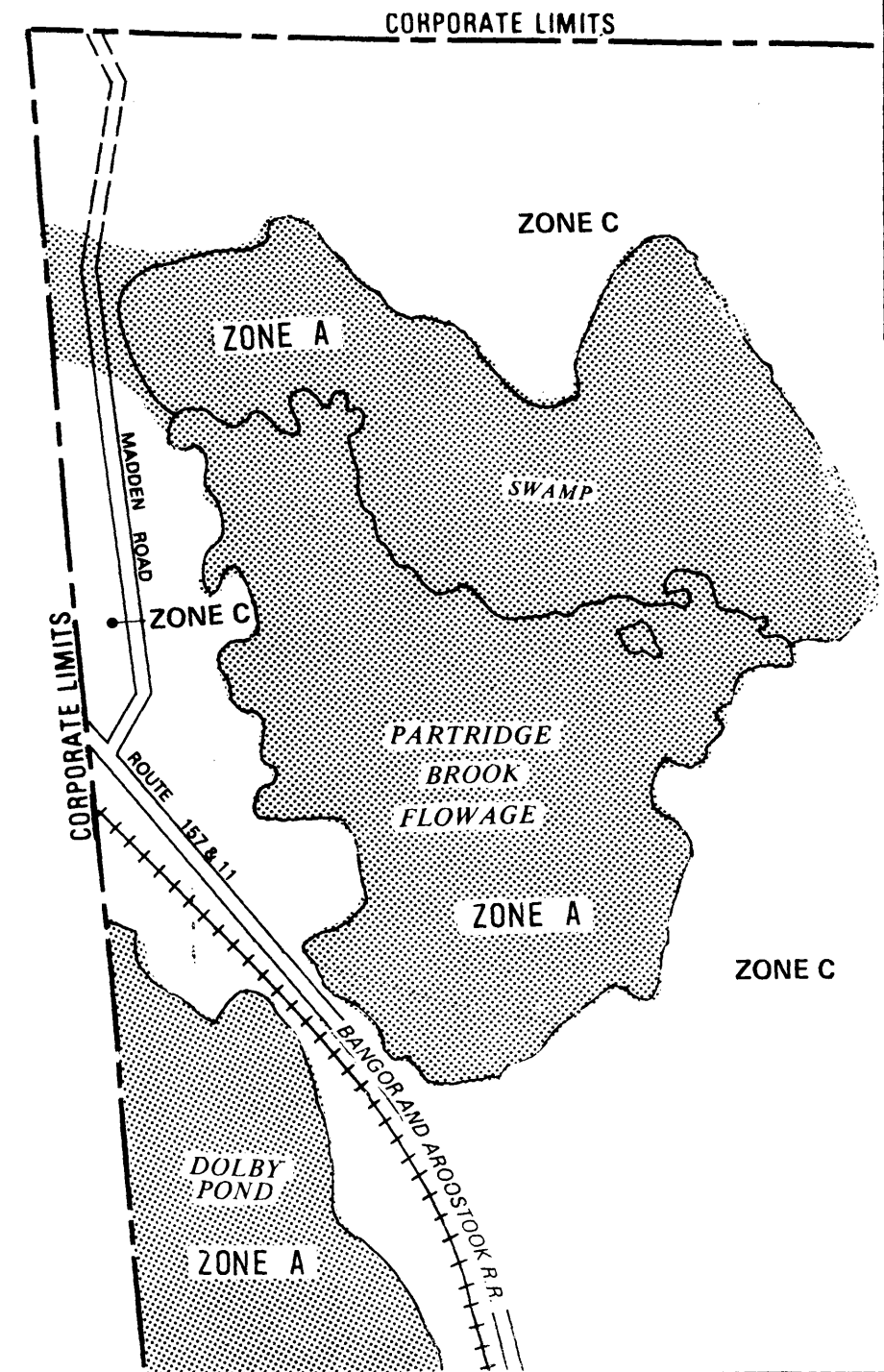
federal emergency management agency

FIRM FLOOD INSURANCE RATE MAP 01-05 MAP INDEX

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

COMMUNITY NUMBER **230163 B**

JOINS 03



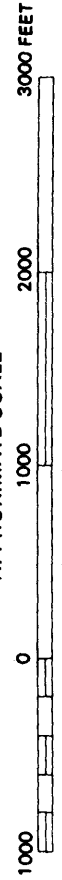
JOINS 02

federal emergency management agency

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

01

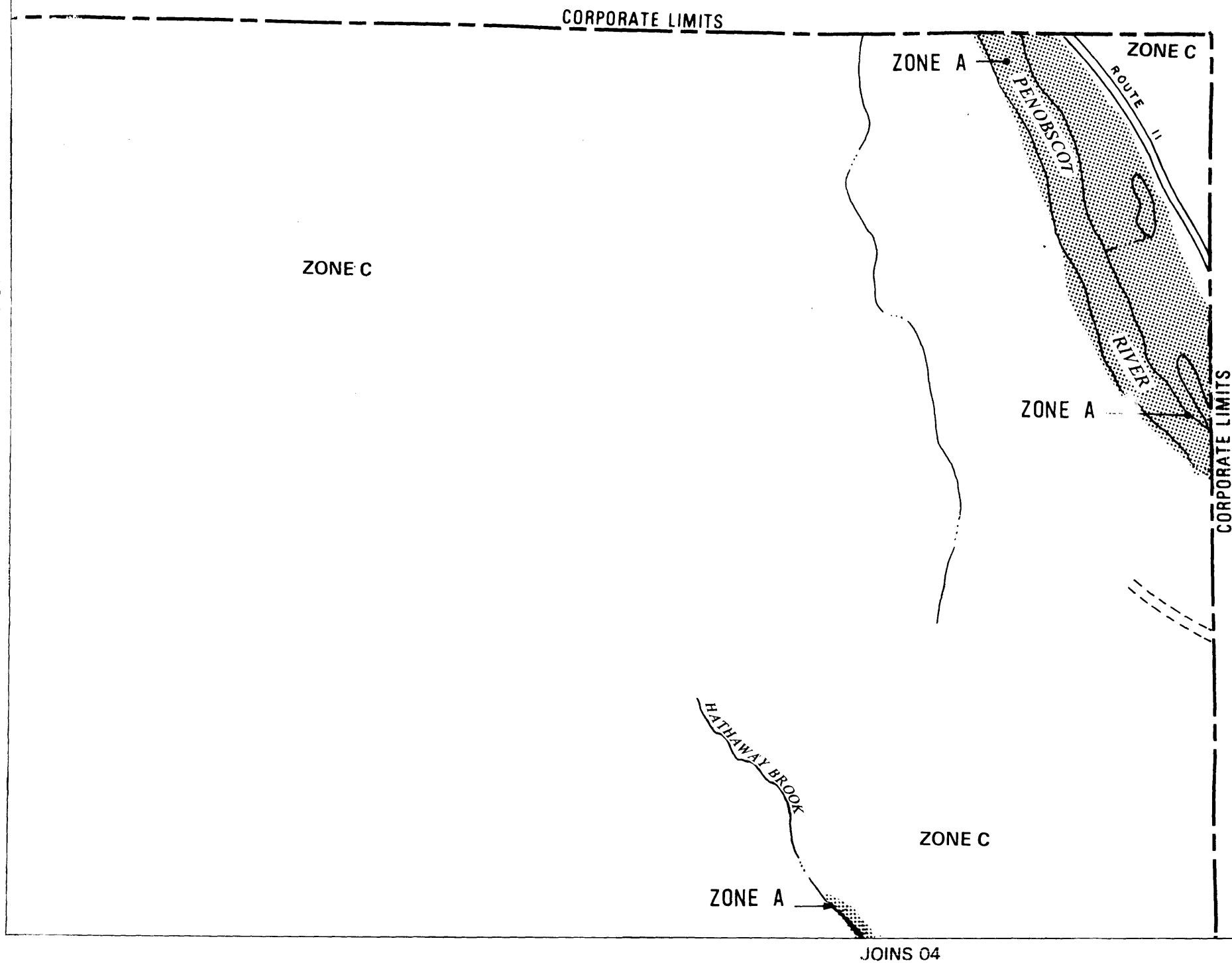
APPROXIMATE SCALE



FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

JOINS 01



federal emergency management agency

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

APPROXIMATE SCALE



FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

JOINS 01



JOINS 04

federal emergency management agency

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

APPROXIMATE SCALE
1000 0 1000 2000 3000 FEET
FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

The map displays the Town of Bangor, Maine, with various zoning districts and corporate limits. A red rectangle highlights the "Project Location" in the central part of the town, near the intersection of North Street and Western Avenue. The map is divided into Zone A (hatched pattern) and Zone C (stippled pattern). Key streets include North Street, Western Avenue, Cedar Street, Birch Street, Park Street, Maple Street, Elm Street, Spruce Street, Pine Street, Church Street, High Street, Orchard Street, Spring Street, and Eastern Avenue. Landmarks such as Spencer Brook, Bangor and Aroostook R.R., and West Branch Penobscot River are also shown. A north arrow and a scale bar (0 to 100 feet) are located in the top right corner. The corporate limits of the town are indicated by a dashed line on the right side of the map.

ZONE C

ZONE A

ZONE C

CORPORATE LIMITS

JOINS 05



federal emergency management agency

TOWN OF EAST MILLINOCKET, ME

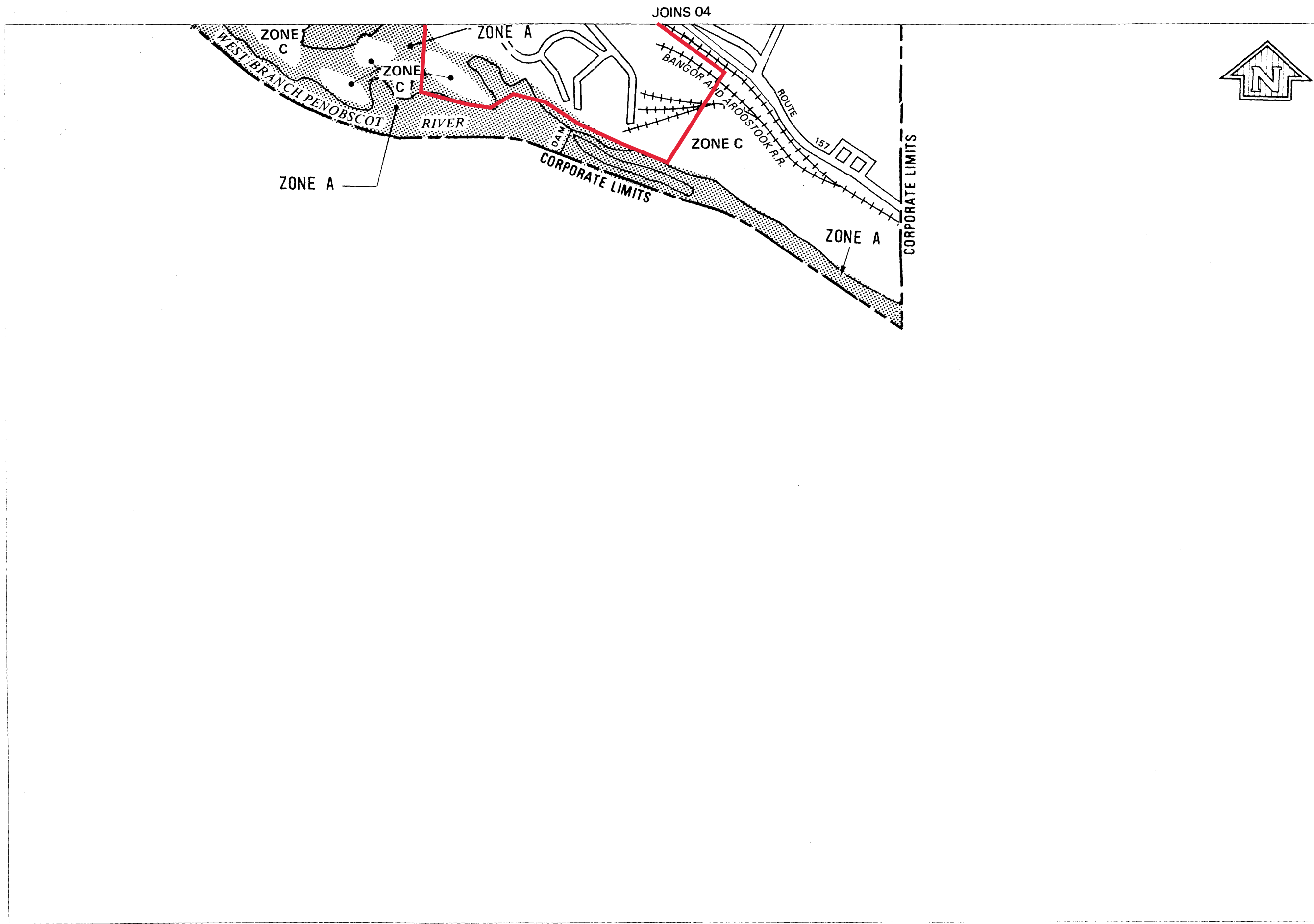
PENOBSCOT COUNTY

FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

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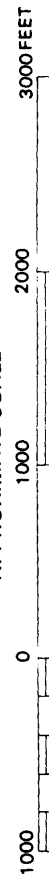
04



federal emergency management agency

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

APPROXIMATE SCALE



FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

8-Step Decision-Making Process

Mill Site Redevelopment Infrastructure Improvements – East Millinocket, Maine

2023 Catalyst Program

Award # NBRC-23-GME08

Northern Border Regional Commission

June 21, 2024

The Northern Border Regional Commission (NBRC) is considering whether to fund the following Proposed Action under its **Catalyst** program. NBRC has prepared an 8-Step Decision-Making Process review in compliance with Executive Order (EO) 11988 (Floodplain Management) as amended by EO 13690 (Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input), which established a more protective standard for evaluating flood risk to ensure projects funded by the Federal government are more resilient to the impacts of flooding.

Description of the Proposed Action

The proposed project, Mill Site Redevelopment Infrastructure Improvements, will enhance functionality and safety for businesses located on the repurposed campus of the former Great Northern Paper (GNP) mill site at 50 Main Street in East Millinocket. The Proposed Action is part of a larger initiative that is underway to generate economic revitalization and new employment in a rural and disadvantaged region. The project includes three elements to improve infrastructure at the former mill site: (1) Constructing Stormwater Management Upgrades, (2) Constructing Road Improvements for surface transportation within the site, and (3) Providing Enhanced Perimeter Security. Stormwater management upgrades would include the repair/replacement of failing culverts, storm drain and catch basin installation in high-priority areas, drainage ditch maintenance, minor detention pond maintenance, and site grading to eliminate areas of ponding. The project would improve transportation within and around the mill site by re-paving up to 42,000 square yards of existing roadways and installing guardrails adjacent to the river. Additionally, the project would improve security by installing/repairing perimeter fences, security barriers, and security cameras. These prioritized activities will enable the expansion of existing businesses and the location of new enterprises by mitigating risks posed by potential stormwater impacts or a lack of comprehensive site security.

To fulfill the purpose and need of the Proposed Action, the following are the Town's criteria for project site selection:

- (a) The project must utilize existing Town-owned infrastructure; and
- (b) The project must contribute to the larger initiative to redevelop and repurpose the centralized, Town-owned former mill site.

This analysis will consider impacts to the floodplain and concerns for damage or loss of property, as well as practicable alternatives to the Proposed Action.

Step 1: Determine if the Proposed Action is located in a floodplain.

Portions of the Proposed Action are located within or adjacent to Zone A (area of 100-year flood, base flood elevations, and flood hazard factor not determined), as indicated on Flood Insurance Rate Map (FIRM) No. 01-05 for Community Number 230163B, effective February 4, 1987, and Maine Flood Hazard Map (MFHM) showing Maine Floodplain Program Q3 data. Q3 data is a layer of digitized flood zones (at a scale of 1:24,000) derived from the old, approximate data, used with confirmation from the official, printed FIRM maps. The FIRM and MFHM Q3 maps can be found in **Attachment 1** of this document.

The Proposed Action involves the construction of stormwater and transportation infrastructure, and due to its location, EO 11988 - Floodplain Management applies. This project requires an 8-step analysis of the direct and indirect impacts associated with the construction, occupancy, and modification of the floodplain.

EO 13690 establishes the Federal Flood Risk Management Standard (FFRMS), a floodplain resiliency standard that established three approaches for determining the boundaries of a floodplain:

1. **Climate-informed science (CISA)** – Utilizing best-available, actionable data and methods that integrate current and future changes in flooding based on science.
2. **Freeboard Value Approach (FVA)** – Two (2) or three feet (3) of elevation above the 100-year, or 1 percent-annual change, base flood elevation (BFE). Three (3) feet is used for critical actions and two feet for other actions.
3. **0.2-percent-annual-chance Flood Approach (0.2PFA)** – 0.2 percent annual chance flood (also known as the 500-year flood).

For the Proposed Action, the floodplain boundary was determined using the FVA approach based on the *best available information* for the former GNP mill site where the Proposed Action would occur (“Site”). A combination of sources, including FEMA, the Maine Floodplain Management Program, Brookfield Renewables, and recent topographical data of the site, were consulted.

To update and gain further accuracy for floodplain boundaries within the site, Stillwater Environmental Engineering, Inc. corroborated the FIRM and Q3 mapped data with a more current set of site topography data generated in early 2024 using a combination of drone and ground-based survey techniques. From this survey, it was determined that the 100-Year Base Flood Elevation (BFE) for portions of the site above (upstream of) the Brookfield Hydro-Electric Dam is approximately at elevation 297’-298’. This was accomplished by comparing the Zone A boundary lines shown on the FIRM and Q3 Floodplain maps to existing ground contours referenced in the NGVD 29 vertical datum. As indicated by the FIRM and Q3 maps, all portions of the mill site located downstream of the Brookfield hydroelectric dam are outside of the approximated 100-year floodplain.

Further data provided by Brookfield Renewables regarding hydropower dam licensing actions with the Federal Energy Regulatory Commission (FERC) indicate that the actual BFE elevation is 290.75’ for the head pond (upstream of the dam) section of the river and approximately 271.0’ for the tailwater (downstream of the dam) section, referenced in the NGVD 29 vertical datum.

A site plan comparing the FIRM/Q3 data and the Brookfield Renewables data is provided in **Attachment 2**. As indicated by Brookfield, these elevations are not the official FEMA 100-year flood levels, but a more recent data-informed estimate based on information collected for dam relicensing. Full data sets associated with Brookfield's relicensing application are not available to the public, as they are considered Critical Energy Infrastructure (CEI) information.

Based on the combination of FIRM/Q3, ground-truth topographical data, and Brookfield's modeled above- and below-dam floodplain elevations, a portion of the activities specified in the Proposed Action will occur in or adjacent to the 100-year floodplain. These activities include guardrail installation, resurfacing of approximately 2,000 square yards of the existing travelway adjacent to the guardrail, and potential regrading of an approximately 900 square yard area upslope from the guardrail.

Step 2: Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.

The Town and NBRC evaluated the Proposed Action to determine the appropriate audience based on the scale of the action, the potential for controversy, the degree of public need, the number of affected persons, and the anticipated potential impacts. Based on this analysis, a public notice was published in the Lincoln News on May 30, 2024. The [notice](#) allowed for a fifteen (15) day public comment period through June 13, 2024. See **Attachment 3** for a copy of the early notice. No public comments were received.

Step 3: Identify and evaluate the practicable alternatives.

In addition to the Proposed Action, the applicant considered and dismissed the following alternatives. Factors such as the natural environment, social concerns, economic aspects, and legal constraints were analyzed in determining the practicability of all alternatives.

No action alternative: The no action alternative would result in no federal funds supporting the Infrastructure Improvements at the mill redevelopment site. Infrastructure and associated impacts already exist at the site. The no action alternative would result in no additional adverse impacts to floodplains but would also result in no beneficial impacts to site flood resilience through improvement of stormwater management.

Alternative Site: Alternative sites for the Proposed Action were not identified given that the project is meant to improve existing infrastructure that is already in place.

Redesign the proposal: Modifying the Infrastructure Improvement project by changing the location within the floodplain is not practical given that the infrastructure to be improved already exists. The current Proposed Action minimizes floodplain impacts because it makes use of existing developed area and associated infrastructure, and will not result in an expansion of developed area.

Nature-based alternative: EO 13690 requires federal agencies to consider nature-based approaches when developing project alternatives. "Nature-based approach" is an umbrella term for project features designed to mimic, restore, manage, and conserve natural

processes to increase resilience.¹ Nature-based approaches were considered as alternatives to the Proposed Action. As proposed, the project would incorporate viable nature-based alternatives (minimizing disturbance and promoting vegetative buffers) as part of the general maintenance of the site's existing stormwater management system infrastructure that will allow it to function as originally intended.

Step 4: Identify potential direct and indirect impacts associated with floodplain development.

Property impacts: The Proposed Action is estimated to cost \$750,000. This is an additional property/monetary value that does not currently exist at the Proposed Action location and has the potential to be lost or otherwise damaged as a result of a flooding event.

Impacts to lives: Proposed infrastructure improvements within the floodplain would have minimal impacts to lives because few individuals would use or be located within these features (e.g., industrial site travelways, security fences) during times of high flood risk.

Impacts to Floodplains: Conducting project activities within the former mill site, adjacent to and upslope of the West Branch of the Penobscot River, per the Proposed Action, will have minimal negative impact on the floodplain because the travelways and stormwater management structures to be reconstructed/improved upon are already in place. Disturbance and elevation changes resulting from the Proposed Action (minor grade changes due to repaving and drainage improvements) are minimal within the approximate mapped floodplain.

The presence of impervious surfaces, such as the existing roads and paved areas, can contribute to increased runoff and reduced infiltration, which may affect the floodplain. However, the proposed stormwater management upgrades will mitigate these impacts. These improvements will enhance the control and management of stormwater, reducing the potential for increased runoff due to impervious surfaces.

Improved stormwater management will have beneficial impacts on the floodplain by more sufficiently controlling precipitation inputs that can increase the risk of flooding at the site. The areas associated with the Proposed Action have not experienced flooding in the recent past, but projected increases in extreme precipitation events may increase the likelihood of flooding. Upgrading stormwater infrastructure would contribute to site flood resilience.

The US Fish & Wildlife Service identifies the potential presence of endangered aquatic species, such as Atlantic Salmon, in the West Branch of the Penobscot River, adjacent to the project area. Impervious surfaces and runoff from ground-disturbing activities can have adverse impacts on the quality of receiving waters and aquatic species. The proposed construction will likely have no quantifiable impact on endangered aquatic species because the existing impervious surface area will remain the same. Recommended development practices (e.g., minimizing/avoiding flow

¹ Nature-based approaches can take the form of green infrastructure or natural infrastructure. Green infrastructure consists of projects that combine gray infrastructure with nature-based solutions to create hybrid systems that improve resilience to climate impacts, while natural infrastructure consists of projects that use natural landscapes to increase resilience to climate impacts.

alterations and land disturbance adjacent to waterways, minimizing vegetation removal, and applying erosion control practices during construction) will be followed to reduce impacts on adjacent habitats.

Step 5: Where practicable, design or modify the Proposed Action to minimize the potential adverse impacts to lives, property, and beneficial floodplain values.

There are no practicable methods to design or modify the Proposed Action to fully avoid the risk of potential impacts to property, lives, and natural values identified in Step 4; however, the applicant has identified the below actions to minimize potential impacts:

Property impacts: East Millinocket participates in the National Flood Insurance Program and has adopted and enforced a floodplain management ordinance, which serves to mitigate flood risks to properties. Stormwater management improvements will mitigate potential property damages related to precipitation events and reduce the potential for additive adverse effects of stormwaters combined with floodwaters.

The current stormwater management system, consisting of a system of storm drains, ditches, and a detention pond, is currently not functioning as designed due to years of deferred maintenance. Repairing and replacing under-performing portions of the storm drain system, maintaining ditch conveyances, and maintaining and potentially resizing the detention pond would more effectively manage large quantities of stormwater and mitigate the impacts of erosion and sedimentation related to runoff from the existing impervious areas.

Transportation infrastructure improvements will reduce the potential for travelway washouts and transport of loose road materials if floodwaters encroach the site. Enhanced road surfaces and guardrails will provide additional safety and stability, reducing the likelihood of damage during flood events.

Impacts to lives: Improvements to the existing stormwater management system will help reduce the risk of flooding at the site. By effectively controlling and channeling stormwater, these upgrades will prevent water from accumulating and creating hazardous conditions, thereby protecting the lives of those who work at or visit the former mill site. Local law enforcement and the Town of East Millinocket Public Safety dispatch are available to respond to a flood hazard situation by implementing emergency evacuation and relocation. An evacuation plan will be provided to site users. Travelway improvements will increase site accessibility for emergency responders and will better enable site users to reach designated flood safe zones in the case of emergency flood situations. Enhanced stormwater management will ensure safer conditions by reducing the likelihood of sudden flooding and improving overall site safety during extreme weather events.

Natural values impacts: The site design has minimal to negligible floodplain impacts. The Town of East Millinocket will ensure that this proposed project conforms to all state and local floodplain protection standards and will implement mitigation measures to minimize potential adverse impacts to the natural floodplain. Impacts to the floodplain will be limited due to construction occurring within the previously developed site.

The Proposed Action will result in no addition of impervious area that would adversely affect floodplain hydrology. Improvements to site drainage and stormwater management will mimic natural floodplain values, such as flow rate and erosion reduction, slowing of runoff, and storage of excess water, which are currently impeded due to existing development.

Specific mitigation measures include:

- **Stormwater Management Enhancements:** Upgrading the storm drain system will improve the control and management of stormwater, ensuring that excess water is efficiently channeled away from vulnerable areas. This will reduce the volume and speed of runoff entering the floodplain, thereby minimizing erosion and sedimentation.
- **Erosion and Sedimentation Control:** Maintaining ditch conveyances and potentially resizing the detention pond will enhance the capacity to manage large quantities of stormwater. This will prevent erosion and sedimentation by controlling the flow of water, allowing sediments to settle and reducing the transport of loose materials into the floodplain.
- **Flow Rate and Runoff Reduction:** Improved stormwater management practices will slow down the runoff, mimicking natural floodplain processes. By reducing the speed and volume of water flow, the risk of flooding and associated impacts on the floodplain will be minimized.
- **Pollution Mitigation:** Enhanced stormwater management will also address non-point source pollution from runoff. By filtering and controlling stormwater, pollutants will be captured and prevented from entering the West Branch of the Penobscot River, thus protecting water quality and aquatic habitats.
- **Storage of Excess Water:** The detention pond maintenance and potential resizing will improve the site's ability to store excess water during heavy precipitation events. This temporary storage capability will alleviate pressure on the floodplain by holding back floodwaters and releasing them slowly, thereby reducing peak flow rates.

These improvements will help preserve and enhance the natural values of the floodplain, ensuring that the area can continue to provide essential ecological functions and benefits. By implementing these mitigation measures, the project will support floodplain resilience and sustainability while minimizing adverse impacts.

Step 6: Re-evaluate alternatives

In considering the information gained in Steps 4 and 5 there are no practicable alternatives to the Proposed Action. Alternatives to the Proposed Action would fail to address community needs for economic development opportunities afforded by repurposing an existing Town-owned industrial site and enabling the occupation of that site by improving its infrastructure.

Step 7: Findings and public explanation

It is the Town's and NBRC's determination that due to 1) the identification of sufficient mitigation, 2) the lack of practicable alternatives, and 3) the importance of the Proposed

Action in the floodplain outweighs the requirements of EO 11988 and EO 13690 to avoid direct or indirect support of floodplain development and reduce the risk of flood loss.

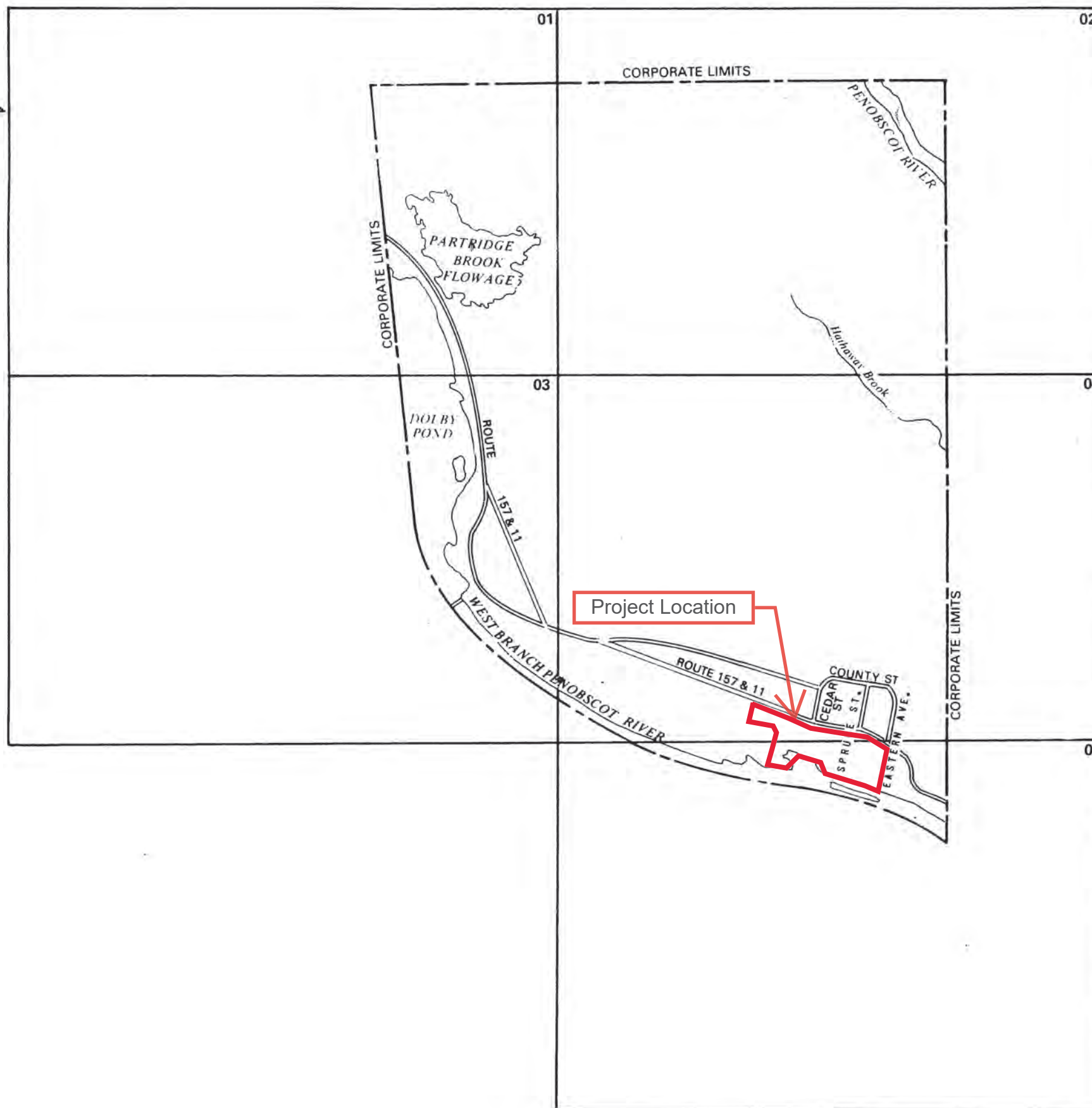
A public notice describing why the Proposed Action must be located in an FFRMS floodplain, the list of alternatives considered at Steps 3 and 6, and the mitigation measures identified in Step 5 was published in The Lincoln News on June 27, 2024. The notice allowed for a seven (7) day public comment period. See **Attachment 4** for a copy of the late notice. No public comments were received.

Step 8: Implement Proposed Action

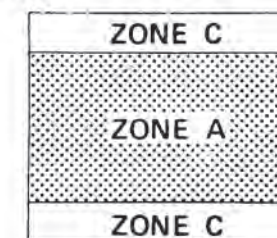
The Town and NBRC will ensure that this Proposed Action is executed as modified and described above. The Town will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur or unnecessary risks are taken.

Attachment 1

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 01-05 for Community Number 230163B, effective February 4, 1987, and Maine Flood Hazard Map (MFHM) showing Maine Floodplain Program Q3 data.



KEY TO SYMBOLS



ZONE DESIGNATIONS*

Base Flood Elevation Line with elevation in feet	513
Base Flood Elevation where uniform within zone	(EL 987)
Elevation Reference Mark	RM7x
River Mile	M1.5

*EXPLANATION OF ZONE DESIGNATIONS

A flood insurance map displays the zone designations for a community according to areas of designated flood hazards. The zone designations used by FEMA are:

Zone	Explanation
A	Areas of 100-year flood, base flood elevations and flood hazard factors not determined
AQ	Areas of 100-year shallow flooding, flood depth 1 to 3 feet, product of flood depth (feet) and velocity (feet per second) less than 15
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet, base flood elevations are shown, but no flood hazard factors are determined
A1-A30	Areas of 100-year flood, base flood elevations and flood hazard factors determined
A99	Areas of 100-year flood to be protected by a flood protection system under construction, base flood elevations and flood hazard factors not determined
B	Area between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot
C	Areas outside 500-year flood
D	Areas of undetermined, but possible, flood hazards
V	Areas of 100-year coastal flood with velocity (wave action), base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action), base flood elevations and flood hazard factor determined

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only. It does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.

INITIAL IDENTIFICATION **AUGUST 23, 1974**

FLOOD HAZARD BOUNDARY MAP REVISIONS **JULY 9, 1976**

FLOOD INSURANCE RATE MAP EFFECTIVE **FEBRUARY 4, 1987**

FLOOD INSURANCE RATE MAP REVISIONS



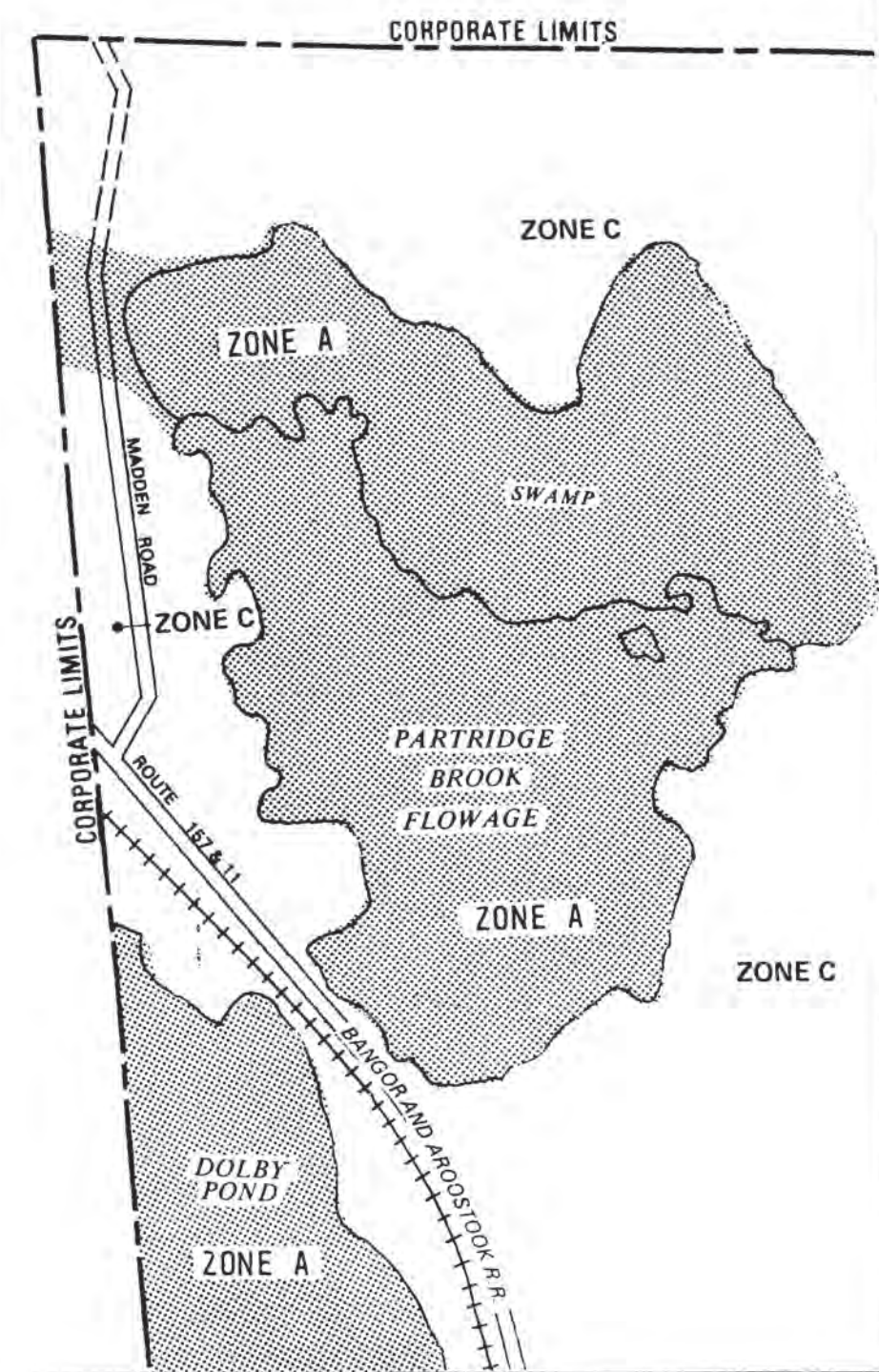
federal emergency management agency

FIRM FLOOD INSURANCE RATE MAP 01-05 MAP INDEX

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

COMMUNITY NUMBER 230163 B

JOINS 03



JOINS 02

federal emergency management agency

TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

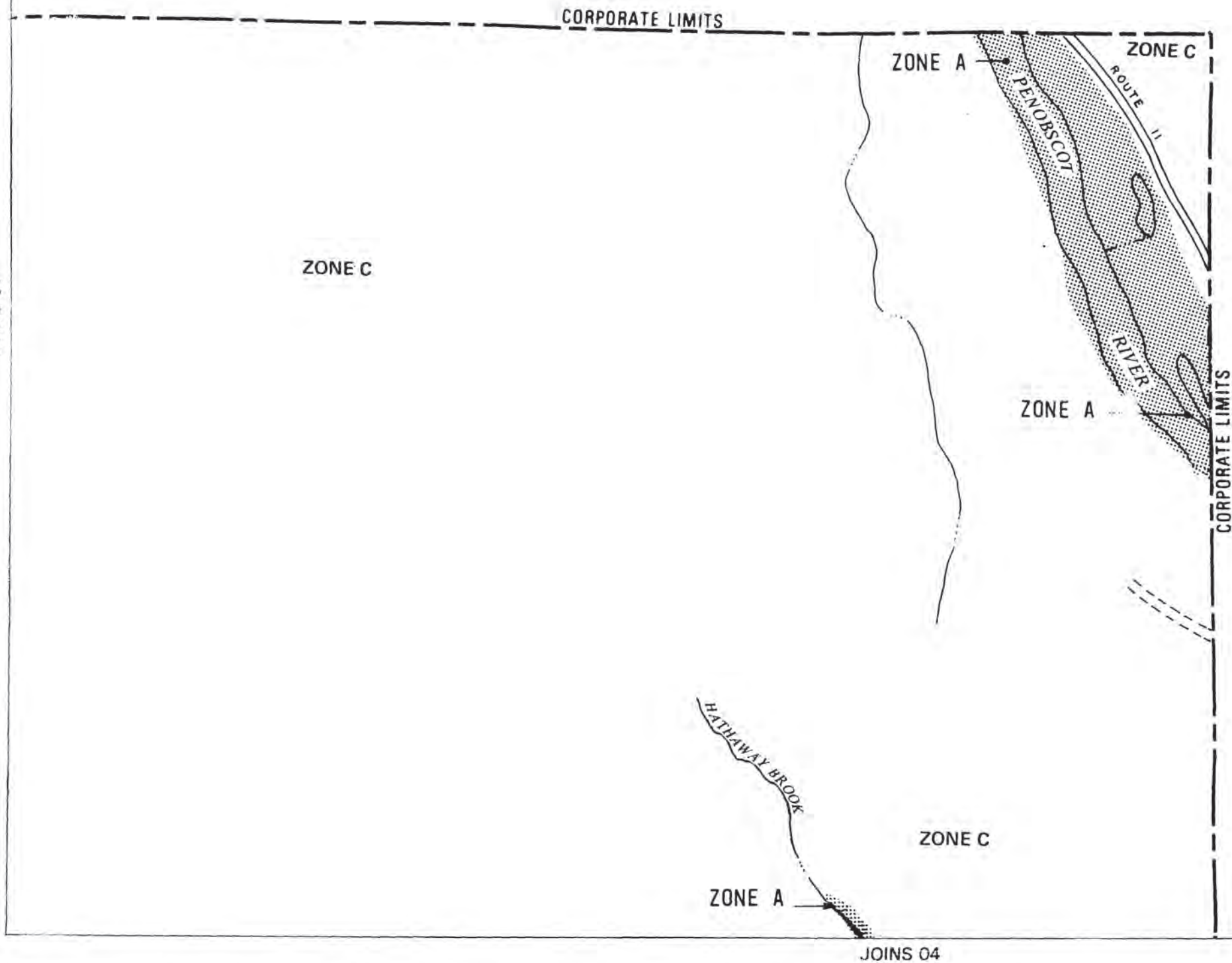
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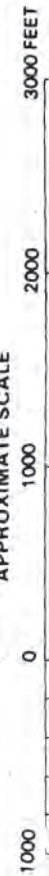
FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

JOINS 01



APPROXIMATE SCALE



federal emergency management agency

TOWN OF EAST MILLINOCKET, ME

PENOBSCOT COUNTY

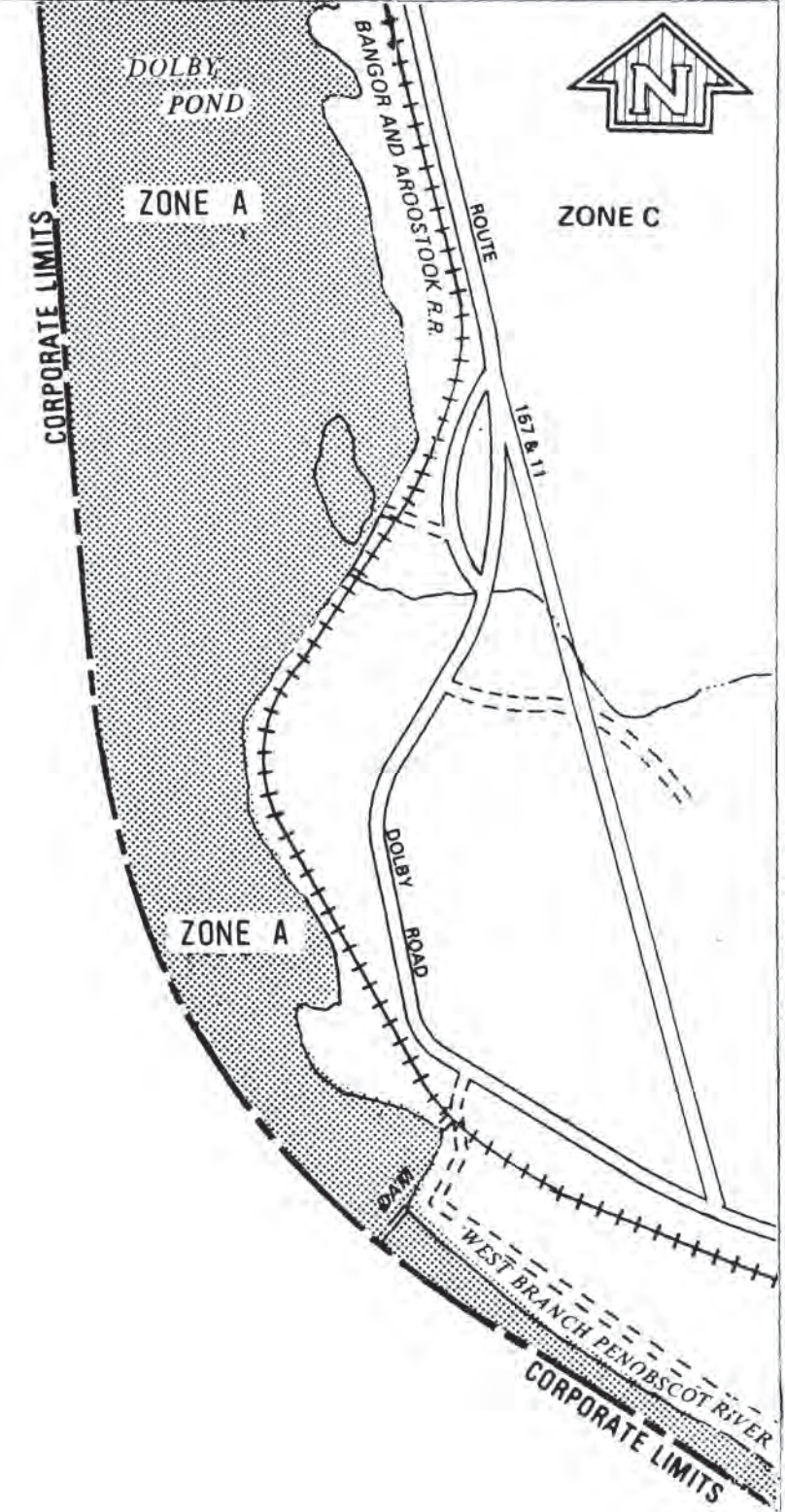
FLOOD INSURANCE RATE MAP

COMMUNITY NUMBER 230163

EFFECTIVE DATE

FEBRUARY 4, 1987

JOINS 01



JOINS 04

federal emergency management agency

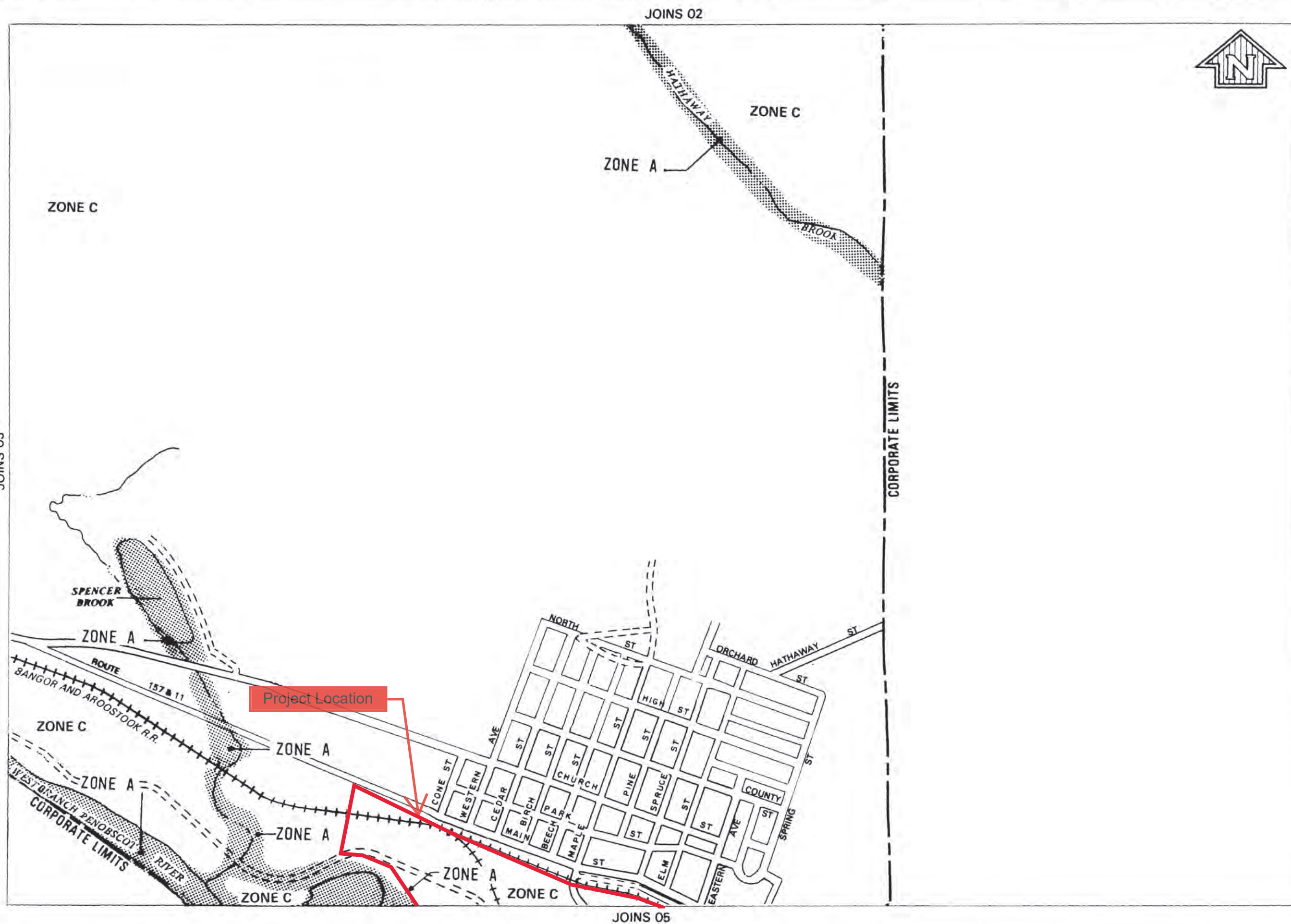
TOWN OF EAST MILLINOCKET, ME
PENOBSCOT COUNTY

APPROXIMATE SCALE
1000 0 1000 2000 3000 FEET

FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

JOINS 03



federal emergency management agency

TOWN OF EAST MILLINOCKET, ME

PENOBSCOT COUNTY

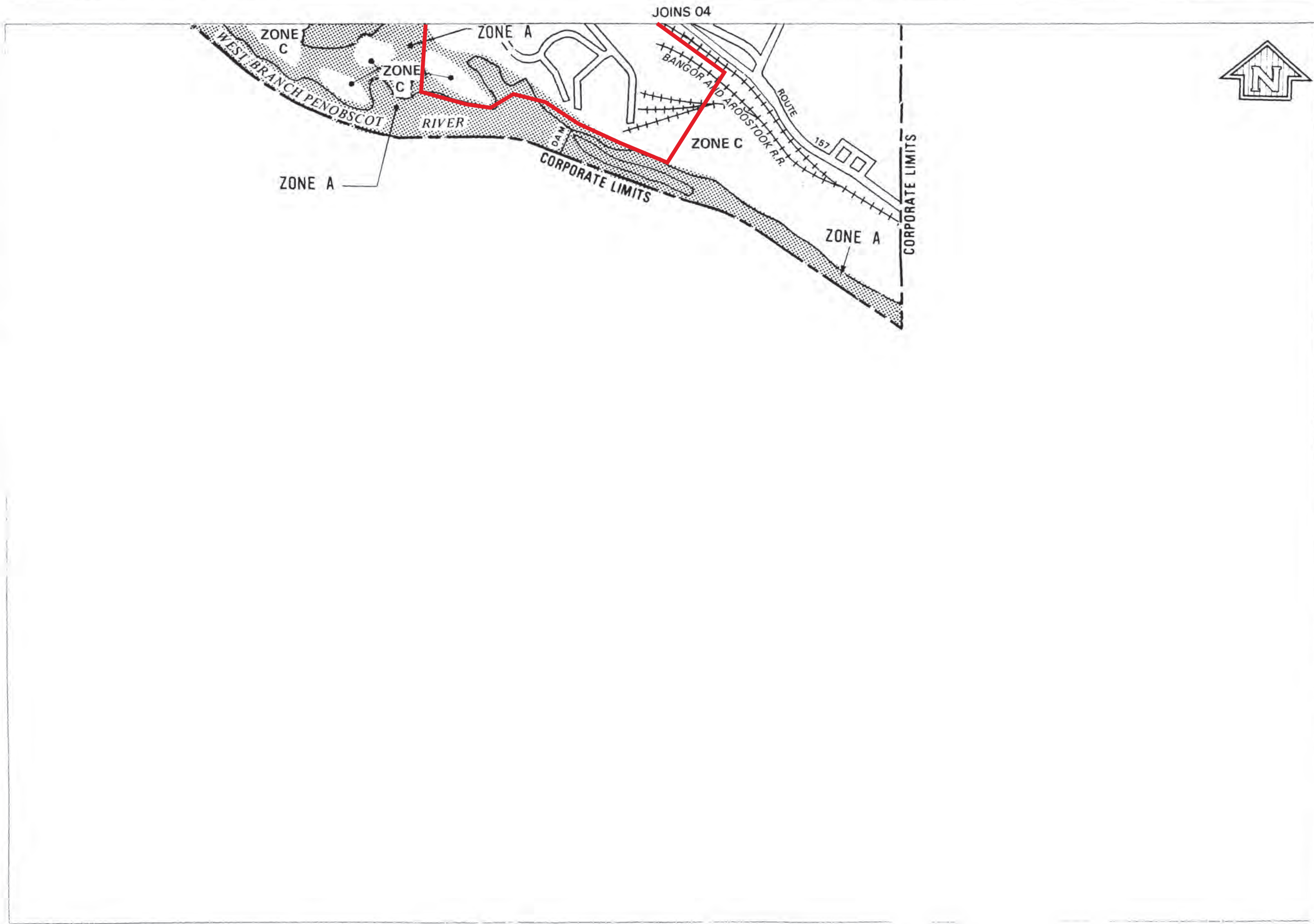
FLOOD INSURANCE RATE MAP
COMMUNITY NUMBER 230163

EFFECTIVE DATE
FEBRUARY 4, 1987

APPROXIMATE SCALE

0 1000 2000 3000 FEET

04



federal emergency management agency TOWN OF EAST MILLINOCKET, ME PENOBSCOT COUNTY	APPROXIMATE SCALE 1000 0 1000 2000 3000 FEET	EFFECTIVE DATE FEBRUARY 4, 1987
	FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 230163	

Maine Flood Hazard Map

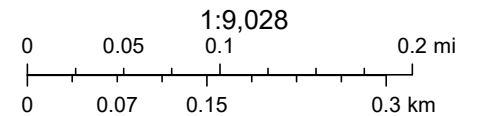


2/20/2024, 2:06:58 PM

Maine Towns

Flood_Zones_Q3

A

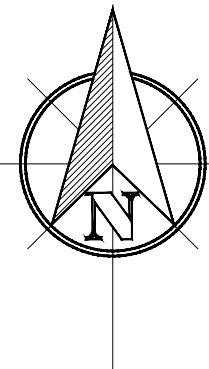
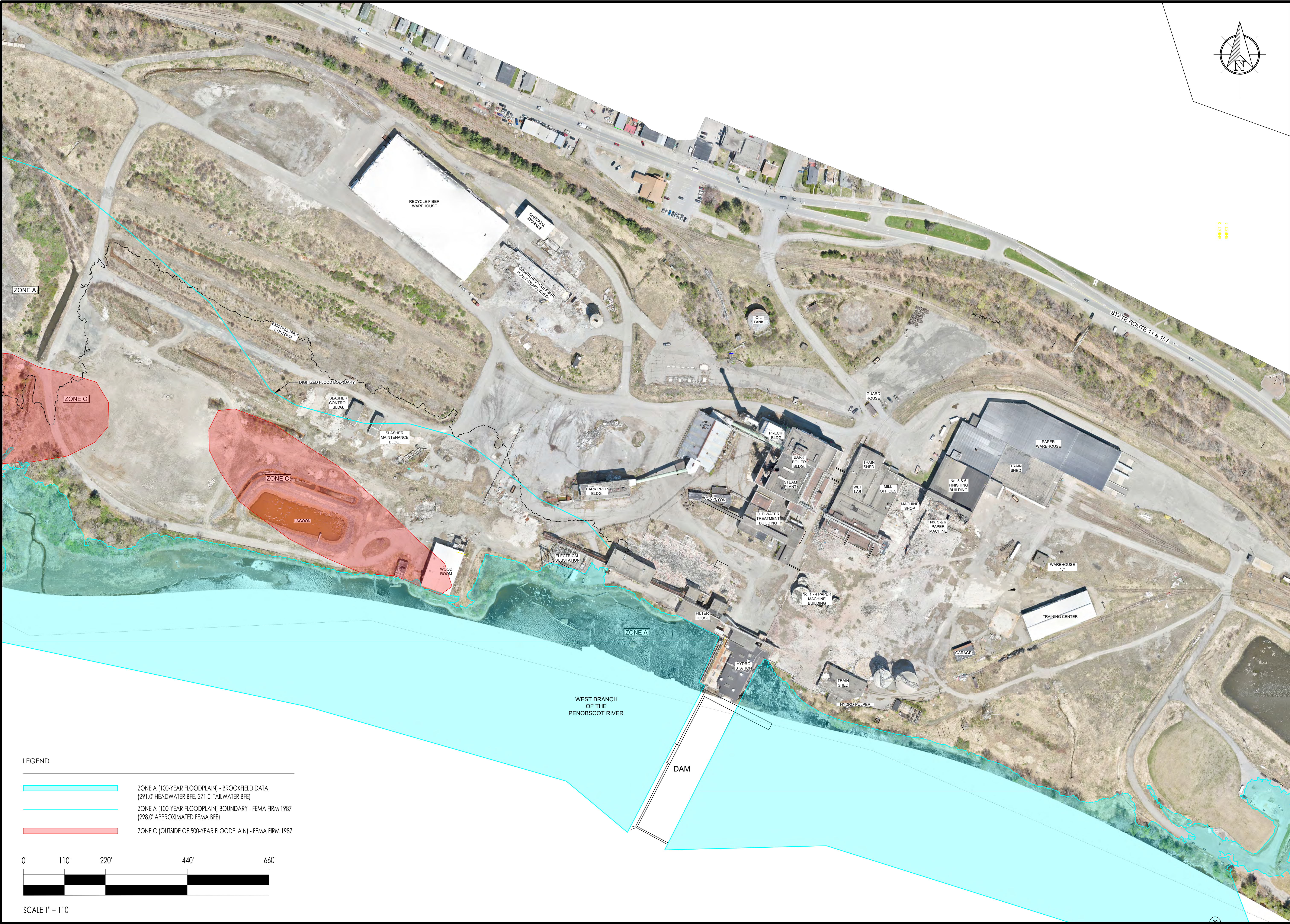


Esri Community Maps Contributors, Province of New Brunswick, © OpenStreetMap, Microsoft, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NRCAN, Parks Canada, Maine Floodplain Program, FEMA,

Attachment 2

Floodplain map incorporating combined floodplain boundary data from:

- The 1987 FIRM;
- MFHP Q3;
- Recent (2024) topography measurements; and
- Brookfield dam relicensing.



SHEET 2
SHEET 1

LEGEND

ZONE A (100-YEAR FLOODPLAIN) - BROOKFIELD DATA
(291.0' HEADWATER BFE, 271.0' TAILWATER BFE)

ZONE A (100-YEAR FLOODPLAIN) BOUNDARY - FEMA FIRM 1987
(298.0' APPROXIMATED FEMA BFE)

ZONE C (OUTSIDE OF 500-YEAR FLOODPLAIN) - FEMA FIRM 1987

0'110'220'440'660'

SCALE 1" = 110'

Engineer	Project Name	Drawing Description	SEAL	Design	Drawn	REV. #	DESCRIPTION	DATE	BY
Stillwater Environmental Engineering, Inc P.O. Box 426 Orono, Maine 04473 207-949-0074 stillwaterenv.com	EAST MILLINOCKET NBRC NEPA 50 MAIN STREET EAST MILLINOCKET, ME 04430	SHEET 1 OF 1 FLOOD PLAIN	Project No. 23001-24-2	JS	MJ	1			
				Date 6/13/2024	Scale 1" = 110'	2			
				Approved JS	Checked PR	3			
						4			
						5			

Attachment 3

Early Public Notice (Step 2 of the 8-Step Decision Making Process), published on May 30, 2024 in the Lincoln News.

PUBLIC NOTICE
TOWN OF EAST MILLINOCKET

Please take notice that the East Millinocket Planning Board will hold a public hearing on the application for a permit for an asphalt plant to be installed and operated on its property located at 155 Main Street, Route 157, East Millinocket, Maine (Tax Plant 004 Map 004 Lot 005). The public hearing will be held on June 6, 2024 at 6pm at the Schenck High School Library, 45 North Street, East Millinocket, Maine. The public is invited to attend to provide comments and documents related to the application or to observe the proceedings. Written comments and documents may also be made part of the record of the proceeding by delivering to the East millinocket Town Office, 53 Main Street, East Millinocket, Maine 04459 by 3 p.m. on June 6, 2024 The application and related documents may be viewed at the Town Office from 8 am to 4pm Monday through Friday or on the Town's website. The Planning Board may act on the application following the Public Hearing.

PUBLIC NOTICE
TOWN OF LINCOLN

Notice is hereby given that the Lincoln Town Council will hold two public hearings on the Fiscal Year 2025 Budget and 5-year Capital Plan.
1st Public Hearing: Tuesday May 28, 2024 at 6:00 p.m. during a Special Council meeting in the Council Chambers for the purpose of hearing oral and written comments regarding the budget and capital plan.
2nd Public Hearing: Monday June 3, 2024 at 6:00 p.m. during a Special Council meeting in the Council Chambers for the purpose of hearing oral and written comments regarding the budget and capital plan.
If you are unable to attend the public hearing, please forward written comments to the Town Clerk, at Town of Lincoln, 29 Main St., Lincoln, Maine 04457 or ann.morrison@lincolmaine.org

SKAGROCK ROAD WORK BID REQUEST
TOWN OF HAYNESVILLE

The Town of Haynesville is now accepting sealed bids for work on Skagrock Road. Work is for 100 yards of 2 inch minus gravel and grading of 0.8 mile of road. Work must be completed by mid October. Contractor will provide their own equipment and must have liability insurance, and workers' compensation or file for an exemption. Mark bids (Skagrock Road). Bids will be accepted until 2:30 pm on June 11, 2024 and the Bids will be opened at the Selectboard meeting June 11 at 6 pm. Bids are to be delivered to the Haynesville town office, 16 Danforth Road, Haynesville, ME 04497. Call 207-448-2239 with any questions. The Selectboard retains the right to accept or reject any and all bids.
The Selectboard.

PUBLIC NOTICE
TOWN OF LINCOLN

Notice is hereby given that the Lincoln Registrar of Voters will sit, register voters and make corrections to the voting list on Tuesday June 4, 2024 from 8:00am-7:00pm, Wednesday June 5, 2024 through Friday June 7, 2024 and Monday June 10, 2024 from 8:00am-5:00 pm as well as on election day while the polls are open from 8am to 8pm according to Title 21A, MRSA, Section 122, Subsection 6A.

Voters must provide proof of identification and residency when registering to vote. VOTERS ARE URGED TO CHECK WITH THE REGISTRAR PRIOR TO ELECTION DAY TO MAKE SURE THEIR NAME AND ADDRESS IS CORRECT AND TO CONFIRM WHAT POLITICAL PARTY THEY ARE ENROLLED IN.

PUBLIC NOTICE
TOWN OF MILLINOCKET

The Town of Millinocket will hold a Public Hearing on Thursday, June 13th, at 5:30pm, at the Charles Sanders Council Chamber, located on the 2nd floor of the Municipal Building, to discuss the acceptance of a Community Enterprise CDBG Grant in an amount of \$100,000. The purpose of the grant is to make façade improvements for commercial properties downtown. Public comments will be solicited at this Hearing and will be submitted as part of the Project Development Phase. Persons wishing to make comments or ask questions about the acceptance of these funds are invited to attend this Public Hearing. Comments may be submitted in writing to: Amber Wheaton, Community Initiatives Director at any time prior to the Public Hearing. TDD/TTY users may call 711. If you are physically unable to access any of the Town's programs or services, please call Amber Wheaton, Community Initiatives Director at 447.4100 so that accommodations can be made.



Town of Millinocket
197 Penobscot Ave.
Millinocket ME 04462-1430
723-7000

LEGAL NOTICE
SAVE A LIFE

Request For Quote for a renovation of the Lincoln Save A Life building. General scope is to replace doors, windows, lights, flooring, ramp, etc. Pre-bid Meeting: 6 Jun 24 @11AM. Bids will be due on 24 Jun 24 @1PM. To request drawings please contact Foresight Engineering at
ted.ocana@fepc.us
or call 207-794-2775.

PUBLIC NOTICE

(Central Maine Highland Fire EMS District No. 1) is applying to the Maine Board of Emergency Medical Services to license CMHFD No. 1) as a (transporting) at the EMT level, permitted to provide care at the Paramedic level on some calls, with a primary service area of (Maxfield, Seboeis, Howland Mattamiscontis, Edinburg, Passadumkeag, Enfield, Lowell, Burlington, Grand Falls, Summit, T3R1, T3ND, OQUINTON, T40MD, T41MD), Maine. There is no change to the way the public will request emergency services; citizens should continue to call 911 for all emergencies. The public is invited to make comment regarding the proposed application. Comments must be received by the Board of Emergency Medical Services within 30 calendar days of the publication of this notice. Comments must be mailed to Maine EMS, 152 State House Station, Augusta, Maine 04333-0152

PUBLIC NOTICE OF INTENT TO FILE
APPLICATION FOR DISPOSAL OF SPECIAL WASTE &
APPLICATION FOR LANDFILL CLOSURE

Please take notice that the Lincoln Mill Environmental Recovery Corporation (Corporation) (29 Main Street, Lincoln, Maine (207)794-3372) and the Town of Lincoln (Town) (29 Main Street, Lincoln, Maine (207)794-3372) are intending to file an Application for Disposal of Special Waste in an [Asbestos Containing Materials (ACM) Consolidation Area] and an Application for Landfill (ACM Consolidation Area) Closure with the Maine Department of Environmental Protection (MEDEP) on or about May 31, 2024 pursuant to the provisions of 38 M.R.S.A. Section 1301 et seq. and 06-096 CMR Chapter 400 et seq.

The Special Waste Application is for the one-time disposal of approximately 24,000 cubic yards of ACM within existing, permitted solid waste disposal areas on the property of the former Lincoln Pulp and Tissue Mill facility (Facility). The proposed consolidation area is currently owned by the Corporation which is a non-profit organization affiliated with the Town. ACM placed within the Consolidation Area will be material removed from the facility. The Closure Application provides the submittals required for final closure of the ACM Consolidation Area following the completion of ACM Consolidation.

According to Department regulations, interested parties must be notified, written comments invited, written comments invited, and if justified, an opportunity for public hearings given. A request for public hearing, or that the Board of Environmental Protection assume jurisdiction over the application, must be received by the MEDEP, in writing, no later than 20-days after the application is accepted by the MEDEP to be complete for processing.

The application and supporting documentation are available for public inspection during normal working hours at the Town of Lincoln Code Enforcement Office located at 29 Main Street in Lincoln, Maine.

Written public comments on the Applications may be sent to:

Victoria Eleftheriou
Deputy Director
Maine Department of Environmental Protection Bureau of Remediation and Waste Management
17 State House Station
Augusta, ME 04333-0017
Victoria.h.eleftheriou@maine.gov

Early Notice and Public Review of a Proposed
Activity in a Floodplain – Town of East Millinocket, Maine

To: All interested Agencies, Groups, and Individuals:

The Town of East Millinocket proposes to use funds granted by the Northern Border Regional Commission (NBRC) through their Catalyst Program for infrastructure improvements to the former East Millinocket mill site. As required by Executive Order 11988 (Floodplain Management) as amended by Executive Order 13690 (Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input), NBRC will prepare an 8-Step Decision-Making Process review. This document acts as an early public notice to promote public understanding and provide opportunities for public involvement in the decision-making process.

The purpose of the Proposed Action is to generate economic revitalization and new employment in the town of East Millinocket, Maine. The Proposed Action would redevelop the approximately 250-acre parcel East Millinocket mill site as part of a larger redevelopment initiative of the former Great Northern Paper mill. Construction would occur at 50 Main Street in East Millinocket, Maine (45°37'30.5" N 68°34'29.6" W). The proposed project would extend upon a preliminary engineering evaluation and implement stormwater management upgrades. These stormwater upgrades would include the repair/replacement of failing culverts, storm drain and catch basin installation in high-priority areas, drainage ditch maintenance, minor detention pond maintenance, and site grading to eliminate areas of ponding. The project would improve transportation within and around the mill site by re-paving up to 42,000 square yards of existing roadways and installing guardrails adjacent to the river. Additionally, the project would improve security by installing perimeter fences, security barriers, and security cameras.

NBRC has determined that portions of the proposed project are potentially located in the Penobscot River's 100-year floodplain. For the Proposed Action, the federal flood risk management standard (FFRMS) floodplain was defined using the 0.2-percent-annual-chance Flood Approach (0.2 PFA). Using the Town of East Millinocket FIRM, NBRC has determined that the project's footprint is directly adjacent to the 100-year floodplain of the West Branch of the Penobscot River. Thus, NBRC has determined that the project's footprint exists within an FFRMS floodplain and warrants an analysis under the 8-Step Decision-Making Process.

Additional information on this proposed project can be reviewed weekdays from 7 AM to 3 PM at the East Millinocket Town Office, 53 Main Street. Interested persons may also contact the Selectmen's Office at 207-746-3376 for additional information. The Town is now evaluating potential alternatives, the potential impact of the proposed project, and potential mitigation to minimize flood hazard impacts.

This notice provides people who may be affected by the Proposed Action and those who have an interest in the protection of the natural environment with an opportunity to express their concerns and provide information. Commenters are encouraged to offer alternative sites, alternative methods to serve the same project purpose, and methods to minimize and mitigate impacts. Comments should be submitted via email to nepa@nbc.gov. NBRC is accepting comments on this notice from May 30, 2024, through the end of the day June 13, 2024.

Date of Publication: May 30, 2024

Attachment 4

Final Public Notice and Public Review (Step 7 of the 8-Step Decision Making Process), published on June 27, 2024 in the Lincoln (Maine) News.

Final Notice and Public Review of a Proposed Activity in a Floodplain – East Millinocket, Maine

To: All interested Agencies, Groups, and Individuals:

The Northern Border Regional Commission (NBRC) has prepared an 8-Step Decision-Making Process review in compliance with Executive Order 11988 (Floodplain Management), as amended by Executive Order 13690 (Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input). The Town of East Millinocket proposes to use funds granted by NBRC through their Catalyst Program for infrastructure improvements to the former mill site at 50 Main Street in East Millinocket, Maine (45°37'30.5" N 68°34'29.6" W).

The purpose of the proposed action is to stimulate economic revitalization and create new employment in East Millinocket. The project involves upgrading stormwater management systems, including repairing or replacing culverts, installing storm drains and catch basins, maintaining drainage ditches and detention ponds, and site grading. It also includes repaving 42,000 square yards of roadways, installing guardrails by the river, and enhancing security with perimeter fences, barriers, and cameras. This is part of a larger initiative to redevelop the 250-acre former Great Northern Paper mill site.

The Town and NBRC have considered the following alternatives in selecting the Proposed Action: No Action Alternative: would result in no federal funds supporting the Infrastructure Improvements at the mill redevelopment site. The no action alternative would not fulfill the need for enhanced safety, security, and access for businesses locating within the repurposed site. Alternative sites and designs: would not be practicable given that the infrastructure to be improved already exists in place. Nature-based alternatives: EO 13690 requires federal agencies to consider nature-based approaches when developing project alternatives. Nature-based approaches were considered as alternatives to the Proposed Action. However, no viable nature-based alternatives were identified that would still meet the needs of the Proposed Action.

Through the 8-Step Decision-Making Process, NBRC identified the potential for the Proposed Action to impact property, lives, and natural values. The applicant has identified the following to minimize potential impacts:

Property impacts: As a means to minimize the property/monetary value that may be lost as the result of a flooding event, the applicant would maintain participation in the National Flood Insurance Program and continue to enforce the Town's floodplain management ordinance, which serves to mitigate flood risks to properties. The proposed action includes improving the property's existing stormwater management system by repairing/replacing under-performing storm drains, maintaining ditch conveyances, and maintaining and potentially resizing the existing detention pond. These improvements would mitigate erosion and sedimentation related to runoff from existing impervious areas. Additionally, resurfacing existing travelways would reduce the potential for washouts and transport of loose materials in the event of flooding.

Impacts to lives: Improving site flood safety will be the primary means to mitigate any impacts to lives. Enhanced stormwater management resulting from the Proposed Action would ensure safer conditions by effectively controlling and channeling stormwater, thus preventing hazardous hydrologic conditions by reducing the likelihood of sudden flooding during extreme weather events. Proposed travelway improvements would increase accessibility for emergency response and/or evacuation procedures during emergency flood situations.

Natural value impacts: The Proposed Action will take place within an existing developed area, with no addition of impervious surface in and around the floodplain. The Town will ensure that the Proposed Action conforms to all state and local floodplain protection standards and will implement measures that mimic components of the natural floodplain, specifically stormwater management enhancements, erosion and sedimentation control, flow rate and runoff reduction, mitigation of non-point source pollution, and storage of excess stormwater.

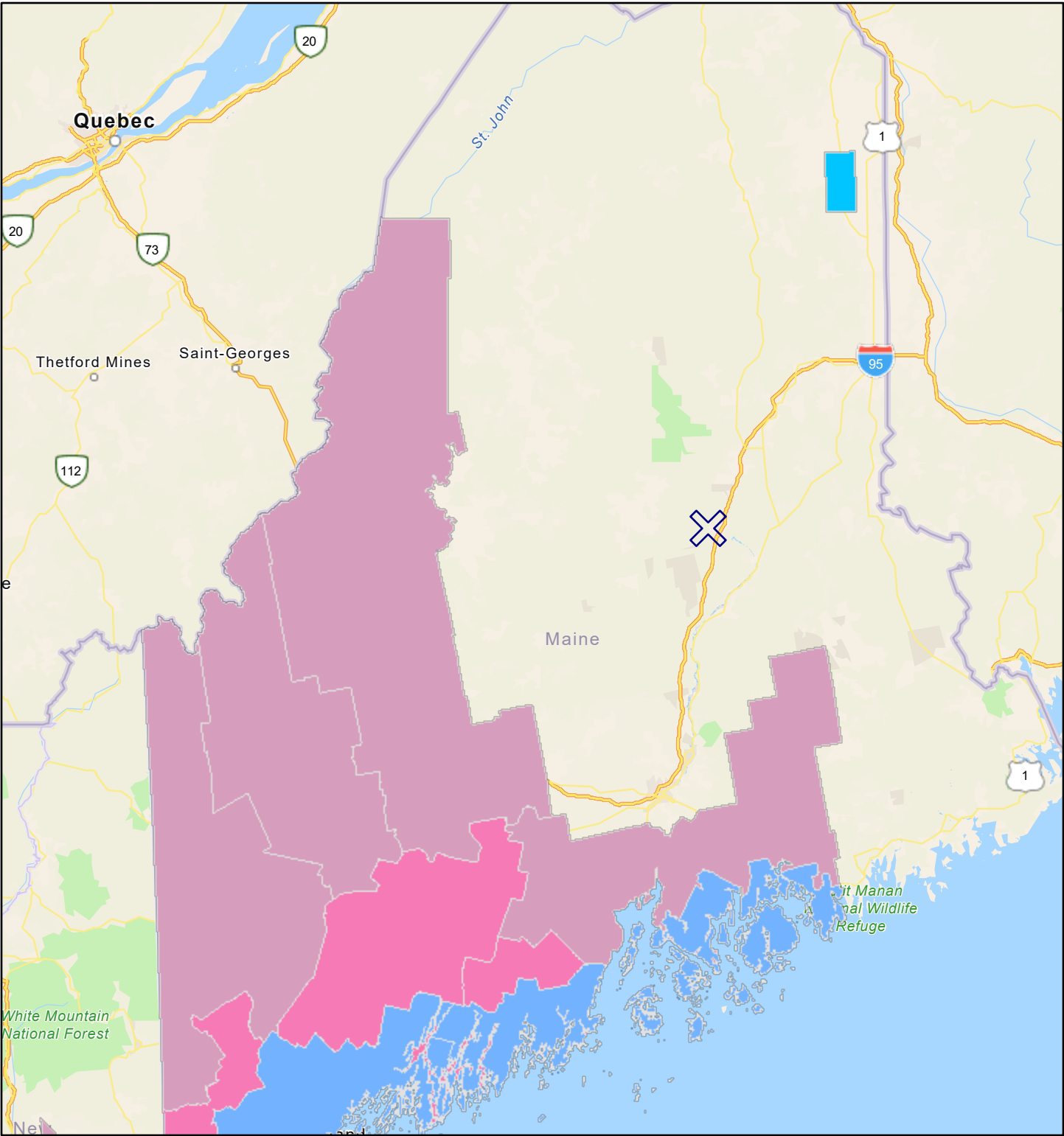
It is NBRC's determination that due to 1) the identification of sufficient mitigation, 2) the lack of practicable alternatives, and 3) the importance of the Proposed Action to address the needs of the East Millinocket community, the importance of the Proposed Action in the floodplain outweighs the requirements of EO 11988 and EO 13690 to avoid direct or indirect support of floodplain development and reduce the risk of flood loss.

Files documenting compliance with steps 1 through 6 of EO 11988 (as amended by EO 13690) are available for public inspection upon request. Please email a request to nepa@nbr.gov. The 8-Step Decision-Making Process materials will be provided in electronic format unless a hard copy is specifically requested.

This notice provides people who may be affected by activities in the floodplain and those who have an interest in the protection of the natural environment with an opportunity to express their concerns and provide information. NBRC is accepting comments on this notice for seven (7) days from June 28, 2024, through the end of the day of July 4, 2024.




Date of Publication: June 27, 2024






East Millinocket Non-Attainment

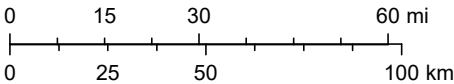


May 6, 2025

1:2,750,000

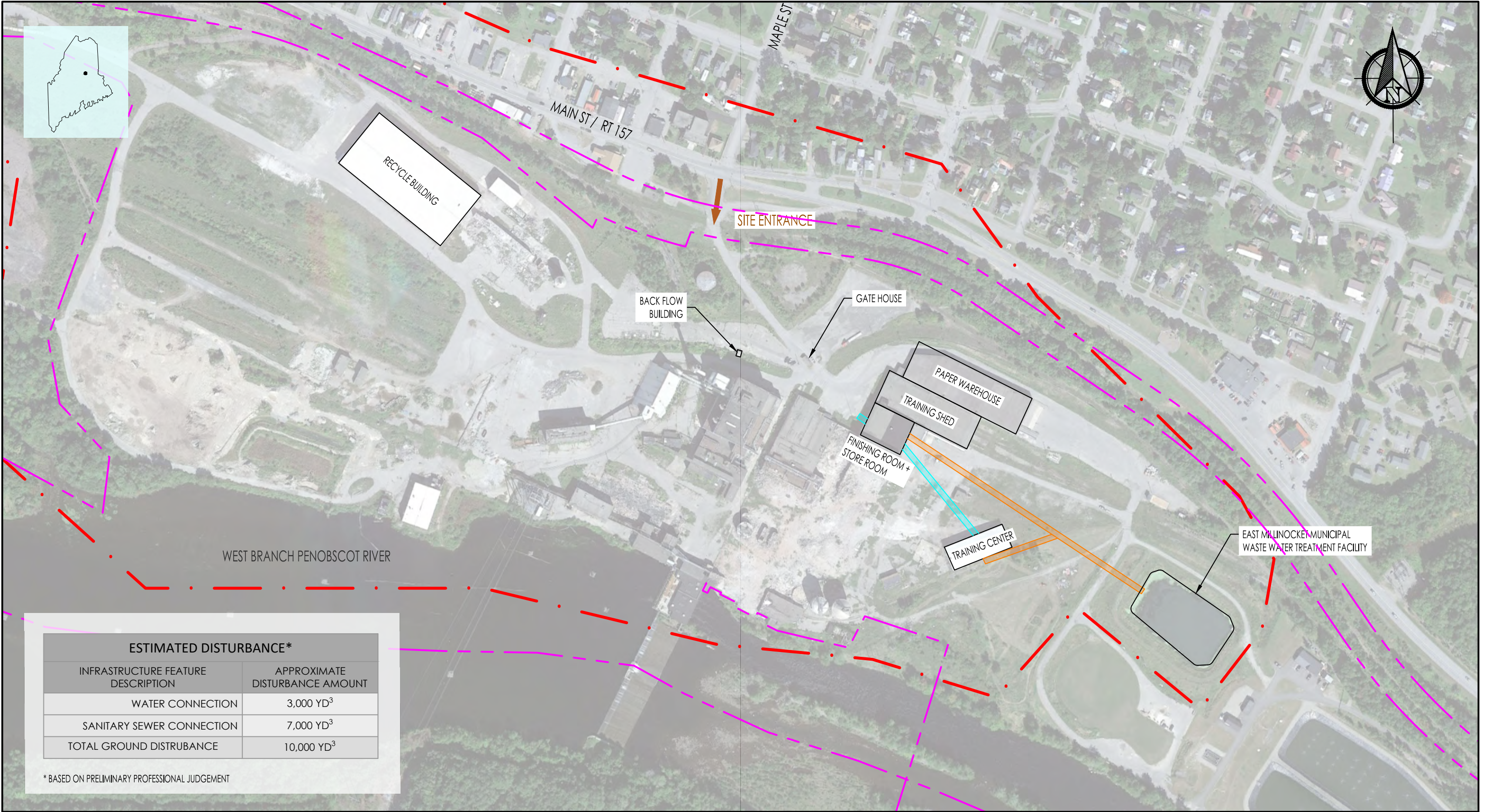
-  East Millinocket Mill Redevelopment
-  Ozone 8-hr (1997 standard) Maintenance (NAAQS revoked)
-  Maintenance (NAAQS revoked)

-  PM10 (1987 standard) Nonattainment (NAAQS revoked)
-  Maintenance (NAAQS revoked)
-  Ozone 1-hr (1979 standard-revoked) Maintenance (NAAQS revoked)
-  Maintenance (NAAQS revoked)
-  Nonattainment (NAAQS revoked)




Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, U.S. EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS)





ESTIMATED DISTURBANCE*	
INFRASTRUCTURE FEATURE DESCRIPTION	APPROXIMATE DISTURBANCE AMOUNT
WATER CONNECTION	3,000 YD ³
SANITARY SEWER CONNECTION	7,000 YD ³
TOTAL GROUND DISTURBANCE	10,000 YD ³

* BASED ON PRELIMINARY PROFESSIONAL JUDGEMENT



Stillwater Environmental Engineering, Inc

P.O. Box 426 Orono, Maine 04473

207-949-0074

www.stillwaterenv.com

Date 5/1/25	Project Name EAST MILLINOCKET MILL SITE REDEVELOPMENT	SOURCE OF DATA Image courtesy of Google Earth, Sept. 2022. Created by SEE, MAY 2025
Project No. 23001-24-1	Map Description NUD FY24 PROJECT ACTIVITIES AREA OF POTENTIAL EFFECT (APE)	

Key

- AREA OF POTENTIAL EFFECT
- - - PROPERTY BOUNDARY
- WATER (POTABLE)
- SEWER (SANITARY)

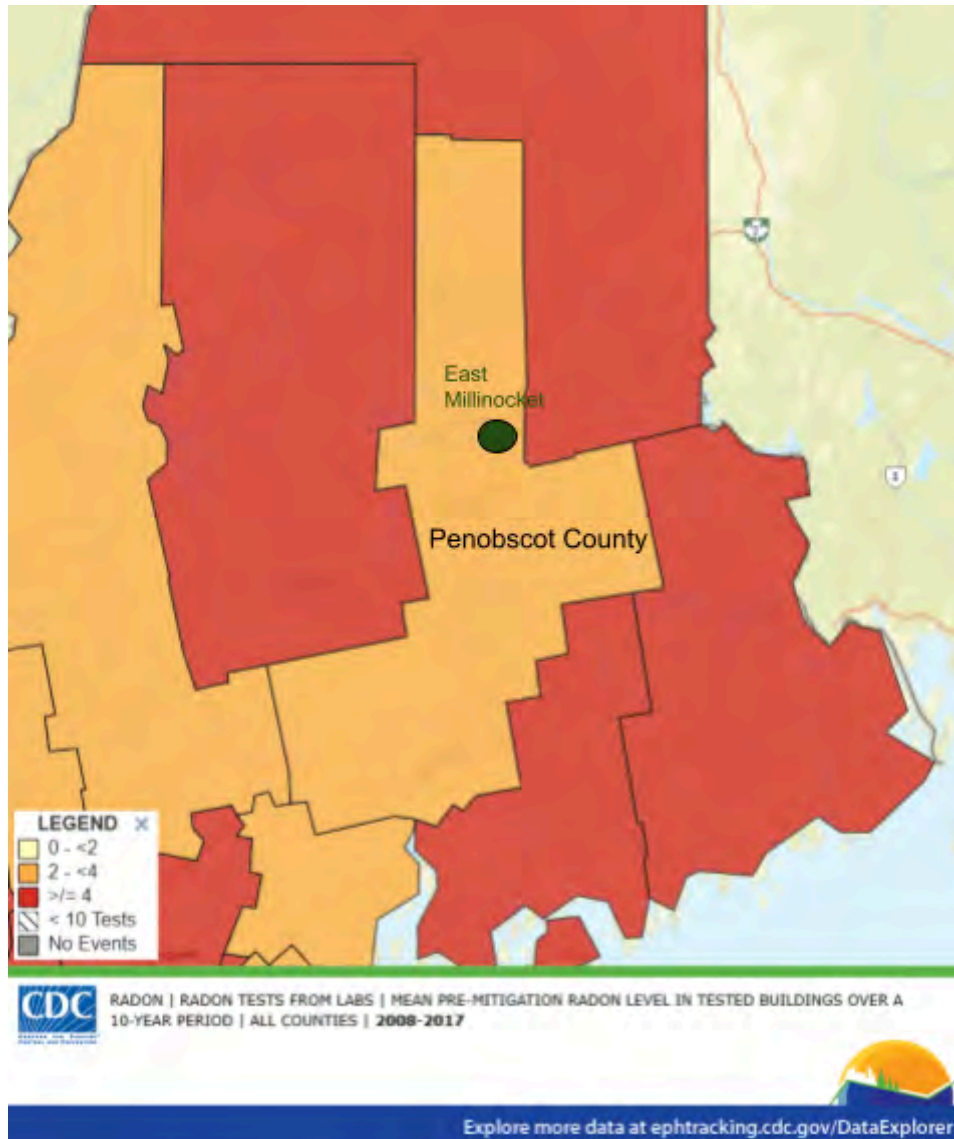
0' 150' 300' 600' 900'

SCALE 1"=300'



Radon

Mean Pre-mitigation Radon Level in Tested Buildings over a 10-year Period



Accessed From: <https://ephtracking.cdc.gov/DataExplorer>. Accessed on 05/05/2025

**ENVIRONMENTAL MEDIA MANAGEMENT PLAN
GREAT NORTHERN PAPER
EAST MILLINOCKET, MAINE
#REMO2048**

Prepared for:
Eastern Maine Development Corporation
Bangor, Maine

and

The Town of East Millinocket, Maine

Prepared By:
Campbell Environmental Group
173 Gray Road, Falmouth, Maine 04105

Revision 2

September 24, 2024

CAMPBELL
ENVIRONMENTAL GROUP

September 24, 2024

Ms. Jennifer King
Eastern Maine Development Corporation
40 Harlow Street
Bangor, Maine 04401

Mr. Michael Michaud
Town of East Millinocket
53 Main Street
East Millinocket, Maine 04430

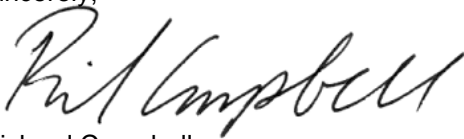
**Re: Environmental Media Management Plan
Great Northern Paper
50 Main Street, East Millinocket, Maine**

Dear Jennifer and Michael,

Campbell Environmental Group, Inc., (CEG) has prepared this Environmental Management Plan (EMMP) at your request to complete services necessary to adhere to Maine Department of Environmental Protection (MEDEP) Voluntary Response Action Program (VRAP) requirements. These requirements were documented in a letter that referenced, *Great Northern Paper (GNP) Site, 50 Main Street, East Millinocket, Maine No Action Assurance Letter - Voluntary Response Action Program*, dated February 14, 2023 from Mr. Ted Wolfertz, of the MEDEP, to Michael, Michaud, East Millinocket Town Select Chair.

If you have any questions or comments, please do not hesitate to contact us. We appreciate the opportunity to work with you on this project.

Sincerely,



Richard Campbell
Maine Licensed Geologist
President

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1.0 INTRODUCTION

This Environmental Media Management Plan (EMMP) has been prepared for Eastern Maine Development Corporation as the United States Environmental Protection Agency (USEPA or EPA) Brownfields Grant recipient, and the Town of East Millinocket as the current owner of the Great Northern Paper property located at 50 Main Street in East Millinocket, Maine (Site) (**Figure 1**). This EMMP is intended to fulfill anticipated requirements outlined in a Maine Department of Environmental Protection (MEDEP) No Action Assurance Letter, issued by the Voluntary Response Action Program (VRAP) and dated February 14, 2023.

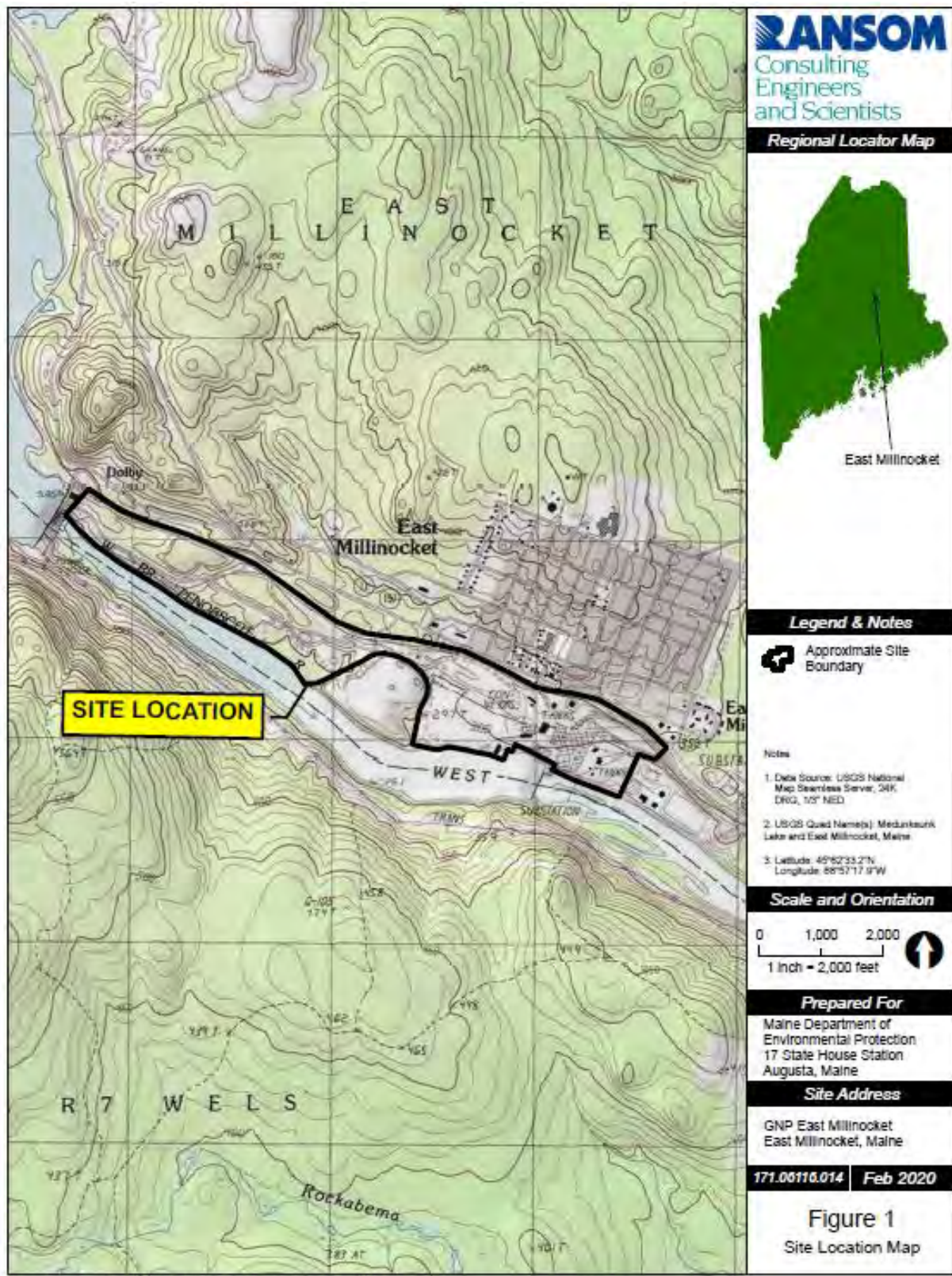
This EMMP is to be used by future users of the Site to properly conduct any actions that may disturb soil or groundwater within the Site. These activities could include but are not limited to construction and maintenance that involves subsurface disturbance, excavation of soil, or groundwater extraction. This EMMP describes actions that should be followed when any soil disturbance activities are conducted. In addition, activities associated with building remodeling or demolition that may encounter hazardous building materials such as asbestos containing materials (ACM), lead-based paint (LBP), and universal wastes are also included within this EMMP.

1.1 Background

According to the MEDEP VRAP application prepared by TRC Companies, Inc., and dated November 23, 2022, *“The approximately 215-acre Site, identified by the Town of East Millinocket as Parcel Number 0001-2-00000-010, was developed as the Great Northern Paper Mill (GNP) in 1907, producing paper products as one of the region’s largest employers until its closure in 2014. The Town of East Millinocket acquired the former GNP Site on July 21, 2020.*

During its operation, the GNP mill complex comprised numerous buildings, a wood yard, a storm water retention pond, aboveground oil storage tanks, storage sheds, parking areas, a vehicle maintenance garage, several pulp storage silos, and a wastewater treatment plant. Although the Site is currently vacant, numerous building and structures associated with the former mill operations remain present. A Site Location Map and Site Layout Plan prepared in conjunction with a previous Phase I Environmental Site Assessment (ESA) performed by Ransom Consulting, LLC on behalf of the Town of East Millinocket in February 2020 are included as Figures 1 and 2, respectively (Figures shown below). To assist in the evaluation of the former mill site, previous environmental investigations performed by others have divided the Site into seven “Study Areas,” which are depicted in Figure 2.

The former GNP Site is situated between East Millinocket’s Main Street (State Route 157) and the West Branch of the Penobscot River. The Site is located in a residential/commercial and undeveloped area of north-central Maine.





The proposed redevelopment of the former GNP Site will be for Municipality of East Millinocket, light industrial and commercial uses to be built in phases. No residential uses are proposed.

The Site buildings, while currently vacant, were historically serviced by municipal water. The surrounding properties are serviced by the East Millinocket Water Works. Currently the Town's water sources are three gravel-packed wells located off Hathaway Road, the closest of which is located over 1.25 miles northeast of the Site.

Based on TRC's review of the Maine Geological Survey's Private Well Database, there are no private wells located within 2,500 feet of the Site. According to the Maine Public Water Resource Information System KMZ files (downloaded for Google Earth on November 23, 2022), there are no source water protection areas or public drinking water supply wells located within 2,500-feet of the Site."

1.2 Previous Site Work

A significant number of environmental reports and documents have been generated for the Site, some of which are listed below. These documents are not included in this EMMP, but are available at the MEDEP file room or through the MEDEP DocuWare Online Records Portal.

1. Administrative Consent Agreement and Enforcement Order, Hazardous Waste Activities, Great Northern Paper Company, a division of Great Northern Nekoosa Corporation (MEDEP, August 22, 1988);
2. Closure Report for the Drum Storage Facility at East Millinocket Mill, Great Northern Paper (Sevee & Maher Engineers, Inc., December 1989);
3. Review Comments and Conditional Approval for the PCB Remediation Project, East Millinocket Mill (MEDEP, June 14, 1989);
4. Report of PCB Cleanup Activities and Groundwater Monitoring, East Millinocket Mill (Stone and Webster Engineering Corporation, March 1991);
5. Consent Agreement and Final Order, Great Northern Nekoosa Corporation, EPA Docket No. TSCA-I-87-1041 (United States Environmental Protection Agency [USEPA], September 27, 1991);
6. Environmental Audit of the Georgia-Pacific Property, Millinocket, Maine (Sirrinc Environmental Consultants, December 1991);
7. Phase I ESA, Great Northern Paper, Inc. Mill Properties (S.W. Cole Engineering, Inc., January 22, 2001);
8. Geology Report for the Mini Site Inspection of the Great Northern Paper Mill #2 (MEDEP, September 27, 2001);
9. Final Site Inspection Report for Great Northern Paper Mill #2 (MEDEP, July 18, 2002);
10. VRAP, Great Northern Paper East Millinocket Mill, No Action Assurance Letter – Certificate of Completion (MEDEP, April 24, 2003);
11. Phase I ESA, Katahdin Paper Mill – East (S.W. Cole Engineering, Inc., August 26, 2011);
12. Phase I ESA, Conceptual Site Model, and Data Gap Analysis, Great Northern Paper #2 (TRC, September 2014);
13. Data Review of the No. 5 Paper Machine Site at the East Millinocket Operations of Great Northern Paper Company (Earthcon, August 2015);

14. PCB Assessment and Remediation at the East Millinocket Site Memo (Tetra Tech, June 6, 2018);
15. Phase I ESA, Great Northern Paper – East Millinocket Mill (Ransom Consulting, Inc., June 12, 2019);
16. Preliminary Remediation Cost Estimate – Great Northern Paper Mill (Ransom Consulting Inc., September 17, 2019);
17. Phase I ESA, Great Northern Paper – East Millinocket Mill (Ransom Consulting, LLC, February 13, 2020);
18. Hazardous Substances Inventory & Disposal Estimating, Steam Plant and Boiler Buildings, Great Northern Paper Mill (Ransom Consulting, LLC, April 10, 2020);
19. Needs Assessment & Preliminary Scope of Work, Phase II ESA, Priority Development Areas, Former GNP East Millinocket Mill (Ransom Consulting, LLC, May 28, 2020);
20. Annual Groundwater Monitoring Report, Former Great Northern Paper Company, East Millinocket Operations (Tetra Tech, December 2020);
21. Target Brownfields Assessment, Great Northern Paper Mill – Study Area 5 (KGSNE JV, LLC, April 13, 2021);
22. Target Brownfields Assessment, Great Northern Paper Mill – Study Area 2 North (KGSNE JV, LLC, February 16, 2022);
23. Fessenden Geo-Technical, LLC, Phase II Site Investigation Results E-railZ Lease Area, Mill #2 Property, East Millinocket ME, dated September 6, 2022;
24. Great Northern Paper (GNP) Site, 50 Main Street, East Millinocket, Maine, No Action Assurance Letter - Voluntary Response Action Program (MEDEP, February 14, 2023); and
25. Targeted Brownfields Assessment Report, Great Northern Paper Mill – Study Areas 3, 6, and 7 East Millinocket, ME, (KGSNE JV, LLC, November 27, 2023)

According to the Targeted Brownfields Assessment (TBA) Report, titled Great Northern Paper Mill-Study Area 5 East Millinocket, Maine and prepared by KGSNE JV, LLC (KGSNE) dated, April 13, 2021, “*Prior environmental investigations conducted at the former mill site have identified numerous potential environmental concerns. To address some of these concerns and prioritize investigation and potential remedial action, prior investigators divided the former mill site into “Study Areas” as described below:*

- **Study Area 1 – Western Mill Area:** *Located in the south-central portion of the mill site and includes the biomass and petroleum boilers, the precipitator, wastewater treatment, electrical maintenance, the fire safety building, and a biomass storage structure. The former Grinder Room has been largely demolished.*
- **Study Area 2 – No. 2 Train Shed and Shipping Area:** *Located in the northeastern portion of the former mill, this area includes the Nos. 5 and 6 Finishing Rooms, the No. 2 Train Shed, the Paper Warehouse, the Former Drum Storage Area, and the Former Hazardous Waste Storage Area.*
- **Study Area 3 – Maintenance Area:** *Located east of Study Area 1 and along the West Branch of the Penobscot River, this area includes the former Paint Shop, a vehicle maintenance garage, a training center, a warehouse, a former power substation, and a former salvage area. Demolished infrastructure in this area includes a former vehicle maintenance garage.*
- **Study Area 4 – Fuel Storage Area:** *Located in the northern central portion of the former mill site and includes a 750,000-gallon fuel oil aboveground storage tank (AST) and containment features, a heater house, fuel unloading facilities, a hydrant house, the fuel pump house, a security building, a concrete retention pond, and a 5,000-gallon overflow AST. This AST reportedly decants water from*

the No. 6 fuel oil, which is then pumped to the concrete pond and drains to the wastewater treatment plant located east of the mill site. The area formerly contained a 1.7-million-gallon fuel oil AST and associated appurtenances, but these structures have been demolished.

- **Study Area 5 – Recycle Fiber Warehouse Area:** *Located in the northwestern portion of the former mill, this area includes the Recycle Fiber Warehouse, the Chemical Storage Plant, and the Switch House. Now-demolished structures include the Recycle Fiber Plant, and the Flotation Cell Building Extension. The area located to the west of the Recycle Fiber Warehouse was used as a temporary asphalt batch plant, which is no longer present and has been removed.*
- **Study Area 6 – Wood Lot Area:** *Located south of Study Area 5 and along the West Branch of the Penobscot River, contains the slasher control building, the slasher maintenance building, the bark dump building, the wood room, the bark preparation building, and the former wood storage lot. Demolished features formerly located in this study area include the Chemi-Groundwood building, the sorter building, the wood hopper, the bark classifier, the transfer house, and associated conveyor systems.*
- **Study Area 7 – Western Property:** *A large area located west of the former bark pile and Study Areas 5 and 6. The area contains a scale house, a guard shack, wood laydown areas, a sluice dump, and a former burn area.*

The mill site has been the setting for numerous releases of petroleum and/or hazardous materials throughout its operational history. Most of these releases and the investigation and remedial actions associated with them occurred in Study Areas 1, 2, 3, and 4.”

1.3 Key Site Assessments

1.3.1 Stone & Webster Engineering Corporation, Report of PCB Cleanup Activities and Groundwater Monitoring, dated March 1991

Chemi-Groundwood Site

According to the Stone & Webster report dated March 29, 1991, “On August 17, 1970, a transformer located in an exterior alcove on the north side of the white liquor building failed due to a corrosion-related coolant loss of approximately 100 gallons. At the time of the failure, the transformer was energized and carried a light electrical load; it serviced areas of the mill outside the Chemi-Groundwood plant.

The transformer was removed and disposed of in accordance with applicable EPA and MEDEP requirements in December 1981. From a total capacity of 920 gallons, only about 30 gallons of fluid remained in the unit at the time it was removed. The fluid was identified from Great Northern Nekoosa (GNN) (the owner at that time) records as Askarel, a mixture of polychlorinated biphenyls (PCBs) congeners and chlorobenzene solvents.

During the period April 1986 through December 1987, a subsurface investigation that included 48 rotary soil borings and eight monitoring wells was conducted at the Chemi-Groundwood site to determine the extent of PCB contamination.”

No. 6 Paper Machine Site

"The spill at the No. 6 Paper Machine site occurred on January 3, 1978, when a spare Allis-Chalmers 500 kVa transformer, stored outside the southeast corner of the No. 6 Paper Machine room, was accidentally damaged by heavy equipment plowing snow. The impact broke off a drain valve at the bottom of the transformer, releasing some of the cooling fluid. Based upon a review of records, the fluid was identified to be Askarel, consisting of a mixture of PCB congeners and chlorobenzene solvents. GNN's best estimate of the spill volume was 600 gallons.

The spilled fluid was contained by construction of an earth dike, and sand was spread over the spill area to absorb free Askarel. Within 24 hours, the spread sand was collected and stored in barrels. The dike was left in place until the following spring to contain snowmelt. Additional cleanup efforts were completed in the springtime.

In mid-June 1985, excavation in this portion of the mill yard was started in connection with modernization of No. 5 and 6 Paper Machines. On August 16, 1985, an odor characteristic of Askarel was noticed in an excavation for the removal of old fire-line piping. Testing of soils within the excavation showed the presence of polychlorinated biphenyls (PCBs). Follow-up investigations to identify the extent of the contamination were begun immediately.

During the period September 1985 to November 1987, a subsurface investigation that included 75 rotary soil borings and eight monitoring wells was conducted at the site to determine the extent of PCB contamination."

No. 5 Paper Machine Site

"The spill at the No. 5 Paper Machine site occurred on May 14, 1981. As a result of an electrical failure, the lid of a transformer located in the courtyard at the northwest corner of the No. 5 Paper Machine room lifted on one side, splashing transformer fluid against the building and onto the ground. Based upon a review of records, the fluid was identified to be Askarel, consisting of a mixture of PCB congeners and chlorobenzene solvents. GNN's estimate of the spill volume based upon discussion with workers who removed the transformer was 150 gallons.

Two periods of activity preceded final cleanup at this site. During the period August 28, 1985 through December 1985, a soil sampling program was initiated and a considerable amount of contaminated soil was removed.

During the period June 1987 through January 1988, 14 additional borings were drilled and six monitoring wells were installed to gather more data needed to devise additional cleanup plans. In August 1987, surface wipe samples were taken on the north side of the No. 5 Paper Machine building to determine the extent of PCB surface contamination."

Groundwater

"As a part of the site investigations, 22 monitoring wells were installed near the three spill sites during the summer and fall of 1988. These wells were supplemented by 22 additional wells installed throughout the mill site in early summer 1989. The initial 22 wells were sampled on a quarterly basis, from winter 1988

through December, 1989. Water levels were monitored in all wells from installation through August 1990. Samples were analyzed for PCB and chlorobenzene."

1.3.2 EPA Memorandum of Consent Agreement, November 21, 1991

Per the EPA Memorandum of Consent Agreement, it is required that both EPA and MEDEP are notified of proposed excavation activities in areas identified as containing PCBs.

1.3.3 Earthcon, Data Review, dated August 2015

According to the Data Review of the No.5 Paper Machine Site at the East Millinocket Operations of Great Northern Paper Company East Millinocket, Maine, dated August 26, 2015 prepared by Earthcon, *"The spill at the No. 5 Paper Machine Site occurred on May 14, 1981 as the result of an electrical failure..... There was no soil clean-up performed at that time (Stone and Webster, 1988a: Data Package for No. 5 Paper Machine. Stone and Webster Engineering Corporation. April 6, 1988).*

On August 28, 1985, as a result of the discovery of PCB contamination near the southeast corner of the No. 6 Paper Machine building, soil samples were collected from excavations for pier footings near the location of transformer T-122, to determine whether PCBs were present. Laboratory analytical results indicated PCB concentrations were less than 50 milligrams per kilogram (mg/kg). To confirm these results, three test pits were excavated around transformer T-122 and soil samples were collected and analyzed for PCBs. The analytical results for one of the six samples indicated a PCB concentration of 320 mg/kg; the others had PCB concentrations of 8 mg/kg or less (Stone and Webster 1988a).

Additional soil samples were then collected by GNP to determine the extent of PCB Impacted soils. The samples were obtained at numerous locations by drilling with a power ice auger to specified depths, sampling the cuttings, excavating to that depth, and repeating the process to the bottom of the auger hole. The locations of the borings are shown on Figure 3 (shown below).

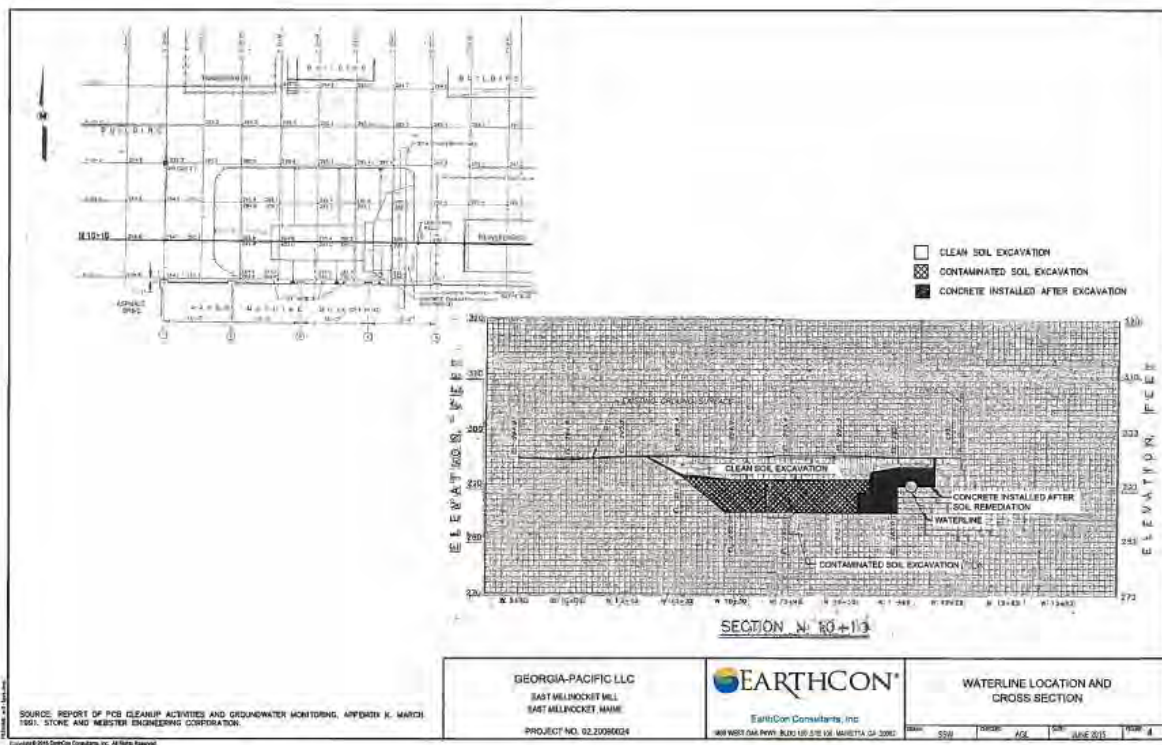
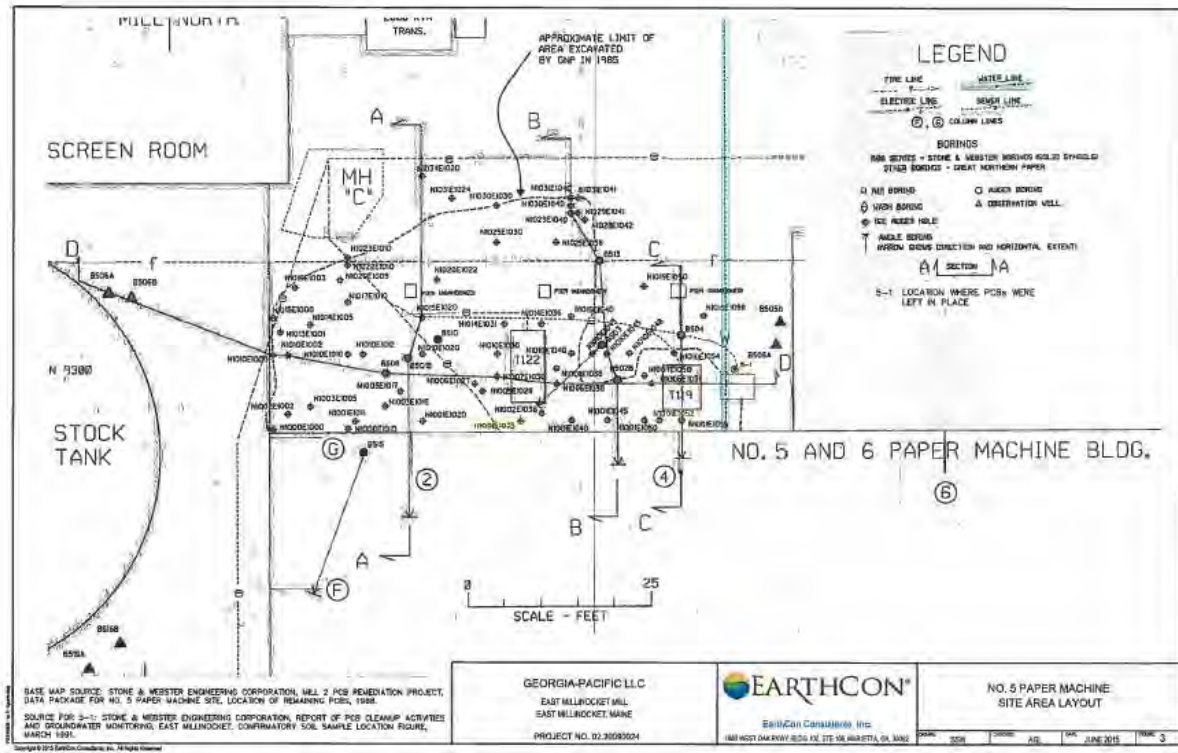
In November and December 1985, GNP removed PCB impacted soil to depths of approximately 7 to 10 feet near the wall of the No. 5 Paper Machine building, and to lesser depths north of the building (E.C. Jordan, 1986). This excavation removed much of the PCB impacted soils; however, the excavation immediately adjacent to the No. 5 Paper Machine building wall footing was limited to a depth of approximately 7 feet to prevent undermining the wall foundation. The excavation around the foundations for transformers T119 and T122 (Figure 3) was also limited to depths that would not undermine the transformers, which were still in service at the time (Stone and Webster 1988a).

From June 1987 through January 1988, 14 additional soil borings were drilled and six monitoring wells were installed to collect additional soil and groundwater data (Figure 3). Based on this data, a Remediation Plan for No. 5 Paper Machine Site, dated July 22, 1988 was prepared and submitted to USEPA. From July 1989 to January 1990, additional excavation/soil remediation activities were performed in accordance with this plan. Laboratory analytical results for samples collected from the surfaces of the excavations confirmed that soils with PCB concentrations in excess of 50 mg/kg had been removed and no additional excavation was necessary (Stone and Webster, 1991: Report of PCB Cleanup

Activities and Groundwater Monitoring, East Millinocket Mill. Stone and Webster Engineering Corporation. March 1991). However, the Remediation Plan for No. 5 Paper Machine Site noted that a small volume of soils containing PCBs were left in place along the wall of the No. 5 Paper Machine building, below the level of the wall foundation, to avoid undermining the building. The two locations, N1001 E1033 and N1001 E1052 are shown on Figure 3. PCB concentrations remaining at these locations are as follows: 85 mg/kg at a depth of 10.78 feet at boring N1001 E1033 and 82 mg/kg at a depth of 10.33 feet at boring N1001 E1052.

The Remediation Plan for No. 5 Paper Machine Site also called for the removal of a section of the water line pipe as shown on Figure 3. This could not be accomplished so instead, the soil surrounding the top of the pipe was excavated and removed to an elevation of 290.3 feet. Post excavation confirmation samples collected from around the pipe indicated the presence of PCBs (Aroclor-1260) at a concentration of 70 mg/kg and chlorobenzene (1,2,3,4-tetrachlorobenzene) at a concentration of 4.5 mg/kg at sample location 5-1 which is located adjacent to the west side and under the pipe as shown on Figure 3. A cross section illustrating a section of the excavation around the water line and the concentrations of PCBs left in place is shown on Figure 4 (shown below). Once excavation activities were complete, clean backfill was placed along the pipe and concrete was placed along the west side as well as along the top of the pipe, as shown on Figure 4. Upon completion of the remediation activities, the surface of the No. 5 Paper Machine Site was paved.”

Historical analytical data was collected from monitoring wells MW-803S and MW-803O since 1993. These wells are located down gradient of the No. 5 Paper Machine Site. With the exception of one detection of 1,2,3,4- tetrachlorobenzene reported in March 1994, which was flagged as suspect due to blank contamination, groundwater samples collected since August 1993 from the wells downgradient of the No. 5 Paper Machine Site have been non-detect for both chlorobenzenes and PCBs.



1.3.4 Ransom Consulting LLC, Needs Assessment & Preliminary Scope of Work Phase II Environmental Site Assessment Priority Development Areas Former GNP East Millinocket Mill, East Millinocket, Maine, dated May 28, 2020

Ransom Consulting LLC, identified the following potential contaminants of concern (CoPC) to be evaluated at select portions of the Site. The CoPC referenced in the table below include: extractable petroleum hydrocarbons (EPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), various metals, and air-phase petroleum hydrocarbon (APH). TO-15 refers to an analytical method used to evaluate VOCs in air.

Table 1: Preliminary Sampling Plan

SOURCE / RECEPTOR AREA	MEDIA & QUANTITY	CONTAMINANTS OF CONCERN / ANALYTICAL PARAMETERS	RATIONALE
Study Area 5 - Recycle Fiber Warehouse Area			
Recycle Fiber Warehouse Building	6 to 8 Soil Borings and/or Surficial Soil Samples (0 to 2 feet below grade)	EPH, PAHs, Metals	To assess the perimeter and downgradient soil conditions in the vicinity of the building.
	4 to 6 Groundwater Monitoring Wells	EPH, PAHs, Metals	To evaluate hydraulic gradient and groundwater conditions in the vicinity of the building.
	2 to 4 sub-slab or near-slab Soil Vapor Samples	Petroleum / APH	To assess soil vapor conditions in the vicinity of the warehouse building and potential exposure risks for re-occupation or redevelopment.
Chemical Storage Plant	4 to 6 Soil borings and/or Surficial Soil Samples (0 to 2 feet below grade)	VOCs, SVOCs, Metals	To assess shallow and deep zone soil conditions in the vicinity of the Chemical Storage Plant building.
	3 to 4 Groundwater Monitoring Wells	VOCs, SVOCs, Metals	To evaluate groundwater conditions in the vicinity of the Chemical Storage Plant.
	2 to 3 sub-slab or near-slab Soil Vapor Samples	VOCs / TO-15	To assess soil vapor conditions in the vicinity of the Chemical Storage Plant.
Former Recycle Fiber Plant and Flotation Cell Buildings	5 to 7 Soil borings and/or Surficial Soil Samples (0 to 2 feet below grade)	VOCs, SVOCs, EPH, PCBs, Metals	To assess shallow and deep zone soil conditions within the footprint and in the area of the former buildings.
	3 to 4 Groundwater Monitoring Wells	VOCs, SVOCs, EPH, PCBs, Metals	To evaluate groundwater conditions in the vicinity and downgradient of the former buildings.
	2 to 3 Soil Vapor Samples	VOCs / TO-15	To understand soil vapor conditions in this area in the event that this area is developed with inhabitable structures in the future.
Former Asphalt Plant	3 to 6 Soil Borings	EPH, SVOCs, Metals	To assess shallow and deep zone soil conditions in the area of the former asphalt plant.
	8 to 16 Surficial Soil Samples (0 to 2-feet below grade)	EPH, SVOCs, Metals	To evaluate surface soil conditions in the area of the former asphalt plant.

Northern Portion of Study Area 2 - No. 2 Train Shed & Shipping Area			
No. 5 & 6 Finishing Room and No. 6 Transformer Release Area	4 to 8 Soil Borings	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate soil conditions within the footprint of the former No. 5 & 6 Paper Machine building and vicinity of the previous No. 6 electrical transformer oil spill.
	3 to 5 Groundwater Monitoring Wells	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate groundwater conditions in the area of the No. 5 and 6 Finishing Room, within the footprint of the former No. 5 & 6 Paper Machine building, and in the vicinity of the previous No. 6 electrical transformer oil spill.
	2 to 3 Soil Vapor samples	Petroleum/APH and VOCs/TO-15	To evaluate soil vapor conditions in the vicinity of the No. 5 & 6 Finishing Room which is proposed for reuse.
Drum Storage Area	4 To 8 Soil Borings and/or surficial Soil Samples (0 to 2 feet below grade)	SVOCs, EPH, Metals	To evaluate soil conditions beneath currently paved areas, upgradient, and at depth, in the Drum Storage Area.
	1 to 3 Groundwater Monitoring Wells	SVOCs, EPH, Metals	To evaluate upgradient groundwater conditions, and potential impacts from railroad and delivery operations.
	2 to 3 Soil Vapor samples	Petroleum/APH and VOCs/TO-15	To evaluate soil vapor conditions for potential future development and reuse.
Hazardous Waste Storage Buildings	4 to 6 Soil Borings and/or Surficial Soil Samples (0 to 2 feet below grade)	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate potential releases and redevelopment options in the area of the hazardous waste storage buildings.
	1 to 3 Groundwater Monitoring Wells	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate groundwater conditions on the eastern portion of the site in relation to previous hazardous waste storage and railroad operations.
	1 to 2 Soil Vapor Samples	Petroleum/APH and VOCs/TO-15	To evaluate soil vapor conditions for potential future development and reuse.
Railroad Operations	12 to 16 Surficial Soil Samples (0 to 2-feet below grade)	EPH, SVOCs, Metals	To evaluate surficial soil conditions in relation to historic railroad operations and future shipping and receiving operations.
	1 to 3 Groundwater Monitoring Wells	VOCs, SVOCs, EPH, Metals	To evaluate groundwater conditions in the eastern portion of the site in relation to previous railroad operations and future development opportunities.

Study Area 6 - Wood Lot Area			
Former Chemi-groundwood Building	4 to 8 Soil Borings	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate soil conditions within the footprint and vicinity of the Former Chemi-groundwood Building.
	3 to 4 Groundwater Monitoring Wells	VOCs, SVOCs, PCBs, Metals, EPH	To assess groundwater conditions in relation to historic operations at the Former Chemi-groundwood building and evaluate potential redevelopment scenarios.
	1 to 2 Soil Vapor Samples	Petroleum/APH and VOCs/TO-15	To evaluate soil vapor conditions for future development and reuse in the area of the Former Chemi-groundwood Building.
Slasher Control Room / Wood Room	6 to 10 Soil Borings and/or Surficial Soil Samples (0- to 2 feet below grade)	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate shallow and deep zone soil conditions in the vicinity and downgradient of the Slasher Control Building and Wood Room Building.
	3 to 5 Groundwater Monitoring Wells	VOCs, SVOCs, PCBs, Metals, EPH	To assess groundwater conditions in relation to apparent spills/releases and historic operations in the vicinity and downgradient of the Slasher Control Building and Wood Room Building.
	2 to 3 Soil Vapor Samples	Petroleum/APH and VOCs/TO-15	To evaluate soil vapor conditions for future development and reuse in the area of the Slasher Control Building and Wood Room Building.
Wood Lot & Lagoon	3 to 6 Soil Borings	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate shallow and deep zone soil conditions throughout the Wood Lot area.
	3 to 6 Groundwater Monitoring Wells and/or Surface Water Samples	VOCs, SVOCs, PCBs, Metals, EPH	To assess groundwater conditions in relation to historic operations in the area of the Wood Lot and Lagoon.
	12 to 16 Surficial Soil Samples (0 to 2-feet below grade)	VOCs, SVOCs, PCBs, Metals, EPH	To evaluate surficial soil conditions in relation to Wood Lot operations and future development of commercial / industrial operations in this area.

1.3.5 KGSNE JV, LLC, Targeted Brownfields Assessment Great Northern Paper Mill-Study Area 5, East Millinocket, Maine, dated April 13, 2021

According to this report, soil samples were collected to evaluate potential impacts to shallow soils in an area of the site that was used as a temporary asphalt batching plant. 18 hollow stem auger soil borings were completed to depths approximately 6 to 20 feet below grade. 46 soil samples were analyzed for various contaminants including VOCs, SVOCs, PCBs, EPH, metals, and hexavalent chromium. One soil sample from each boring location, collected from the 0-2 foot below ground surface interval, was analyzed to evaluate near-surface soil for direct-contact exposure potential and an additional soil sample was analyzed from the deeper vadose zone based on visual/olfactory evidence, or photoionization detector (PID) headspace evidence suggesting possible contamination. If no such evidence was identified, a soil sample was analyzed from the approximate groundwater surface. 10 of the soil borings were completed as overburden monitoring wells and sampled for CoPC.

KGSNE collected soil gas samples from temporary soil gas grab points through the concrete building foundations and analyzed for VOCs and air phase petroleum hydrocarbons.

Soil encountered consisted of gravelly sand deposits throughout the study area. Thicknesses ranged between 4 and 14 feet were noted in the soil borings. Thinner bands of silty sand, silty clay, clayey silt, and gravelly silt were noted in several soil borings. Some of the gravelly sand contained evidence of fill materials including plastic, metal, wood, roots, and stumps. Therefore, it may be concluded that at least some of this deposit is landfill. Bedrock was not encountered in any of the soil borings advanced.

Groundwater flow direction is towards the southwest, and the adjacent river at an approximate hydraulic gradient of 0.03 feet per foot.

Relatively few soil samples exhibited CoPC concentrations exceeding MEDEP Remedial Action Guideline (RAG) for commercial workers and construction workers. Acetone (likely a laboratory contaminant), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and toluene were detected in soil samples collected from the former Chemical Plant area. None of these detections exceeded MEDEP RAGs. Therefore, based on these results, VOCs are not considered a soil contamination concern.

Numerous polynuclear aromatic hydrocarbons (PAHs) were detected in the former asphalt plant area. The majority of the soil samples collected were within the top 2 feet of soil; however, the maximum PAH concentrations were reported in a soil sample collected from between 4 and 6 feet below grade. Benzo(a)pyrene at 17,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$) in a soil sample collected from FAP-9 at between 4 and 6 feet below grade was the lone substance that exceeded the MEDEP RAG for the Construction Worker Scenario. None of the other PAH detections exceeded the MEDEP RAG for the Commercial Worker Scenario.

Detectable concentrations of EPH substances were reported in each of the areas investigated, however, none of these concentrations exceeded MEDEP RAGs. Based on these results, EPH contamination in soil does not appear to be significant.

Arsenic is the sole metal that exceeded the Undeveloped MEDEP Background Upper Prediction Limit (UPL) value of 16 milligrams per kilogram (mg/kg), however, none of the concentrations exceeded the MEDEP Commercial Worker or Construction Worker RAG. The highest arsenic concentration (28.9 mg/kg) is reported in the former asphalt batch plant area. This sample was collected from between 0 and 2 feet below grade at soil boring FAP-9.

Only one VOC (dichlorodifluoromethane) was detected in groundwater samples. Dichlorodifluoromethane (a refrigerant) was detected at 19 micrograms per liter ($\mu\text{g/L}$) in monitoring well CSP-2, located slightly south of the former Chemical Storage Plant. Although the reported concentration is well below the MEDEP RAG and the Maine Center for Disease Control Maximum Exposure Guidelines for drinking water (MEGs), the VOC was also detected at elevated concentrations in nearby soil vapor samples. The source of the dichlorodifluoromethane is not known.

No SVOCs were detected above reporting limits in groundwater samples collected. Of the three groundwater samples collected for EPH analysis, only one (RFP-3) reported a detection. This sample contained naphthalene at $5.7 \mu\text{g/L}$, which does not exceed the MEDEP Commercial Worker RAG or MEG. Therefore, the presence of naphthalene does not appear to be significant.

Although arsenic was detected in several samples; however, only the CSP-1 sample (at $38 \mu\text{g/L}$) exceeded the MEGs. This monitoring well is located east of the former Chemical Storage Plant adjacent to former storage tanks. The source of the arsenic is not known but may be related to past site operations or natural deposits. At $9.1 \mu\text{g/L}$, this lead concentration is well below the MEG and the U.S. EPA Primary Drinking Water Maximum Contaminant Level (MCL). Groundwater at the former mill complex is not a drinking water source, therefore, the presence of these metals in groundwater is not considered significant.

Numerous substances were detected in soil vapor samples collected from Study Area 5. These results were compared to the Maine Air RAGs for the Commercial Exposure Scenario. Although 30 VOCs were detected in soil gas samples, only dichlorodifluoromethane was detected at a concentration exceeding the Maine Commercial Worker Air RAG in the sample collected from RFP-6 at a concentration of 19,000 micrograms per cubic meter ($\mu\text{g/m}^3$). Application of the sub-slab indoor air attenuation factor (0.03) to the measured concentration results in an adjusted concentration of $570 \mu\text{g/m}^3$, which still exceeds the Maine Commercial Worker Air RAG of $440 \mu\text{g/m}^3$. This refrigerant was also detected in a nearby groundwater sample (CSP-2); however, it was not detected in soil samples. As dichlorodifluoromethane has an extremely high vapor pressure, it is possible that the act of collecting soil samples was sufficient to volatilize low concentrations of the substance. The source of the dichlorodifluoromethane is not known but appears to be limited to the former Chemical Storage Plant and former Recycle Fiber Plant areas.

Several petroleum hydrocarbons were detected in the soil vapor samples collected from the former Recycle Fiber Warehouse, however, no concentrations exceeded respective Maine Commercial Worker RAGs.

The report describes that elevated PAH contamination detected in soil samples collected from the former asphalt batch plant area may require remediation as part of the site redevelopment program. Additionally, the detection of dichlorodifluoromethane at elevated concentration in soil gas samples may also require management prior to redevelopment. The benzo(a)pyrene concentration detected in FAP-9 between 4 and 6 feet below grade exceeds the Maine Construction Worker RAG. As residential use of this and other areas are not anticipated as part of the site redevelopment, it does not appear that active soil remediation will be necessary to address the detected substances. Institutional controls such as Activity and Use Limitations (AULs) and soil management may be necessary to prevent unrestricted reuse of the area.

The presence of dichlorodifluoromethane in soil gas in the former Chemical Storage and Recycling Fiber Plants may require management should occupied structures be built over the area. Assuming the source of the dichlorodifluoromethane impacts remains unknown, sub-slab vapor management systems would adequately address potential risks for indoor air contamination due to this substance. A system may be passive (e.g., sub-slab vapor barriers, or a passive vacuum pit and piping) or active, a sub-slab pit or pipe gallery with active pumping of accumulated vapors. The simplest mitigation approach is to install a vapor barrier. This barrier would be approximately 20 mil in thickness and be a high-density polyethylene product. Assuming that a single sheet is not feasible to underlie the entire footprint, it may be necessary to weld several seams with an epoxy or similar material.

1.3.6 KGSNE JV, LLC, Targeted Brownfields Assessment Great Northern Paper Mill-Study Area 2 North, East Millinocket, Maine, dated February 16, 2022

According to this report, Study Area 2 includes former railroad operations, drum storage operations, a hazardous waste storage area, finishing rooms and a paper warehouse and the contaminants of concern are based on the past uses in the area and prior investigations. The CoPC include:

Railroad Operations/Train Shed No. 2

“Given its use in the transfer of mill feedstock and products, spills and small releases of process chemicals and/or petroleum products to the ground surface are possible. Therefore, the following CoPC are identified: SVOCs, EPH, PCBs, the 13-priority pollutant (PP13) metals, and hexavalent chromium.”

No. 5 and 6 Finishing Room

“Based on prior evaluations, the building itself is not weatherproof and exhibited petroleum staining on the concrete floors that appeared to be associated with mill equipment. This staining may have been transported to environmental media. Additionally, an estimated 600-gallon 1978 PCB (Aroclor-1260)-containing dielectric fluid release impacted surface and subsurface soil adjacent to the No. 5 and 6 Finishing Rooms. The fluid also reportedly contained chlorobenzene compounds. Based on these conditions, the following CoPC are identified: VOCs, SVOCs, EPH, PCBs, PP13 metals, and hexavalent chromium.”

Hazardous Waste Storage Area

“During mill operations, hazardous wastes including corrosives, ignitable wastes, various metals, chlorinated solvents, waste oil, and PCB-containing materials were temporarily stored within these sheds

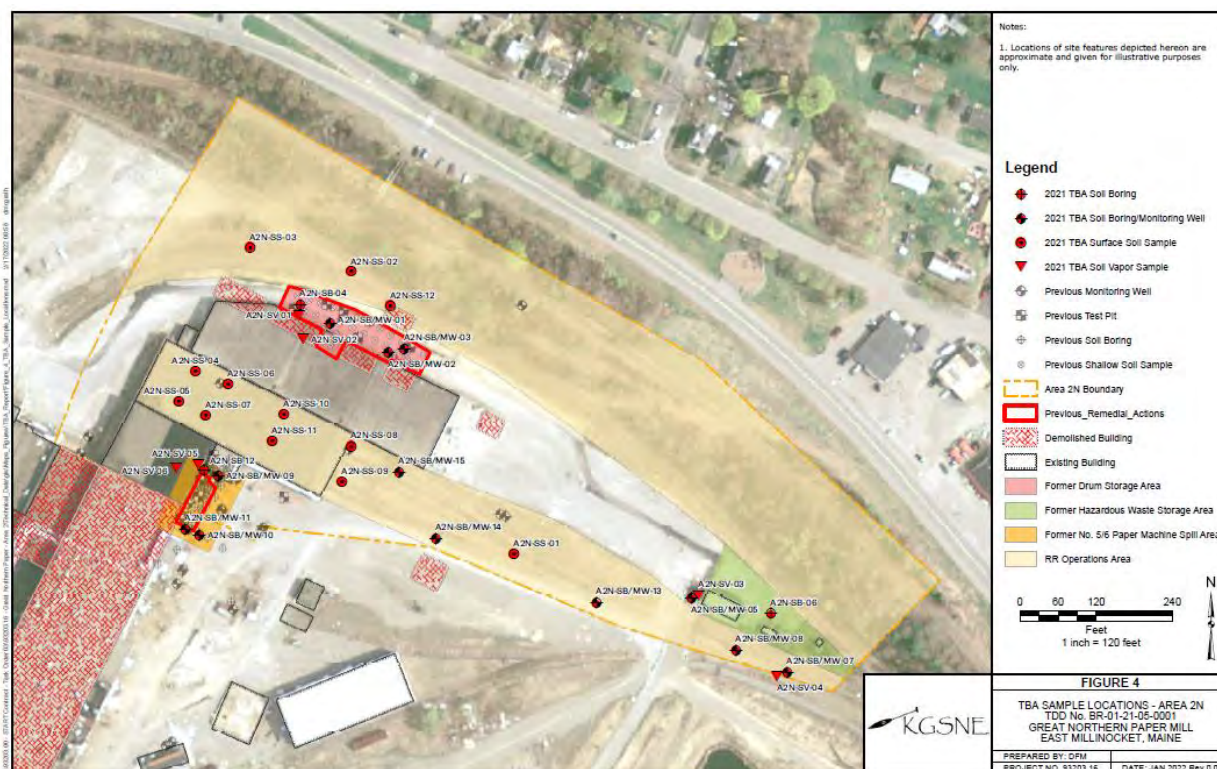
for proper disposal. Additionally, radioactive-source-containing equipment (likely β particle emitters used to measure product weight) were also reportedly present. Such equipment is generally shielded by using thin sheets of metal or thicker wood blocks. β particle sources included in the equipment are likely well shielded and if present are within the storage shed which provides additional shielding. The presence/absence of this equipment is not known but is not likely present. No investigations are planned in the area around this shed; however, refer to the health and safety plan for further details regarding monitoring etc. Based on these conditions, the following CoPC are identified: VOCs, SVOCs, EPH, PCBs, PP13 metals, and hexavalent chromium.”

Drum Storage Area

“The Drum Storage Area formerly contained drums of waste oil, some of which had other hazardous materials intermixed. Remedial excavations in the area were conducted in the late 1980s which removed primarily petroleum-contaminated soil. However, low concentrations of PCBs (Aroclor-1260) and 1,1,1-TCA were also encountered. Based on the known releases at the site, the following CoPC are identified: VOCs, SVOCs, EPH, PCBs, PP13 metals, and hexavalent chromium.”

Work Completed and Results

15 soil borings were completed to between approximately 8 and 16 feet below grade (Figure 4 shown below). Soil and groundwater samples for CoPC were collected from each boring and well location.



Soil vapor samples from 6 temporary soil vapor grab points were collected by using a hammer drill to core through the concrete building foundations or a slide hammer to penetrate surface soil.

Gravelly sand deposits were observed throughout the study area. Thicknesses ranging between 4 and 14 feet were noted in the soil borings. Thinner bands of silty sand, silty clay, clayey silt, and gravelly silt were noted in several soil borings. Some of the gravelly sand contained evidence of fill materials including wood, and ash material. Therefore, it may be concluded that at least some of this deposit is landfill. Bedrock was not encountered in any of the soil borings advanced.

Based on the groundwater depth measurements, the approximate groundwater flow direction is towards the southwest, and the adjacent river. The approximate hydraulic gradient is estimated at 0.02 feet per foot.

Relatively few soil samples exhibited CoPC concentrations exceeding Maine Remedial Action Guidelines (RAGs). The vast majority of the detections were well below MEDEP RAGs, while 1,2,4-trichlorobenzene (1,2,4-TCB), 1,4-dichlorobenzene (1,4-DCB), and 1,2,3-trichloropropane (1,2,3-TCP) were detected above their respective groundwater leachability RAGs. Each of these parameters was well below the residential, commercial, construction worker direct contact RAGs. The presence of the chlorobenzene compounds is related to the transformer dielectric fluid spill in the late 1970s and appears to be focused in that area. 1,2,3-TCP was detected (32 micrograms per kilogram ($\mu\text{g}/\text{kg}$) in soil boring A2N-SB-06 from between 6 and 8 feet below grade. This sample is located in the former hazardous waste storage area. No detectable concentrations of 1,2,3-TCP were reported in the shallow soil sample collected from A2N-SB-06, and it was not detected in other nearby soil borings, groundwater, or soil vapor samples. Therefore, it is likely that this release is very localized and does not appear to impact other media.

PAHs represent the majority of the SVOC detections in soil samples. The following PAHs were reported at concentrations exceeding at least one of the MEDEP RAGs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene. The PAH impacts appear to be limited to surface soil within the former transformer oil spill location, near-surface soil beneath a paved road located immediately south of the rail sidings accessing the train shed, and surface soil located along the rail sidings accessing the train shed. Surface and near-surface soil samples collected from the former transformer oil spill location include A2N-SB/MW-10 (0-2 ft) and A2N-SB/MW-11 (2-4 ft). The samples from these locations exhibited benzo(a)pyrene concentrations exceeding only the MEDEP RAG for the residential scenario. Only the surface soil samples (A2N-SB/MW-13 and A2N-SB/MW-14) collected from the paved road south of the rail sidings contained concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene exceeding the MEDEP RAG for the residential scenario. Of these, the concentrations of benzo(a)anthracene and benzo(a)pyrene also exceeded the MEDEP RAG construction worker, commercial/industrial worker, and/or the leaching to groundwater criteria. Layers of asphalt and ash-containing fill materials were identified beneath the asphalt pavement. Based on the presence of the asphalt and ash materials in the fill and the lack of a field headspace response or petroleum odor, it appears likely that the asphalt and ash debris may be the cause of the elevated PAH contamination rather than a fuel-related release.

Several surface soil samples collected from within the train shed contained concentrations of benzo(a)pyrene or naphthalene or both that exceed the MEDEP RAG for the residential scenario (benzo(a)pyrene) or the Maine leaching to groundwater RAG (naphthalene). Slightly elevated (e.g., less

than 10 ppm headspace measurements were recorded with these samples suggesting a possible fuel-related source. Based on the proximity of each of these samples adjacent to the rail sidings, it is possible that the source may be railroad related. The PAH contamination does not appear to be significant, with only a small area of PAH impacts beneath a paved access road exceeding the MEDEP RAG for the commercial/industrial use scenario. However, sample composition included asphalt and ash debris which is the likely cause of the elevated PAH concentrations. Therefore, as long as site redevelopment is limited to commercial/industrial uses, no remedial actions related to PAH impacts are anticipated.

EPH substances were reported in each of the areas investigated; however, only one sample (surface soil sample collected from A2N-SB/MW-14) exceeded the MEDEP RAG for leaching to groundwater for the C11-C22 aromatic fraction. This sample contained quantities of asphalt and ash debris within the sample matrix. As with the PAH contamination described above, it is also likely that this debris also resulted in the elevated EPH fraction concentration. This EPH impact does not appear to be widespread, and therefore no further action is anticipated.

PCB aroclor-1260 was detected in soil samples collected throughout the former transformer oil spill area and within the train shed. The majority of these concentrations were low (e.g., less than 1 mg/kg) with the exception of a sample collected from between 8 and 10 feet below grade from boring A2N-SB-12. This boring is located slightly northeast of the PCB release excavation area. Although low concentrations of PCBs were identified in surface soil and near-surface soil samples collected from the perimeter of the PCB remediation area, no PCB detections were identified in the surface soil sample collected from boring A2N-SB-12. This PCB distribution fits the conceptual site model expressed by Tetra Tech in their June 6, 2018 Technical Memorandum regarding the PCB Assessment and Remediation at the East Millinocket Site. This memorandum suggested that PCB impacted soil remaining after the remedial action was present at depths of 5 feet or greater. This coupled with the MEDEP's prohibition of soil excavation in the PCB release areas as expressed in the VRAP no action assurance letter and certificate of completion continue to provide sufficient protectiveness. Should excavation of this area be contemplated during site redevelopment, correspondence with MEDEP will be necessary, and the soil management should be comprehensively planned.

Each of the metals analyzed was detected at least once; however, only arsenic and hexavalent chromium were detected above one (or more) of the MEDEP RAGs. Every arsenic concentration exceeded the MEDEP RAG for leaching to groundwater (0.83 mg/kg), and several of these also exceeded the MEDEP RAG for the residential scenario. One surface soil sample collected from A2N-SS-01 (located along the train shed rail siding) also exceeded the MEDEP commercial and construction worker scenarios RAGs.

Arsenic is a naturally occurring metal for which Maine has estimated an undeveloped rural background concentration of 16 mg/kg. This value may be used to represent background conditions should the presence of arsenic in on-site soil samples be unrelated to anthropogenic influence. The arsenic detected in the majority of site soil samples are below 16 mg/kg which suggests that it is related to natural background conditions. Potential arsenic sources include arsenic-based pesticide/herbicide usage in/around the rail sidings to preserve wooden ties, the use of arsenic-based pressure treated ties, or possibly in inks historically used in the printed paper industry (although the East Millinocket mill produced newsprint and not printed paper). Therefore, the rail sidings may represent a source of arsenic

contamination. The arsenic concentrations nearest the railroads exhibited significantly higher arsenic concentrations than those collected from elsewhere within Area 2 N and from elsewhere on the mill complex. Therefore, it may be assumed that the elevated arsenic concentrations are likely related to rail operations. The vertical extent of the arsenic presence has not been fully established; however, deeper soil samples did not exhibit elevated arsenic concentrations in soil borings. The release of arsenic-containing materials during rail operations likely occurred at the surface and would not be expected to substantially migrate vertically.

The hexavalent chromium species represented a miniscule amount of the total chromium detected in soil samples. All of the hexavalent chromium results were well below the MEDEP RAG for the residential, commercial, and construction worker scenarios. However, eight of the samples contained hexavalent chromium concentrations exceeding the MEDEP RAG for leaching to groundwater. Additionally, many of the laboratory reporting limits exceeded this value as well. Groundwater samples collected from the newly installed monitoring wells did not contain detectable concentrations of hexavalent chromium. Therefore, it is unlikely that hexavalent chromium presence represents a potential risk to groundwater. No further action is recommended to address the hexavalent chromium in soil.

Relatively few groundwater samples exhibited CoPC concentrations exceeding MEDEP RAG criteria and/or MEGs for drinking water. One groundwater sample exhibited VOC concentrations exceeding MEDEP RAGs and/or MEGs. The sample collected from A2N-SB/MW-11 contained several chlorobenzene concentrations that exceed criteria. This monitoring well is located slightly downgradient of the transformer dielectric fluid release and remedial action area. The dielectric fluid reportedly contained significant quantities of chlorobenzene compounds, which is also reflected in several soil samples collected as part of this assessment "from this area. The extent of the VOC contamination has not been established. Samples collected from nearby monitoring wells did not detect significant VOC impacts; however additional monitoring wells better positioned to detect such a plume may be necessary to adequately define the extent of this contamination.

Chlorobenzene compounds were also detected in the SVOC analysis conducted on the groundwater sample collected from A2N-SB/MW-11. The concentrations reported in the SVOC analysis were slightly lower than their parent VOC analytical fraction and also exceed MEDEP RAGs and/or MEGs. As stated above, additional characterization of this release will be necessary to establish an extent of contamination. No other SVOCs were detected above the reporting limits in groundwater samples.

No PCBs or EPHs were detected above laboratory reporting limits in groundwater samples. Several metals were detected in groundwater; however, only arsenic and lead exceeded MEDEP RAG/MEGs. Arsenic exceeded the Maine Residential Tapwater RAG of 0.52 µg/L in most samples, but exceeded the MEG of 10 µg/L in only one sample (A2-MW-07 at 11 µg/L). Similarly, lead exceeded the Maine Residential Tapwater RAG of 5 µg/L in two samples, but the MEG of 10 µg/L in only one sample (A2-MW-01 at 11.6 µg/L). The sample collected from monitoring well A2N-MW-07 is located the furthest east and downgradient of the former hazardous waste storage area. The arsenic concentration in this well is slightly above the MEG, and no drinking water supplies are located nearby. Therefore, no active human health risks are associated with this arsenic contamination. The sample collected from monitoring well A2N-MW-01 is the most upgradient sample collected as part of this TBA. No lead-related soil impacts

were identified in soil samples collected. The lead concentration in the groundwater sample is slightly above the MEG, and no drinking water supplies are located nearby. Therefore, no active human health risks are associated with this lead contamination.

Numerous substances were detected in soil vapor samples collected from Study Area 2. These results were compared to the MEDEP Air RAGs for the Commercial and Residential Indoor Air Exposure Pathways. Numerous VOCs were detected in soil vapor samples; however, only two VOCs were detected above their respective MEDEP RAGs for the residential scenario: 1,4-Dichlorobenzene at 8.4 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in sample SV-04, and tetrachloroethylene (PCE) at $80.7 \mu\text{g}/\text{m}^3$. The established MEDEP RAGs are $2.6 \mu\text{g}/\text{m}^3$ and $42.0 \mu\text{g}/\text{m}^3$, respectively. PCE was not detected in soil or groundwater. Neither of these concentrations exceeded the MEDEP RAG for Commercial Indoor Air, therefore, no active human health risk potential exists as long as the area remains developed/redeveloped for commercial or industrial use. As with the VOCs in soil vapor samples, several petroleum hydrocarbons were detected in the soil vapor samples as well. Some of these detections exceeded MEDEP RAGs for the residential exposure scenario. These include: 1,3-butadiene, C5-C8 aliphatics, and C9-C12 aliphatics. None of these concentrations exceed the MEDEP RAG for the commercial/industrial scenario. Therefore, as long as the property remains commercial/industrial in its usage, no further action is necessary.”

CONCLUSIONS & RECOMMENDATIONS

“Elevated PAH contamination detected in soil samples collected from the former asphalt batch plant area may require remediation as part of the site redevelopment program. Additionally, the detection of dichlorodifluoromethane at elevated concentration in soil vapor samples may also require management prior to redevelopment.

Former Drum Storage Area

The Former Drum Storage Area exhibited minimal soil contamination, mainly by arsenic and hexavalent chromium concentrations that exceeded only the MEDEP RAGs for leaching to groundwater. Groundwater samples collected from this area identified arsenic at a concentration exceeding the Maine Tapwater RAG but below the MEG. Lead was also detected above the Maine Tapwater RAG and the MEG in one of two groundwater samples collected from this area. Lead was not detected in soil samples above any MEDEP RAGs. No other contaminants were detected in groundwater samples exceeding either the MEDEP RAG or the MEGs.”

Soil vapor samples collected from this area detected concentrations of PCE, 1,3-butadiene, and C5-C8 aliphatic hydrocarbons above their respective MEDEP RAGs for the residential indoor air scenario only.

Based on these results, as well as the December 1989 closure report, as long as the area remains developed for commercial/industrial uses, and groundwater is not used for drinking purposes, no further actions are necessary to address contaminants associated with the Former Drum Storage Area.

Former Hazardous Waste Storage Area

The Former Hazardous Waste Storage Area exhibited minimal soil contamination, primarily by arsenic concentrations that exceeded the MEDEP RAG for leaching to groundwater and/or for the residential use

scenario. Groundwater samples collected from this area identified arsenic at a concentration exceeding the Maine Tapwater RAG but below the MEG. No other contaminants were detected in groundwater samples exceeding either the MEDEP RAGs or the MEGs.

Soil vapor samples collected from this area detected concentrations of 1,4-dichlorobenzene and C9-C12 aliphatic hydrocarbons above their respective MEDEP RAGs for the residential indoor air scenario only. Based on these results, as long as the area remains developed for commercial/industrial uses, no further actions are necessary to address contaminants associated with the Former Hazardous Waste Storage Area.

No. 5 and 6 Finishing Room and Transformer Spill Area

The historical transformer spill area located adjacent to the former No. 5 and 6 paper machine building remains a source of chlorobenzene, PCB, and PAH contamination in soil. Arsenic concentrations in soil were detected above only the MEDEP RAG for leaching to groundwater. Of the soil contaminants, the chlorobenzenes and arsenic were detected at concentrations exceeding their respective MEDEP RAGs/MEGs in groundwater. Only 1,2,4-TCB and 1,3-DCB were detected above the MEGs and 1,2,4-TBC was also detected above the MEDEP RAGs for the construction worker scenario. The extent of this contamination has not yet been determined; however, based on the data collected, the impacts appear to be limited to depths of greater than 4 feet below existing grade. Investigations beneath the adjacent floor slabs could not be conducted as the No. 5 and 6 Paper Machine Building demolition debris prevented access to that portion of the slab, and insufficient height clearance was afforded in the former No. 5 and 6 Finishing Building to be able to conduct investigations. Additional soil characterization is necessary to the north and west of the release area, and additional groundwater characterization is necessary downgradient and cross-gradient of the release area. Additionally, as the chlorobenzene substances have a higher specific density than that of water, migration may be both lateral and vertical. Therefore, deeper monitoring wells should be installed to evaluate the groundwater conditions at depth.

Soil vapor samples collected from beneath the floor slab in the former No. 5 and 6 Finishing Building did not detect any chlorobenzene compounds, but did identify C5-C8 aliphatic and C9-C12 aliphatic hydrocarbons at concentrations exceeding their respective MEDEP RAGs for the residential indoor air scenario.

The PCB remedial action was completed in compliance with Toxic Substances Control Act (TSCA) and an associated Consent Agreement and Final Order (CAFO) issued by EPA. In 2003, MEDEP issued a VRAP "no action assurance letter and certificate of completion" related to this PCB remedial action. Routine groundwater monitoring was required by EPA as part of the CAFO, but had not detected PCBs in groundwater (except on two occasions) during the ensuing 25 years. Georgia Pacific issued a document stating that it believed that the obligations outlined in the CAFO were completed and that remaining contamination would not serve as a risk to human health unless the soil in the area is excavated. Furthermore, as a condition of the liability limitation, the VRAP letter requires that MEDEP be notified if such excavation activities are contemplated. Based on the available data, and the available file information, KGSNE agrees that the PCB contamination is controlled by the existing concrete floor slab and the MEDEP excavation preclusion. Further investigation of soil and groundwater conditions will be

necessary to establish the limit of chlorobenzene impacts in soil and groundwater and ultimately on the redevelopment approach for this area.

Railroad Operations/Train Shed No. 2

The historical rail operations occupy a large swath of Area 2 North. Investigations targeted a portion of the historical rail operations areas to identify whether the former rail operations may have resulted in releases to the environment. Investigations were conducted along the rail sidings as well as within the No. 2 Train Shed. PAH concentrations varied significantly within the former railroad operations area. The highest concentrations detected in surface soil samples came from directly beneath a paved access road (A2N-SB/MW-13 and A2N-SB/MW-13). Debris including asphalt and cinders were included in the matrix. Soil samples collected from other portions of the railroad operations area were significantly lower. It is likely that the debris encountered in the surface soil samples from the two soil borings noted above impacted the PAH concentrations. Additional surface soil characterization in the area of the two anomalously elevated concentrations may be required as these anomalously elevated concentrations have a significant impact on the 95% UCL concentration. None of the subsurface soil samples (collected from 8-10 feet below grade) reported positive detections.

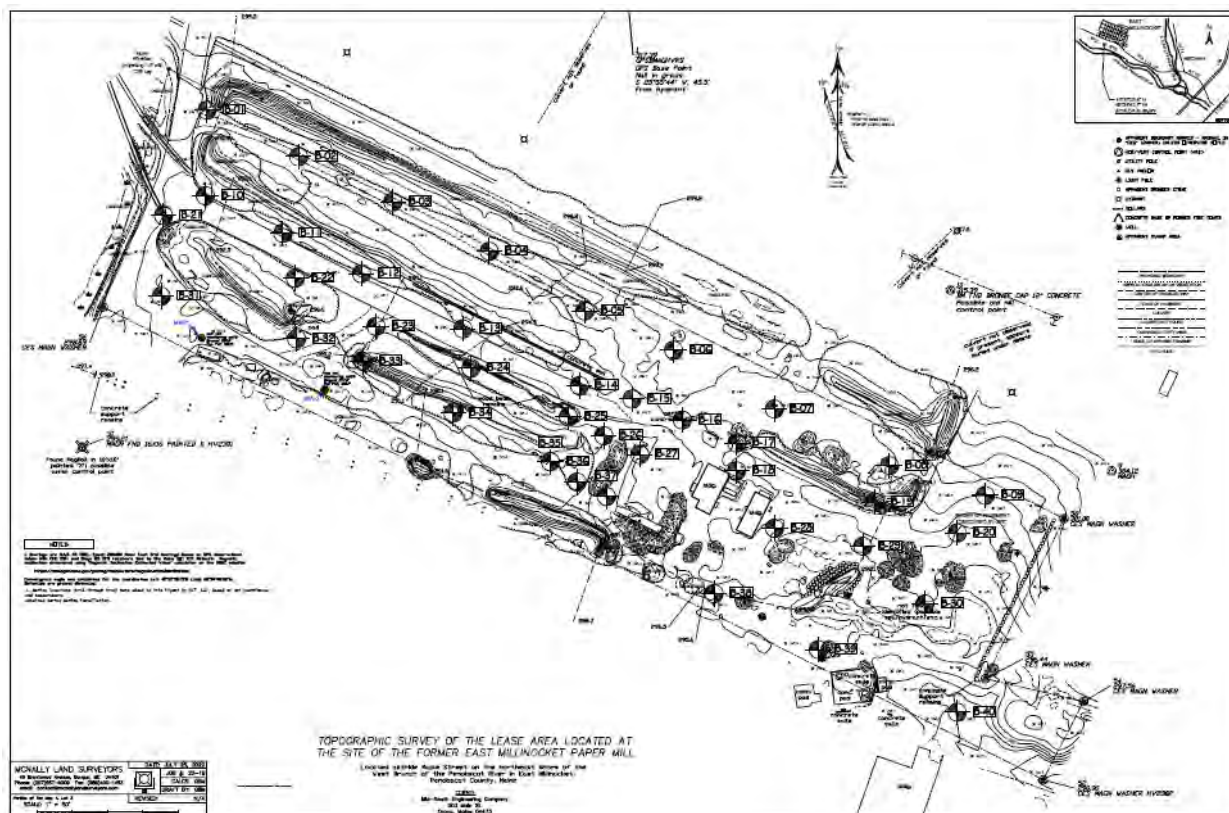
Arsenic concentrations proximal to the former rail operations are higher than the arsenic concentrations detected away from the rail operations. This suggests that the rail operations may have contributed to the elevated arsenic concentrations. The source of the arsenic is not known; however, it could have resulted from application of arsenic-based pesticides/herbicides or railroad tie preservation, or via releases of cargo from rolling stock. The 95% UCL on the mean of the surface soil (e.g., 0-2 feet below grade) sample arsenic concentrations within the railroad operations area is 40.85 mg/kg, which is approaching the MEDEP RAG for the commercial/industrial use scenario. However, this value appears to be highly sensitive to an outlier concentration of 80.6 mg/kg collected from the surface soil sample A2N-SS-01. Subsurface soil samples collected from between 8 and 10 feet below grade reported arsenic concentrations well below the MEDEP RAG background concentrations. Additional characterization of the surface soil within the former railroad areas not previously investigated, particularly in and around the A2N-SS-01 location, will be necessary to establish a basis for potential remedial action."

1.3.7 Fessenden Geo-Technical, LLC, Phase II Site Investigation Results E-railZ Lease Area, Mill #2 Property, East Millinocket ME, dated September 6, 2022

According to this report, "the area located on the western portion of the former East Millinocket Mill identified as the "Lease Area" is a subtenant to E-railZ, Inc. The Lease Area is approximately 11.4 acres in size and the work is to assess the nature and extent of potential contamination related to historical operations in the Wood Yard area of the former Great Northern Paper mill site. Levels of soil and groundwater contamination for the CoPC included in this investigation do not exceed applicable site cleanup standards or present a human exposure risk associated with the proposed construction activities. Soil and groundwater laboratory analytical results did not indicate that soil and groundwater conditions contain concentrations of EPH, benzene, toluene, ethyl benzene, and xylene (BTEX), PCBs, or RCRA 8 Metals that would require special handling or would require additional or advanced remediation.

In general, shallow soils in the Lease Area in the 0 to 6 ft below grade surface depth range consist of heterogeneous silty sand with gravel fill, with varied amounts of cobbles, brick, asphalt, clay, organics, and woody debris mixed in. A layer of wood chips was observed in several borings. Material tested from this layer resulted in the highest PID screening readings obtained on the Site. Laboratory analytical results for material (primarily ground up wood chips) tested from these layers did not result in exceedance of applicable site cleanup standards. Shallow soils (0 to 6 ft below grade surface) and soils at depth (6 to 14 ft below grade surface) in the Lease Area do not indicate the presence of the CoPC at concentrations which would warrant remediation or revision to the proposed development area due to contamination levels exceeding applicable Site cleanup standards for the MEDEP construction worker or commercial worker human exposure pathway RAGs. In deeper borings, native soils were observed at depth beginning between 14 ft and 15 ft below grade surface and consisted primarily of dense or very dense, fine to coarse silty sand with gravel, with gravel and silt composition increasing with depth. Groundwater quality results in the Lease Area (Study Area 6) align with results from upgradient Study Area 5, indicating the CoPC are minimally present or not detected in groundwater at the Site.

Based on field screening and laboratory analytical confirmation results for the CoPC in soil and groundwater samples, the existing environmental soil and groundwater conditions within the Lease Area do not warrant remediation and will not place environmental constraints on the proposed development plans.”



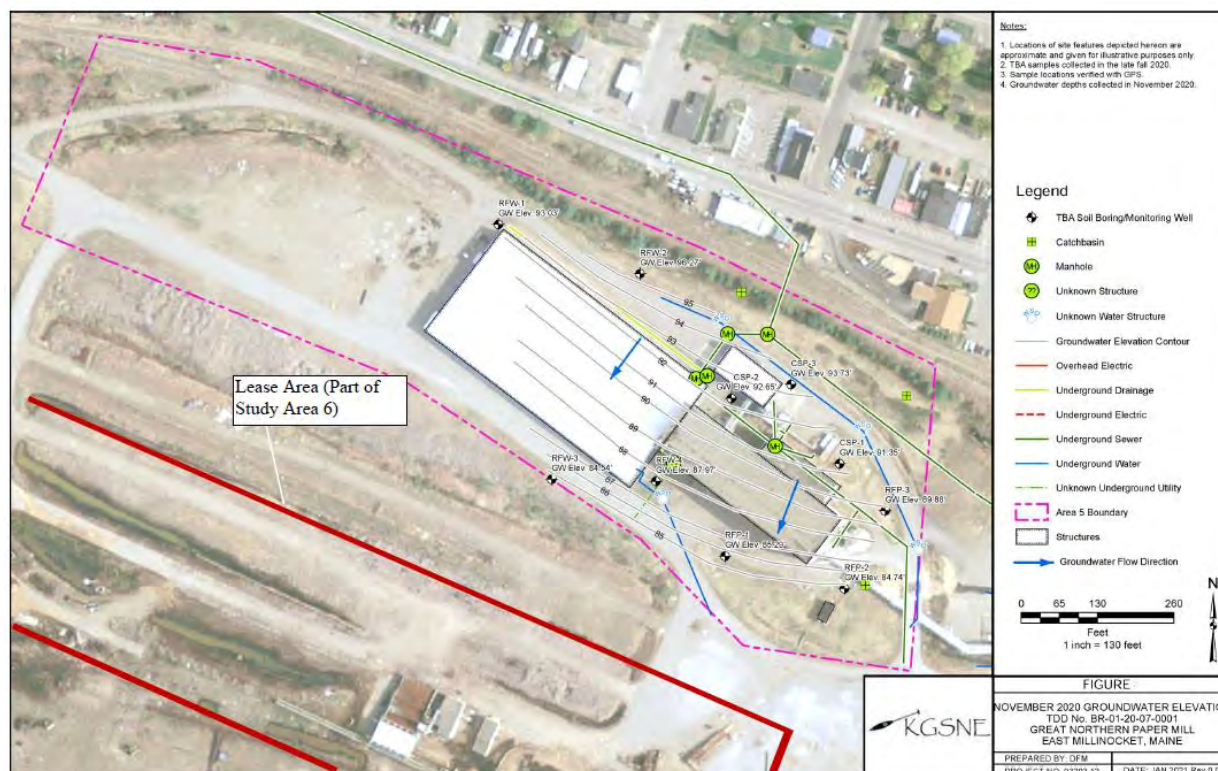


FIGURE 2: GROUNDWATER FLOW DIRECTION FROM STUDY AREA 5 EPA PHASE II INVESTIGATION RESULTS

1.3.8 Maine Department of Environmental Protection, Great Northern Paper (GNP) Site, 50 Main Street, East Millinocket, Maine, No Action Assurance Letter - Voluntary Response Action Program, dated February 14, 2023

This letter summarized the status of the site and based on the data compiled, recommended the following actions for redeveloping the Site with light industrial and commercial developments:

1. Prepare and implement an Environmental Media Management Plan (EMMP) for the Site that will be submitted to the Department for review and approval is anticipated to include:

- a. Soils and groundwater at the Site that may be disturbed and/or encountered during redevelopment must be managed according to the EMMP and may not be moved off-Site without the express written permission of the Department.
- b. The EMMP must include provisions for the further identification, assessment, confirmatory sampling, and/or characterization of potentially contaminated soils and/or groundwater that may be identified during future redevelopment activities.
- c. The EMMP must be updated at the conclusion of each redevelopment project to reflect "as-built" information related to identification of any new contamination and/or the installation of any cover systems. The updated EMMP will be submitted to the Department for review and approval.

2. Submit a plan, subject to Department review and approval, to install a vapor barrier and/or sub-slab depressurization system for any new structures constructed and/or existing structures renovated for human occupancy at the Site. Upon Department approval, install and effectively operate the approved system. Alternatively, collect, in accordance with a Department-approved sampling plan, samples demonstrating that such a vapor barrier and/or sub-slab depressurization system is not necessary.

3. A Declaration of Environmental Covenants, in accordance with the Maine *Uniform Environmental Covenants Act*, 38 M.R.S. §§ 3001–3013 (2005), incorporating conditions of approval contained in this VRAP No Action Assurance (NAA) Letter, for a portion and/or the entire Site, and that is subject to Department review and approval, must be executed for the Site and must be recorded at the Penobscot County Registry of Deeds. A copy of the recorded Declaration of Environmental Covenants must be supplied to the Department's VRAP within thirty (30) days of being recorded. Provided that the actions proposed above are completed to the satisfaction of the Department, the DEC is anticipated to include:

a. The Site must only be used for industrial and/or commercial purposes, and must not be used for residences, schools, childcare facilities, or long-term health care facilities unless the express written permission of the Department is obtained to use the Site for those purposes.

b. The extraction of groundwater at the Site is prohibited without the express written permission of the Department.

c. Soils and groundwater that may be disturbed and/or encountered during redevelopment of the Site must be managed according to a Department-approved EMMP and may not be moved off-Site without the express written permission of the Department.

d. New structures constructed and/or existing structures renovated for human occupancy at the Site must include a Department-approved sub-slab depressurization system that is effectively operated and maintained, unless the express written permission of the Department is obtained to exclude such a system from the design of a new building or terminate its operation.

1.3.9 KGSNE JV, LLC, Quality Assurance Project Plan Addendum For Soil, Soil Vapor, and Groundwater Sampling and UST Removal, Great Northern Paper Mill Targeted Brownfields Assessment East Millinocket, Maine, dated April 17, 2023

According to this document, “*Based on past uses of the area, and previous environmental investigations and remedial actions conducted at Study Areas 3, 6 and 7, the following represents a list of CoPC.*”

Study Area 3 paint shop/warehouse area/UST removal

CoPC include VOCs, SVOCs including PAHs, PCBs, EPH, and metals due to the presence of a gasoline UST, the reported past detections of VOCs in soil and TPH in groundwater in this area, and the potential past operations at the “oil and paint house”, which is also known as “warehouse J”.

Study Area 3 training center/warehouse

CoPC include SVOCs, EPH, and metals at the based on the reported past use as a temporary storage location for hazardous substances and/or petroleum products and the past salvage area located adjacent to the building.

Study Area 3 maintenance garages

CoPC include VOCs, SVOCs, PCBs, EPH, and metals based on the past use for vehicle maintenance activities and the reported detection of metals, including arsenic, barium, cadmium, chromium, and lead in soil samples collected near the former garage.

Study Area 3 transformer substation

CoPC include SVOCs, PCBs, EPH, and metals based on the presence of electrical equipment and the reported past observation of an oil sheen in the containment structure surrounding the former transformer bank.

Study Area 6 wood lot

CoPC include VOCs, SVOCs, PCBs, EPH, and metals based on the suspected past release of hydraulic oil in this area, the presence of fill debris, and the reported past release of PCB-containing oil from an electrical transformer housed at the former Chemi-Groundwood Building.

Study Area 7 log yard

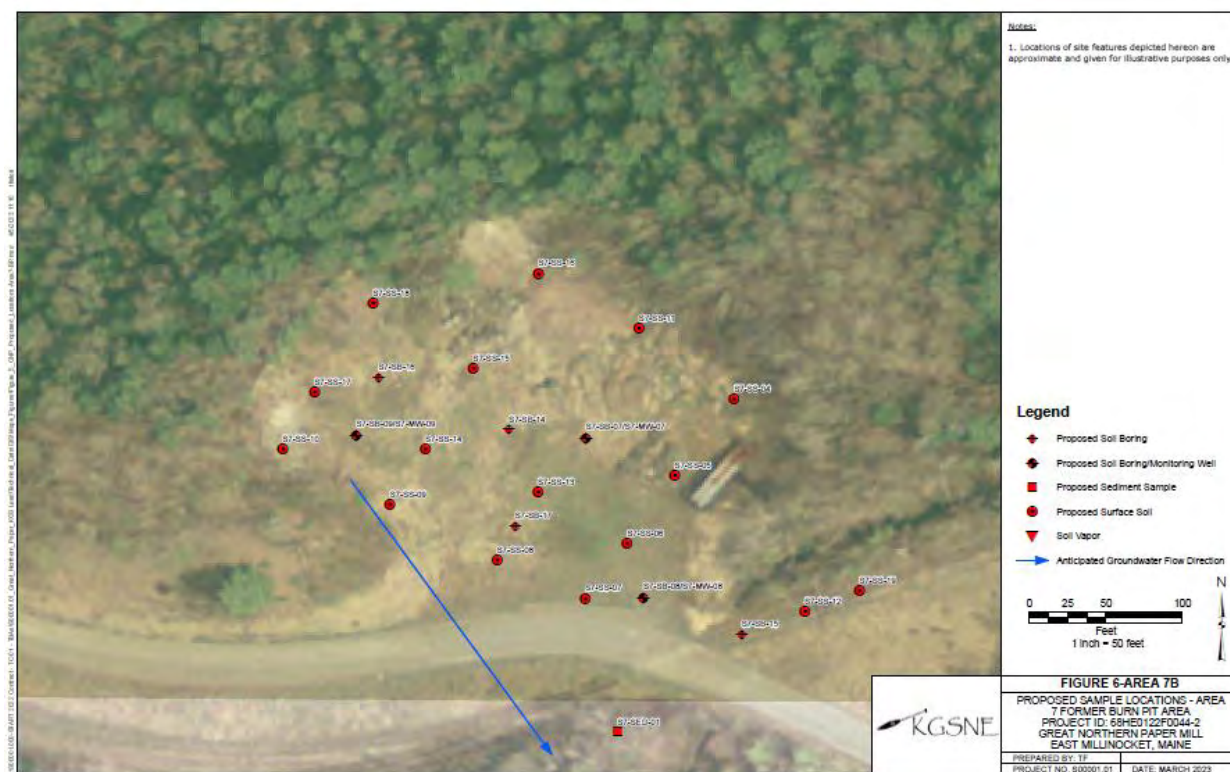
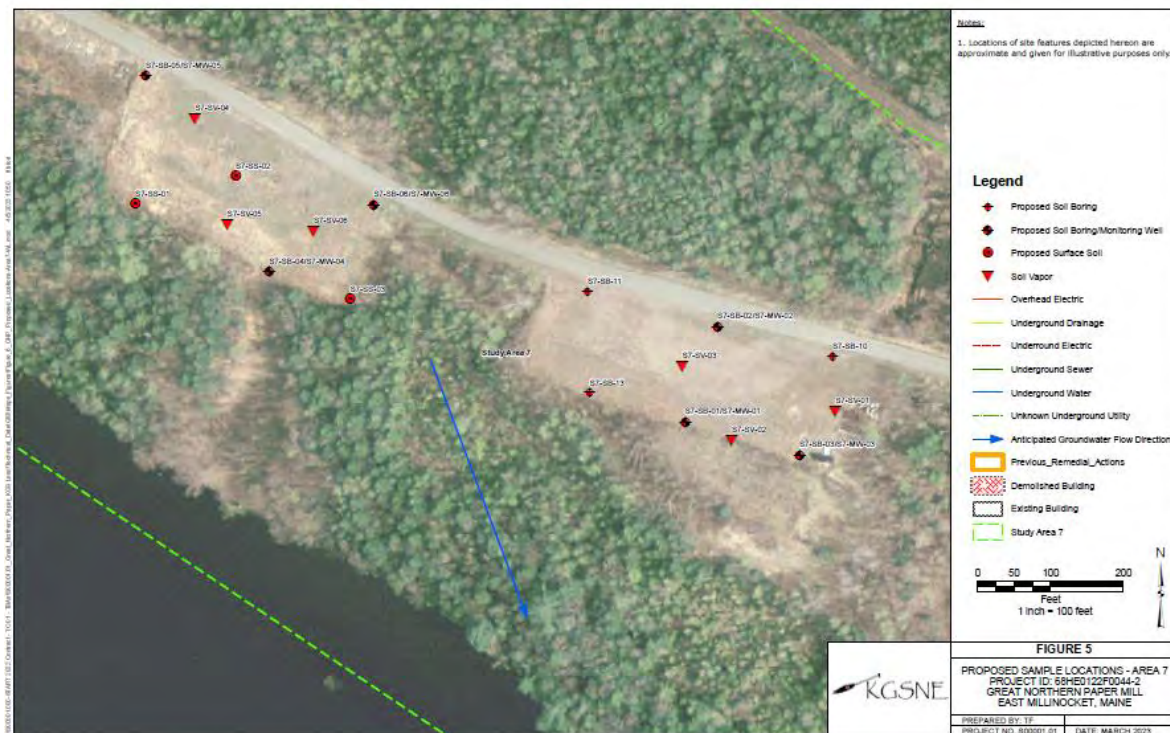
CoPC include VOCs, SVOCs, PCBs, EPH, and metals based on the reported disposal of significant quantities of solid waste debris disposed in this area.

Study Area 7 burn pit

CoPC include VOCs, SVOCs, PCBs, EPH, and metals based on the presence of fill debris, the signs of previous burning in this area, and the reported past detection of TPH in soil at the former burn pit."

Sample locations of soil, groundwater and soil vapor for Study Areas 3, 6, and 7 are included below in Figures 3, 4, 5 and 6.





1.3.10 KGSNE JV, LLC, Targeted Brownfields Assessment Report Great Northern Paper Mill – Study Areas 3, 6, and 7 East Millinocket, Maine, dated November 27, 2023

This report includes a summary of the data collection focused on Study Area 3 (Maintenance Area), Study Area 6 (Wood Lot Area), and Study Area 7 (Western Property which includes wood laydown areas and a former burn area). The following table is a summary of the analytes detected above commercial/industrial and residential RAGs in environmental media at Study Areas 3, 6, and 7.

Study Area	Soil		Groundwater		Soil Vapor	
	Comm./Ind.	Residential	Comm./Ind.	Residential	Comm./Ind.	Residential
3	Arsenic benzo(a)pyrene	Arsenic benzo(a)pyrene dibenzo(a,h)anthracene C11-C22 aromatics	--	Arsenic	VOCs APH	VOCs APH
6	--	Arsenic Thallium C11-C22 aromatics	--	Arsenic	--	--
7	Thallium	Thallium Arsenic benzo(a)pyrene	--	Arsenic	VOCs APH	VOCs APH

The removal of the former 2,000-gallon gasoline UST was conducted from May 16-17, 2023. Approximately 5 cubic yards (CY) of suspected contaminated soil was also disposed offsite along with the UST at this time. Prior to backfilling the excavated area, a warning (marker) layer was put down over suspected residual contaminated soil.

1.4 Site Regulatory History

As documented in the Site's November 23, 2022 VRAP application, *“three releases of polychlorinated biphenyls (PCBs) have occurred at the Site. Long- term groundwater monitoring was conducted in these areas beginning in the early 1990s. In 2003, the MEDEP VRAP provided a letter stating that since none of the groundwater results were above drinking water standards, the area had been considered remediated to the satisfaction of the MEDEP. MEDEP issued a No Action Assurance Letter and Certificate of Completion under VRAP on April 24, 2003. The locations of the PCB-impacted areas associated with the 2003 VRAP filing are shown on Figure 3 (prepared in conjunction with a previous Phase I ESA performed by Ransom Consulting, LLC on behalf of the Town of East Millinocket in February 2020). According to annual groundwater monitoring reports prepared for the Site, PCBs have not been detected in groundwater at concentrations above laboratory reporting limits since the late 1990s.*

In addition, and as summarized in the above-referenced reports, previous environmental investigations have identified metals (including arsenic, barium, cadmium, chromium, and lead), volatile organic compounds (VOCs), and petroleum hydrocarbons in soil and/or groundwater across the Site. Numerous petroleum releases have occurred at the Site in that past, consisting of fuel oils, hydraulic oils, transformer oils, and lubricating oils ranging in volume from less than a gallon to thousands of gallons.”

2.0 CONTAMINANTS OF CONCERN AND APPLICABLE REGULATORY CRITERIA

2.1 Areas and Contaminants of Concern

The approximate 215-acre site has been organized into seven study areas that include: **Study Area 1** Western Mill Area, **Study Area 2** Northern No. 2 Train Shed and Shipping Area, **Study Area 3** Maintenance Area, **Study Area 4** Fuel Storage Area, **Study Area 5** Recycle Fiber Warehouse Area, **Study Area 6** Wood Lot Area, and **Study Area 7** Western Property. The areas deemed most likely to be developed were the focus of the recent assessments described in this document. As a result, assessments were conducted on Study Areas 2, 3, 5, 6, and 7. Only limited data was available or reviewed for Study Areas 1 and 4.

Generally, based on sampling results of soil, groundwater, and air, there are relatively few CoPC that exceed a MEDEP RAG at the Site. Several CoPC were detected in specific locations at elevated concentrations, however, these instances may be isolated and do not necessarily represent more widespread contamination. Since the Site has been used for industrial purposes for over 100 years, the potential for spills of hazardous materials and petroleum is significant. In addition, the potential for unreported spills, especially before the advent of environmental regulations, is also significant. Therefore, although the site assessments may not have detected CoPC, there is a potential that these contaminants are present, but have not been discovered. Therefore, this EMMP will take a conservative approach as it relates to the presence of CoPC across the entire Site. CoPC that have been identified or are likely to be found include: asbestos containing materials, lead-based paint, universal wastes, VOCs, SVOCs, APH, EPH, volatile petroleum hydrocarbons (VPH), metals, and PCBs. These contaminants have the potential to be found in either soil, groundwater, building materials, or air. While additional assessment or remediation of portions of the Site is not warranted at this time, any future soil disturbance activities and or groundwater extraction should be undertaken with caution. The primary intent of this EMMP is to inform relevant parties of potential environmental hazards and ensure that any suspect material is evaluated in a manner adequately protective of human health and the environment.

2.2 Contaminants of Concern Exposure Pathways

Asbestos Containing Material (ACM)

Asbestos is a collection of naturally occurring minerals once popular in construction for its durable, fire-retardant, corrosion-resistant and insulate properties. Asbestos has historically been used in many building materials including but not limited to insulation, floor tiles, mastic/adhesive, shingles, building siding, and fabrics that resist heat. If asbestos-containing materials are damaged, disturbed, or deteriorate over time, there is a health risk because the microscopic fibers can be inhaled into the lungs. The mechanisms by which ACM could migrate at the Site include air, mechanical transport, and surface water runoff. Exposure routes at the Site may include: inhalation of ACM through short or long-term mechanism that creates air born particulates to be suspended in the air. Contaminant migration into air can occur by dust generation. Migration via mechanical transport can occur via site workers or trespassers and surface water has the potential to transport ACM as well.

Lead-based Paint and Universal Wastes

Lead-based Paint (LBP) typically coats older surfaces of building materials. Lead within the paint can be exposed to humans when chipped or sanded and can cause a health risk via inhalation or ingestion. Universal wastes consist of a range of products and materials including cathode ray tubes, fluorescent light bulbs; mercury devices like switches or lamps, mercury thermostats; totally enclosed, non-leaking polychlorinated biphenyl (PCB) ballasts, and certain batteries. CoPC within Universal wastes are primarily metals. The fate and transport of releases of these metals are described below in the following section.

Polychlorinated Biphenyls (PCBs), Metals, and Semi-Volatile Organic Compounds (SVOCs)

The fate and transport of PCBs, metals, and SVOCs in the environment are similar. In general, these constituents tend to have very low solubility and mobility and will, therefore, tend to stay adsorbed to the soil particles and not migrate substantially into the water column. Metal solubility is affected by environmental factors including soil pH and soil temperature. If, for instance, an area exhibits very acidic soil conditions, the mobility of metals will greatly increase. The solubility of SVOCs is affected by their molecular weights. As a result, it is likely that some SVOCs will mobilize more readily.

PCBs in general tend to have low water solubility and low vapor pressures. Despite the low volatility of PCBs, they can migrate through a variety of mechanisms. They are hydrophobic (low water soluble) and lipophilic (dissolve in fats, oils, lipids, and non-polar solvents such as toluene) so they tend to adsorb to organic matter. Environmental transport is compound-specific due to the unique structure of each PCB compound. This allows PCBs to move in “grasshopper patterns,” in which in warm weather they partition from soil, sediment or building materials to water and air and then fall to earth as temperatures cool, a process which allows PCBs to be dispersed over great distances.

Numerous factors can affect the mobility of PCBs in building materials, sediments and soil that include density, moisture content, as well as climate and chemical characteristics such as rainfall and organic carbon content. The presence of organic solvents can also modify the water solubility of PCBs. Over time, changes to the composition of PCB mixtures occur. These biological, chemical, and physical changes, known as weathering, affects different PCB types in different ways. Biodegradation by microorganisms is specific to different PCB compounds. Generally, de-chlorination of PCBs can occur naturally under anaerobic conditions.

PCBs in building materials can migrate from into air, dust, surrounding building materials, and soil. Inhalation exposure to PCBs is also possible when PCBs volatilize directly from source materials (e.g., PCB caulk varnish, and ballasts containing PCBs) into indoor air.

When an individual comes into direct contact with settled particulates, a portion of the PCBs (e.g., PCB caulk or varnish) may absorb through the skin. Ingestion is also possible if particulates are transferred to the mouth. Exposure through direct contact and ingestion are also possible through other means. Ingestion is also possible if building materials or soil is ingested directly through hand-mouth transfer.

Caulk or varnish that is peeling, brittle, cracking, or deteriorating visibly in some way may have the highest potential for creating dust and subsequent human exposure. Once PCBs are released to the environment, they have the potential to negatively impact sensitive receptors including commercial workers, construction workers, and fauna.

Once a contaminant has entered the groundwater, the rate of contaminant movement is influenced by many factors. These factors include physical and chemical properties of the contaminant and the aquifer. In general, once a contaminant reaches the groundwater, the contaminant will move as the groundwater moves through the process of advection (travel in the direction of groundwater flow) and dispersion (spreading vertically and horizontally).

Volatile Organic Compounds (VOCs), Volatile Petroleum Hydrocarbons (VPH), and Air-Phase Petroleum Hydrocarbons (APH)

Visual evidence of petroleum impacts to soil and groundwater have been documented at the Site. The fate and transport of petroleum hydrocarbons within soil and groundwater is controlled by a number conditions including: the quantity and duration of the release, soil type, depth to water table, redox potential, pH, oxygen concentration, the potential for biodegradation, temperature and rainfall. Once petroleum or VOC contamination has occurred, the substance will partition into three phases; the dissolved phase, the liquid phase, and the gaseous phase. A fraction of the mixture will dissolve into the soil moisture and groundwater, a liquid fraction will remain in the soil voids in its pure form (otherwise known as non-aqueous phase liquids or NAPLs), and a gaseous fraction will occupy the air spaces within the soil pores.

Following a spill, the liquid compounds will migrate downwards under the influence of gravity (with some lateral spreading). Lateral spreading can be caused by less permeable substances such as clay or a dense till. Once released, low molecular weight volatile petroleum compounds with the highest vapor pressure held within the air voids will escape rapidly. Migration into groundwater can occur by percolating surface water or groundwater through waste materials or contaminated soils, which enters the groundwater in a dissolved-phase. If the contaminant has a specific gravity less than 1.0 (the specific gravity of water), associated liquid-phase product will float on the groundwater surface. Conversely, if the specific gravity of the contaminant is greater than 1.0 (such as with chlorinated solvents), associated liquid-phase product will sink to the bottom of the groundwater column. Liquid-phase product is a continued source of dissolved-phase contamination. Once dissolved-phase contamination enters the groundwater, it will move with the groundwater in the direction of flow. As petroleum compounds are NAPLs, a pool of NAPLs will form on the surface of the water table. The soluble components in contact with the water table will slowly dissolve and form a contamination plume moving downstream of the contaminated area. The soluble fractions of NAPLs will form the leading edge of the contamination plume. The residual pure product is held within the soil by capillary forces or physical barriers and unless removed remains within the soil, acting as a long-term source of pollution. Volatile components of petroleum may pose a vapor intrusion risk to indoor air and related occupants.

Some VOCs, such as toluene and xylene, have a greater persistence than other VOCs, and are, therefore, expected to remain in the soil profile for a longer duration. Processes that naturally reduce

VOC concentrations include volatilization, biodegradation, and dilution. Collectively, these processes are known as natural attenuation and given favorable conditions, can reduce the concentrations of VOCs over time.

VOCs and APH also pose a risk to inhalation within buildings from a process called vapor intrusion (VI). VI requires five components to be considered a health threat. These are: 1) a source, 2) a pathway between the source, 3) a building susceptible to vapor intrusion, 4) vapors in the building; and 5) building occupants when the vapor-forming chemical(s) is (are) present indoors.

2.3 Applicable or Relevant and Appropriate Regulatory Requirements

The primary applicable or relevant and appropriate regulatory requirements related to the Site include:

- MEDEP RAGs, Commercial Worker and Construction Worker exposure scenarios;
- MEDEP Solid Waste Management Rules which includes 06-096 Department of Environmental Protection Maine Solid Waste Management Rules, February, 2011, detailing ACM requirements
- The National Emission Standard for Hazardous Air Pollutants (NESHAP), as applicable;
- MEDEP Universal Wastes: Universal waste is regulated under 06-096 CMR Chapter 858;
- Occupational Safety and Health Act (OSHA) (Part 1910 of Title 29 of the Code of Federal Regulations [29 CFR 1910]); and
- Toxic Substances Control Act (TSCA) for PCBs at high occupancy clean up criteria of greater than 1 milligram per kilogram (mg/kg).

According to reports, the Site is to be re-developed into commercial and or industrial space. There is no planned residential or groundwater use proposed. As a result, potential sensitive receptors at the Site include humans or other organisms that may come into direct contact with site soils through dermal contact, inhalation, or ingestion. Risk based exposure scenarios and corresponding guidelines for contaminant concentrations are presented in the MEDEP Remedial Action Guidelines for Contaminated Sites (RAGs), dated May 1, 2021. These guidelines (or the most recent iteration) are intended to assess the potential threat specific constituents may pose to sensitive receptors. Exposure scenarios are considered for a range of potential land uses including residential, recreational, commercial, and construction activities. **On site soils should initially be evaluated** relative to **Commercial Worker** and or **Construction Worker** exposure scenarios, depending on proposed activities. Relevant corresponding guidelines are presented in Table 5 of the MEDEP RAGs. A description of **Commercial Worker** and **Construction Worker** exposure scenarios include;

Commercial Worker Exposure Scenario

"The Soils cleaned to the RAGs for the Outdoor Commercial Worker Exposure Scenario are protective of all indoor and outdoor commercial uses of sites, including full-time industrial and maintenance workers whose jobs require that they be outdoors for a portion of the workday such as groundskeepers, loading dock workers, parking lot attendants, and mechanics. This scenario can also be used to conservatively evaluate indoor workers who may be routinely exposed to soil briefly during work breaks and outdoor lunches. These RAGs assume exposures to soil by incidental ingestion, dermal contact, and inhalation of contaminants in fugitive dust and ambient air occur over 25 years for the workdays of the year when the

ground is not frozen or snow covered. Using Maine specific climate data adjusted for the work week, the RAGs assume a soil exposure frequency of 183 days per year. Contact with soil is assumed to be of lower intensity than assumed for an excavation or construction work scenario since these workers are unlikely to be displacing soil (i.e., digging)”.

Excavation or Construction Worker Exposure Scenario

“Note that the RAGs are superseded by any applicable OSHA standards. Exceedance of RAGs should trigger an evaluation of whether OSHA standards apply. If OSHA standards are not applicable, the RAGs should be used to assess the threat posed by the contaminant. The Excavation or Construction Worker Scenario is protective of exposures to soil during high intensity soil disturbance activities such as digging, grading, and back-filling for a construction project lasting up to one year. This scenario can be used to conservatively evaluate a utility worker or landscaper whose exposure may be as intense as an excavation or construction worker, but is expected to be of a lesser duration than a year. Exposures to soil by incidental ingestion, dermal contact and inhalation of contaminants on fugitive dust and in ambient air are assumed to occur at a greater intensity than that assumed for the Outdoor Commercial Worker due to the degree of soil disturbance and displacement anticipated. Due to the exposure intensity and use of sub chronic toxicity factors, for some compounds the Construction Worker soil guideline will be lower than a residential or leaching to groundwater guidelines.”

3.0 ENVIRONMENTAL MEDIA MANAGEMENT PLAN IMPLEMENTATION

This section provides protocols and procedures for management of known and potentially impacted soil during any infrastructure improvements/redevelopment activities conducted at the Site. These protocols and procedures have been developed for implementation by workers who could be exposed to known and potentially contaminated soil and groundwater. This section describes protocols and procedures for worker safety, site preparation, identification of potentially contaminated soil during excavation activities, confirmation sampling and analysis, and proper handling and management of known and potentially contaminated soil. Management of known and potentially contaminated soil at the Site will be performed under the direction of an owner and or Site Representative. **It is highly recommended that the owner or Site Representative responsible for any Site improvements or redevelopment contract with an environmental professional prior to undertaking this work.** This will better ensure human health and the environment are protected from adverse conditions created by CoPC and to better comply with MEDEP rules and regulations.

As necessary, composite sample(s) shall be collected for waste characterization based on the anticipated quantity of CoPC impacted material to be remediated and disposed off-site. Analytical parameters and analyses shall be selected based on the designated licensed facility’s criteria. The depth and extent of the remediation by excavation shall be determined based on characterization data and any other features such as porosity of the media and elevated CoPC concentrations that may infiltrate to greater depths.

In any area where PCBs are known or presumed to be located proper notification to both USEPA and MEDEP will be required prior to activation of activities. Any activity that could create an exposure to PCBs whether assessment, cleanup, maintenance, or Post-removal PCB confirmation sampling will be conducted in accordance with Code of Federal Regulations (CFR), Title 40, Chapter 1, Subchapter R, Part 761

Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions. **No soil should be moved off-site without appropriate characterization and or consultation with the MEDEP.**

According to annual groundwater monitoring reports prepared for the Site, PCBs have not been detected in groundwater at concentrations above laboratory reporting limits since the late 1990s. Evaluation on whether to sample groundwater should be considered and agreed upon with USEPA and MEDEP for proposed activities that have the potential to disturb soil, groundwater, or building materials at the Site, including but not limited to construction activities, remodeling, utility work, and emergency repairs.

3.1 Potential Infrastructure Improvements

Potential future infrastructure improvements and or redevelopment at the Site may include installation or repair of subsurface utilities, construction of building foundations, remodeling of structures, and or other subsurface improvements that may result in the exposure for receptors to known and potentially contaminated media. Prior to any redevelopment activities, the owner should consult this EMMP to determine if and at what depth any CoPC were identified or thought to be present during previous assessments. **Summaries of the assessments and fate and transport of these CoPC are presented in Sections 1.3 and 2.2 of this EMMP respectively.**

3.2 Worker Safety

Each contractor will be responsible for ensuring the safety of its employees, including compliance with applicable Maine OSHA regulations and project plans and specifications. The contractor will prepare and implement a Site-specific Health and Safety Plan in accordance with OSHA requirements to ensure adequate protection for workers on the Site. **Contractors performing excavation of known or potentially contaminated soil will have successfully completed the 40-hour Hazardous Waste Operations and Emergency Response training in accordance with 29 CFR 1910.120.**

3.3 Site Preparation

Prior to any soil disturbance activities, preparation activities will be conducted, including installation of Site security measures as necessary to ensure traffic control and protection of workers. Prior to earthwork activities that are subject to erosion and sediment control requirements, erosion and sediment control procedures and protocols will be conducted in accordance with applicable best management practices and federal, state, and local requirements.

3.4 Soil Screening

Known and potentially contaminated soil will be field screened prior to or during excavation for a petroleum odor, an unusual appearance, and/or liquid-phase product. Work will be suspended and the property owner and or Site Representative will be contacted immediately if a petroleum odor, an unusual appearance, and or liquid-phase product is detected. The owner and or Site Representative will also be contacted immediately if transformers, drums, other containers, or USTs are encountered during earthwork activities. The property owner and or Site Representative will perform follow-up field screening

of soil for the presence of VOCs using a photoionization detector. The results of the field screening will be evaluated to determine whether characterization sampling is necessary to determine the appropriate soil management protocols for potentially contaminated soil. If contamination is encountered, the owner or Site Representative will report to MEDEP as necessary. The approach to deciding whether to perform characterization sampling for potentially contaminated soil will be conservative (for instance, if uncertainty exists whether soil may be contaminated, characterization screening and or sampling will be conducted).

3.5 Characterization Sampling

The MEDEP should be contacted prior to any soil disturbance or redevelopment activities at the Site. All future soil disturbance activities have the potential to encounter uncharacterized soil impacted by CoPC. MEDEP personnel should be a part of all decisions related to materials impacted or thought to be impacted by CoPC. Soils suspected to be impacted with CoPCs that are to be characterized, should be placed on an impermeable surface or at least 6-mil polyethylene sheeting and covered. A berm or other appropriate barrier should be placed around the perimeter of the stockpile to prevent soil migration or precipitation runoff from the soil.

In the event that no material will be leaving the site, actively monitor soils for evidence of potential environmental hazards through visual and olfactory means by on-site personnel. If suspicious material or evidence of a potential release is encountered, the MEDEP should be contacted immediately. For petroleum related contaminants, soil may then be evaluated using a PID and bag headspace testing or an oleophilic dye shake test. Field screening results should be interpreted using guidelines presented in the MEDEPs *Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil*, dated, October 25, 2012. These guidelines include action levels for both screening techniques, presented below.

PID Guidelines

SOP No.TS004
Date: October 15, 2012
Revision: 2.1

Table 1: Approved PID Field Cleanup and Notification Guidelines

Cleanup Scenario	Soil size [grams]	Ion	Thermo	Passport	Foxboro	MiniRAE	Photon
Leaching to GW/ Notification	200	80	60	60	50	40	40
Resident/ Park User	20	700	275	500	250	350	300
Outdoor Commercial Worker/ Excavation-Construction Worker	5	1200	500	850	375	1500	400

Note: No adjustment is made for set points; the response factor should be 1.0 for all instruments.

Instrument Descriptions

Ion: Ion Science PhoCheck Series
Thermo: Thermo Environmental OVM 580 Series
Passport: MSA Passport PID II OVM
Foxboro PID: Foxboro TVA-1000 PID mode
MiniRAE: RAE Systems MiniRAE 2000 and MiniRAE 3000
Photon: MSA Photon Gas Detector

Oleophilic Dye Test Guidelines

Results are reported as saturated, positive, slightly positive and undetected as described below:

- Saturated when obvious red (or blue) dye is observed in the soil matrix, or in/on the water (may stain the side of the jar);
- Positive when only the EPS bead is dyed dark pink/ red or blue and there is no coloration in the soil or water;
- Slightly Positive when only the EPS bead is dyed light pink or blue and there is no coloration in the soil or water; or
- Undetected when there is no coloration in the soil or water and the EPS bead remains white.

Results are interpreted as described below:

- Undetected result indicates no cleanup is required unless laboratory results indicate an exceedance of a leaching to groundwater exposure criteria.
- Positive/ Slightly Positive result indicates cleanup is needed for leaching to groundwater, excavations less than 200 cubic yards, and resident/park user scenarios.
- Saturated results indicate cleanup is needed for leaching to groundwater, resident/park user and outdoor commercial/ excavation-construction worker scenarios.

If soil is not impacted with CoPC then it may be reused on-Site. If it is determined to be impacted with CoPC, it may remain on-Site, but should be buried at least 2 feet below the ground surface or capped under asphalt pavement or an appropriate and approved by MEDEP cap. If the soil is deemed saturated with CoPC or poses a significant threat to human health or the environment, and it cannot be mitigated through capping, then it should be immediately addressed using other remedial alternatives. One potential alternative is to properly characterize and dispose of the impacted soil off-Site at a licensed disposal facility.

If proposed Site activities are anticipated to result in **the removal, disposal, or off-site relocation of any Site soils**, additional assessment or characterization should be conducted as appropriate, regardless of observed soil conditions or field screening results. Characterization and sampling parameters may vary depending on the proposed and or final destination of the excavated material.

Licensed Disposal Facility – **This is the preferred destination for any soil leaving the Site.** Prior to transporting material off site for disposal, the owner, Site Representative, or an assigned contractor should contact licensed disposal facilities regarding acceptance criteria and any associated waste characterization sampling. Disposal rates and acceptance criteria are likely to vary.

Samples will be analyzed for the appropriate CoPC identified according to MEDEP guidelines and or the requirements of the licensed disposal facility.

The owner and or Site Representative will obtain analytical results from the laboratory in both electronic and hard-copy formats. Laboratory analytical data will undergo a quality assurance/quality control review

at the time of receipt. Hard copies of the analytical data should be maintained in the owner or Site Representative's project files.

3.6 Soil Handling and Disposal

Contaminated soil that is required to be transported off the Site to an approved licensed disposal facility based on the additional characterization, will be handled in accordance with the protocols described below.

- ▲ The owner, Site Representative, and or designated personnel must be on the Site during all stockpiling, loading, and hauling operations.
- ▲ Erosion and sediment control will be performed in accordance with best management practices.
- ▲ Dust control measures will be performed as appropriate.
- ▲ Contaminated soil that cannot be immediately transported off the Site will be stockpiled on impermeable plastic sheeting (a minimum of 6-mil thick) with a berm around the perimeter of the stockpile. The plastic sheeting and berm prevent the runoff of contaminated stockpiled soil to surrounding areas. The berm may be constructed with hay bales or other equivalent methods approved by owner and or Site Representative. If the soil is not placed on an impermeable layer, the bottom plastic sheeting will be lapped over the berm materials, and the soil stockpile within the berm will also be covered with plastic sheeting to prevent erosion or leaching of contaminants from the soil stockpile impacting the underlying soil. The upper plastic sheeting covering the soil stockpile will be secured using sand bags or an equivalent to prevent the stockpiled soil from being exposed to precipitation and wind.
- ▲ For both on- and off-Site soil transportation activities, the contractor will exercise care during loading of contaminated soil into trucks to minimize spillage of the soil onto the ground surface.
- ▲ Contaminated soil loaded into trucks and transported off the Site will be covered if weather conditions (e.g., dry, warm, or windy conditions) could cause soil to blow out during transport to the disposal facility.
- ▲ Trucks leaving the Site will be free of loose soil on the exterior of the trucks and may require covers.
- ▲ Trucks will not be allowed to leave the Site if liquids are draining from the load. The contractor will use care not to track soil onto city roads and must routinely wash down the roads if soil is being tracked onto them.
- ▲ Transport tracking tickets will be required, which document the haul to the approved disposal facility for each truck leaving the Site.

3.7 Groundwater Extraction

Groundwater extraction and excavation of soil to depths that intercept the groundwater table should be avoided if possible. If unavoidable, measures should be taken to characterize the water prior to pumping and or dewatering any trenches. If characterization indicates CoPC are present, the owner or Site Representative following consultation with MEDEP may be able to infiltrate the water back into the Site with or without treatment, pump the water to the East Millinocket Waste Water Treatment Plant with proper approval from the facility and MEDEP, or containerize the water in temporary tanks for off-Site disposal to a licensed facility.

3.8 Building Materials and Universal Wastes

If any significant building maintenance, redevelopment, or demolition of existing buildings is to take place, then a proper ACM inspection should be completed by licensed personnel. ACM needs to be managed according to MEDEP rules and regulations.

To protect future workers from LBP, the owner or Site Representative may remove or cover the paint to prevent direct contact. Any corrective LBP abatement options should be conducted in compliance with OSHA standards.

All universal waste should be removed and disposed of at a licensed facility following MEDEP rules and regulations.

3.9 Capping Options

The owner or Site Representative will discuss soil capping options with MEDEP prior to the on-Site disposal of any impacted soil. Any impacted soils remaining in-situ at the site must be properly covered by at least 2 feet of clean fill material and/or a MEDEP approved soil cover system (e.g., concrete/asphalt/paver hardscape system and/or landscaped softscape systems, etc.). The basic option, as discussed earlier in this EMMP, is to bury CoPC impacted soil at a minimum of two-feet below grade and cover it with clean fill. The owner or Site Representative also has the option, pending consultation with and approval from MEDEP, to install 12 inches of clean material on top of the CoPC impacted soil. The 12-inches of material typically consists of 4 to 8 inches of compacted clean fill below 4 inches of loam or topsoil. A marker layer such as a plastic snow fence is typically installed on top of the impacted soil layer. Another option is to install the marker layer on top of the impacted soil and construct 4 inches of fill with a 2 to 4-inch layer of pavement or concrete on top of the fill. The last option is to place a building foundation, asphalt parking lot, or other MEDEP approved hardscape cover system on top of the impacted material. MEDEP VRAP also requires that a sub-slab vapor mitigation system be installed under any new buildings constructed at the mill site. Annual inspections of all caps would be required and any corrections or repairs to the cap would be required upon discovery.

4.0 DOCUMENTATION REQUIREMENTS

This section describes the requirements for documentation of infrastructure improvements on the Site that may encounter known and or potentially contaminated soil and groundwater. These documentation requirements include providing notifications to MEDEP prior to commencing infrastructure improvements, documenting construction activities, health and safety planning, and preparing a post-construction summary report.

4.1 Notification to the Maine Department of Environmental Protection

The owner and or Site Representative will provide written notification to MEDEP of infrastructure improvements and or redevelopment that require soil disturbances (see contact data below). The notifications will include a general description of the proposed activities and how material will be

managed. This EMMP is intended to address specific environmental conditions at the Site and assumes all soil disturbance activities are being conducted according to good commercial and customary practices in conformance with relevant state and federal regulations. USEPA notification is required when working in areas containing PCBs. **If at any point contractors or on-site personnel encounter evidence of a release or have concerns regarding potential hazards to human health or the environment**, they may also contact MEDEP at;

Mr. Ted Wolfertz
Division of Remediation and Waste Management
Maine Department of Environmental Protection
State House Station 17
Augusta, Maine 04333-017
207-629-8130 email: ted.wolfertz@maine.gov

4.2 Health & Safety

A Health and Safety Plan will be prepared for all infrastructure improvement projects or soil disturbance activities on the Site that may encounter known and/or potentially contaminated soil and groundwater.

4.3 Contractor Reporting Requirements

The contractor performing infrastructure improvements/redevelopment will prepare detailed records of soil excavation, stockpiling, re-use, or disposal. This includes the origin, destination, and volume of soil that is loaded and hauled to an approved off-Site disposal or treatment facility, and or re-used as fill on the Site. Soil excavation, handling, and disposal activities will be documented in the daily field reports. Depending on project scope, the daily field reports and results of soil sampling and analysis may be summarized in a final report prepared by the contractor and submitted by the owner and or Site Representative to MEDEP.

4.4 Field Documentation

All work covered under the EMMP must be documented, including daily and/or weekly field reports and a final summary report that documents and summarizes all field activities, on-site and off-site soil/groundwater management, and includes disposal documentation, as applicable. Field notes will be as descriptive and inclusive as possible, allowing independent parties to reconstruct the sampling activities from the recorded information. At a minimum, field documentation will include the date, location of the work, weather conditions, sample collection data, field equipment used, and any activities performed in a manner other than specified in the EMMP. In addition, other forms completed or used (e.g., Chain of Custody form, maps) will be referred to and included. Field personnel will sign the reports and these should be kept on file by the owner and or Site Representative.

4.5 Summary Reporting

Upon completion of future infrastructure improvement activities on the Site, a Summary Report may be prepared and submitted to MEDEP. This report is strongly suggested, but is not mandatory. A Summary Report would present the results of the activities completed at the Site, including the following:

- ▲ Summary of infrastructure improvement/redevelopment activities completed at the Site;
- ▲ Preparation of plan map and summary tables for confirmation sampling, as necessary; and
- ▲ Conclusions regarding the final construction or redevelopment activities.

4.6 EMMP Updates

Per the VRAP No Action Assurance Letter dated February 14, 2023, The EMMP must be updated at the conclusion of each redevelopment project to reflect “as-built” information related to identification of any new contamination and/or the installation of any cover systems. The updated EMMP will be submitted to the MEDEP for review and approval.

5.0 ANTICIPATED QUESTIONS

The following are examples of anticipated questions and answers and are provided as guidance to the grounds and maintenance staff and other potential users of the Site.

Why are there restrictions on soil disturbance?

Historical operations at the Site included the use and or storage and release of many CoPC. Previous assessment activities confirmed the presence of CoPC in soil and groundwater. It remains possible that future soil disturbance activities encounter contaminants at concentrations that pose a risk to human health or the environment. The intent is also to limit potential exposure, including the possibility that potentially impacted material is moved off-site, where it may pose a greater risk to sensitive receptors including unsuspecting individuals.

Future land use or redevelopment should be limited to commercial or industrial uses. Owners and or Site Representatives at the Site should consult MEDEP or a Qualified Environmental Professional prior to advancing any reuse for residential purposes, schools, childcare facilities, or long-term health care facilities.

Why is there a restriction on groundwater extraction?

Groundwater at the Site has the potential to contain CoPC and as a result, the extraction of groundwater is not advised without additional analytical testing.

Will all subcontractors need to comply with this EMMP?

Yes, contractors that will be disturbing the surface, subsurface, or conducting significant or pertinent building modifications should be made aware of the potential environmental hazards at the Site as well as

the limitation and or concerns on transporting soil off-site. It is the current property owner's responsibility to make contractors aware of this EMMP.

What does this mean for future development?

Any future development should involve consultation with a Qualified Environmental Professional and or MEDEP. Based on current available data, the majority of the on-Site soils do not pose a significant risk to inhabitants of the property or individuals participating in construction and or excavation activities at the Site. However, the potential for encountering unknown or unquantified contaminants remains elevated at the Site. The property should not be used for residential purposes, schools, childcare facilities, or long-term health care facilities without further consideration and or assessment activates.

If I have any questions, who do I call?

1. Michael Michaud, Town of East Millinocket (207) 746-355, or
2. Ted Wolfertz, Maine Department of Environmental Protection (207-629-8130), or
3. Rich Campbell, Campbell Environmental Group, (207-253-1990).



Contamination and Toxic Substances Review Supplement

Evaluation of Existing Site Contamination

Site contamination was mainly evaluated through the review of numerous environmental reports related to remediation efforts undertaken at the former Great Northern Paper mill site property at 50 Main Street in East Millinocket, ME. These reports document response and investigation activities conducted at the site from 1988 to present, both during active mill operations and after mill closure in 2014.

The most relevant reports, listed below, are cited as numbered references in the accompanying Contamination Summary Table (**Attachment B**), and can be furnished upon request.

1. Sevee & Mahar Engineers, Inc. (December 1989) Closure Report for the Drum Storage Facility at East Millinocket Mill, Great Northern Paper.
2. United States Environmental Protection Agency [USEPA] (September 27, 1991) Consent Agreement and Final Order, Great Northern Nekoosa Corporation, EPA Docket No. TSCA-I-87-1041.
3. Maine Department of Environmental Protection [MDEP] (2003) VRAP No Action Assurance letter.
4. Environmental Management, Inc (2015) Asbestos Renovation/Demolition Impact Survey Former Great Northern Paper Company, East Millinocket, ME.
5. United States Environmental Protection Agency [USEPA] (2020) Site Investigation Closure Memorandum, East Millinocket Mill Radiation Sources Site.
6. Ransom Consulting, LLC (February 13, 2020) Phase I ESA, Great Northern Paper – East Millinocket Mill.
7. Ransom Consulting, LLC (May 28, 2020) Needs Assessment & Preliminary Scope of Work, Phase II ESA, Priority Development Areas, Former GNP East Millinocket Mill.
8. KGSNE JV, LLC (February 16, 2022) Targeted Brownfields Assessment, Great Northern Paper Mill – Study Area 2 North.
9. Stillwater Environmental Engineering, Inc. (May 15, 2024) Site visit.
10. James Byrne, Brownfields Coordinator, USEPA Region I (March 2023) Email correspondence.
11. Weston Solutions, Inc. (August 2022) EPA Region 1 - Removal Program Preliminary Assessment/Site Investigation (PA/SI) Report, 05/25/2022 AND 06/27/2022-06/28/2022.
12. US EPA Region 1 (August 25, 2022) Action Memorandum - Request for a Removal Action at the East Millinocket Paper Mill Site -Chemical Storage Building Area, East Millinocket, Maine.



13. US EPA Region 1 (October 16, 2023) Action Memorandum Amendment - Request for a Ceiling Increase and 12-Month Exemption for the Removal Action at the East Millinocket Paper Mill Site -Chemical Storage Building Area, East Millinocket, Maine.
14. TRC (September 2014) Phase I ESA, Conceptual Site Model, and Data Gap Analysis, Great Northern Paper #2.
15. KGSNE JV, LLC (April 13, 2021) Targeted Brownfields Assessment Report, Great Northern Paper Mill – Study Area 5.
16. Cole Hastings, On-Scene Coordinator, USEPA Region 1 (August 2023) Email correspondence.
17. KGSNE JV, LLC (November 2023) Targeted Brownfields Assessment Report, Great Northern Paper Mill – Study Areas 3, 6 and 7.
18. TRC, East Millinocket Brownfields Project Management Consultants (May 21, 2024) personal communication.
19. Campbell Environmental Group (September 24, 2024), Environmental Media Management Plan, Great Northern Paper, East Millinocket, Maine #REMO2048, rev. 2.
20. TRC (September 26, 2024) Brownfields Program SSQAPP Addendum - Former GNP Mill Study Areas 1, 2, 4, and 6 Limited Hazardous Building Materials Survey, Subsurface investigation, and Waste Characterization Sampling.

Additional reports and statements that were reviewed are also listed in the Additional References section below.

The site has been delineated into seven specific Study Areas in previous and ongoing environmental site assessment reports and these Study Areas have been used as the basis for prioritizing targeted assessments under the EPA Brownfields program and Maine DEP VRAP. These Study Areas are shown on the Focused Site Layout figure (**Attachment A**) from the 2020 Phase I ESA report by Ransom Consulting, and consist of the following:

- Study Area 1: Western Mill Area
- Study Area 2: Eastern Mill Area
- Study Area 3: Maintenance Area
- Study Area 4: Fuel Storage Area
- Study Area 5: Recycling Area
- Study Area 6: Wood Lot Area
- Study Area 7: Western Property

Connecting to subsurface water/wastewater utilities would involve ground disturbance and therefore requires an analysis of potential adverse effects from site soil contamination. These activities would occur on the eastern side of the site within **Study Area 2** and **Study Area 3**.

The maintenance, repair, and/or replacement of interior mechanical systems may disturb building materials that contain asbestos. Therefore, an analysis of potential adverse effects related to asbestos-containing materials (ACM) is required. These activities are anticipated to occur within **Study Areas 2, 3, 4, and 5**.



Description of Findings, including RECs

Recognized Environmental Conditions (RECs) and contaminants identified in site Study Areas are described in the accompanying **Contamination Summary Table**.

From the information available, the following contaminants of concern have been identified by recent environmental assessments of the former mill site areas relevant to the proposed activities. The types, levels, potential sources, and remediation efforts (to date) of contaminants are described in more detail, by location, in the Contamination Summary table.

Petroleum/Fuel

Petroleum/fuel release and/or potential for release were identified in or around the former Drum Storage Area (Study Area 2), the former Paint Shop and former Hazardous Waste Storage areas (Study Area 3), the Fuel Storage area (Study Area 4), and Slasher Control Building (Study Area 6).

Metals

The presence of potentially toxic metals in soils were identified in areas associated with the former Drum Storage Area (Study Area 2), the former Hazardous Waste Storage area, former Maintenance Garage area, and outside of the Training Center (Study Area 3); Recycle Fiber Warehouse and former Floatation Cell building (Study Area 5); near the Bark Prep building (Study Area 6); and in the former Burn Area (Study Area 7).

PCBs

Release of PCBs and/or potential for PCB release was identified in areas associated with the Paper Warehouse (portion including the former Drum Storage Area), the 5/6 Finishing Room, the Train Shed railbed, and the former Hazardous Waste Storage Area (Study Area 2); the former Paint Shop (Study Area 3); the Chemical Storage Plant (Study Area 5); and the former Chemi-Groundwood building (Study Area 6).

Radioactives

Potential radioactive substances were identified associated with the former Hazardous Waste Storage Area (Study Area 2).

VOCs/SVOCs in Soils

Volatile and/or semi-volatile organic compounds were identified associated with the Paper Warehouse (portion including the former Drum Storage Area), the 5/6 Finishing Room, the Train Shed (railbed), and the former Hazardous Waste Storage Area (Study Area 2); the former Paint Shop and the Training Center (Study Area 3); the Recycle Fiber Plant, Floatation Cell building, and Chemical Storage Plant (Study Area 5); and the former Burn Area (Study Area 7).

Asbestos

Asbestos containing materials were found in the Core Room, Train Shed and the 5/6 Finishing Room (Study Area 2).

Remediation Documents and References

Remediation efforts at the East Millinocket former GNP mill site have been ongoing since the mill closure in 2014. Efforts have followed steps and guidance provided by the Maine Department of



Environmental Protection (MDEP) Remediation Program for industrial sites. Phase I Environmental Site Assessments have been completed, most recently in 2020, that identified RECs and contaminants associated with former mill operations. Following the Phase I, a Phase II Needs Assessment & Preliminary Scope of Work was completed, which outlined recommended remediation steps to address priority areas of the site. This led to remediation investigations by way of a series of Targeted Brownfields Assessments (TBAs), prioritized by site Study Areas, guided by the US Environmental Protection Agency (USEPA) Region I. The TBAs followed procedures of the 2021 Maine Remedial Action Guidelines to determine clean-up levels appropriate to this Brownfields site. The Town is participating in Maine's Voluntary Response Action Program (VRAP), a program intended to encourage the cleanup and redevelopment of contaminated properties within the state. In a close partnership between the federal and State agencies, the Town is working closely with the MDEP, which has delegated authority from the USEPA to oversee Brownfields investigation and remediation.

Remedial actions—both completed and planned—undertaken as part of the Brownfields VRAP to address RECs and identified contaminants within project buildings and locations are summarized in the accompanying **Contamination Summary Table**. This table includes numbered citations that correspond to relevant supporting documentation and references.

Mitigation Requirements and Documents

Environmental clean-up actions at the former mill site are ongoing and closely guided by both MDEP and USEPA Region 1. Participation in the MDEP's VRAP initiative holds the activities to high standards in terms of both compliance (investigation, remediation, and mitigation protocol) as well as process (public notice, oversight, etc.), which meet or exceed those of the relevant federal and state laws and authorities required to be met as part of this environmental assessment.

Engineering controls currently in place include capping of contaminated areas (as per the Drum Storage Facility Closure Plan and VRAP No Action Assurance related to the PCB spill areas). **Institutional controls** include those outlined in the *Agreement Regarding Environmental Matters between State Of Maine Department of Environmental Protection and Great Northern Paper Company, LLC* (2011), particularly the Agreement to an Environmental Covenant (Agreement 8.I), which:

- a. Prohibits the use of groundwater at the site for human consumption;
- b. Provides that future excavation adheres to an approved Soils Management Plan; and
- c. Restricts use of the property to industrial uses.

Additional institutional/engineering controls specific to each site Study Area have been and continue to be incrementally developed through TBAs, under the purview of the USEPA and Maine DEP remediation programs. These controls establish restrictions in addition to the comprehensive restrictions of the Covenant Agreement.

Proposed project activities include areas of ground disturbance necessary for connecting the Finishing Room and Training Center buildings to existing water and wastewater utilities. Any activities that may affect areas with identified soil contamination will follow appropriate



mitigation measures, engineering and/or institutional controls, outlined in the relevant EPA TBA report. These locations and applicable mitigation measures are summarized in the attached Contamination Summary Table. Project activities will not result in extraction of groundwater, therefore no mitigation measures are required related to locations of identified groundwater contamination.

As outlined in the Project Description, the location of proposed activities has historically been used for industrial purposes only, and will remain industrial for the foreseeable future, with no conversion of land or property use associated with current or future activities.

Project mitigation measures associated with RECs/contaminants identified in project buildings/locations are summarized in the **Contamination Summary Table**, along with numbered citations to relevant references.

Additional References

Remediation documents, reviewed but not included as part of the Environmental Review Record, are:

- Administrative Consent Agreement and Enforcement Order, Hazardous Waste Activities, Great Northern Paper Company, a division of Great Northern Nekoosa Corporation, (MEDEP, August 22, 1988)
- Closure Report for the Drum Storage Facility at East Millinocket Mill, Great Northern Paper (Sevee & Mahar Engineers, Inc., December 1989)
- Review Comments and Conditional Approval for the PCB Remediation Project, East Millinocket Mill (MEDEP, June 14, 1989)
- Report of PCB Cleanup Activities and Groundwater Monitoring, East Millinocket Mill (Stone and Webster Engineering Corporation, March 1991)
- Consent Agreement and Final Order, Great Northern Nekoosa Corporation, EPA Docket No. TSCA-I-87-1041 (United States Environmental Protection Agency [USEPA], September 27, 1991)
- Environmental Audit of the Georgia-Pacific Property, Millinocket, Maine (Sirrinc Environmental Consultants, December 1991)
- Phase I ESA, Great Northern Paper, Inc. Mill Properties (S.W. Cole Engineering, Inc., January 22, 2001)
- Geology Report for the Mini Site Inspection of the Great Northern Paper Mill #2 (MEDEP, September 27, 2001)
- Final Site Inspection Report for Great Northern Paper Mill #2 (MEDEP, July 18, 2002)
- Agreement Regarding Environmental Matters between State Of Maine Department of Environmental Protection and Great Northern Paper Company, LLC (2011), accessed from Penobscot County Registry of Deeds Book 12608, Page 112.
- Phase I ESA, Katahdin Paper Mill – East (S.W. Cole Engineering, Inc., August 26, 2011)
- Phase I ESA, Conceptual Site Model, and Data Gap Analysis, Great Northern Paper #2 (TRC, September 2014)



- Data Review of the No. 5 Paper Machine Site at the East Millinocket Operations of Great Northern Paper Company (Earthcon, August 2015)
- PCB Assessment and Remediation at the East Millinocket Site Memo (Tetra Tech, June 6, 2018)
- Phase I ESA, Great Northern Paper – East Millinocket Mill (Ransom Consulting, Inc., June 12, 2019)
- Preliminary Remediation Cost Estimate – Great Northern Paper Mill (Ransom Consulting Inc., September 17, 2019)
- Hazardous Substances Inventory & Disposal Estimating, Steam Plant and Boiler Buildings, Great Northern Paper Mill (Ransom Consulting, LLC, April 10, 2020)
- Annual Groundwater Monitoring Report, Former Great Northern Paper Company, East Millinocket Operations (Tetra Tech, December 2020)

Contamination Summary Table

Attachment B is a table summarizing the RECs, identified contaminants, completed and proposed remedial actions, and associated mitigation measures for the Study Areas where project activities are proposed. This **Contamination Summary Table**, along with the accompanying references, provides the basis for the determination that potential adverse environmental impacts can be effectively mitigated under the Proposed Action.

Definition of acronyms used in the table:

ABCA =Analysis of Brownfield Cleanup Alternatives

ACM=Asbestos Containing Materials

APH=Air-phase Petroleum Hydrocarbons

AST=Aboveground Storage Tank

CAFO=Consent Agreement and Final Order

Cr⁺⁶= Hexavalent chromium

EPH=Extractable Petroleum Hydrocarbons

MEG=Maximum Exposure Guideline

PCBs=Polychlorinated Biphenyls

PP13=List of 13 Priority Pollutant metals (silver, arsenic, beryllium, cadmium, chromium, copper, mercury, nickel, lead, antimony, selenium, thallium, and zinc)

RAG=Remedial Action Guideline

TBA=Targeted Brownfields Assessment

TPH=Total Petroleum Hydrocarbons

UST=Underground Storage Tank

VOCs=Volatile Organic Compounds



ATTACHMENT A – FOCUSED SITE LAYOUT

(Fig. 3 from Ransom Consulting, LLC (2020) *Phase I ESA Great Northern Paper-East
Millinocket Mill*)

Legend & Notes

- Site Boundary
- 1 Structure Identification Number
- Equipment Removed
- Demolished
- Area of Known PCB Releases
- Underground Storage Tank (UST)
- Observed Monitoring Well Location
- Study Area
- 1 Western Mill Area
- 2 Eastern Mill Area
- 3 Maintenance Area
- 4 Fuel Storage Area
- 5 Recycling Area
- 6 Wood Lot Area
- 7 Western Property

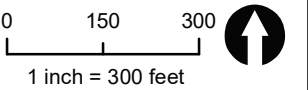
Notes

1. Site Plan based on ESRI and Digital Globe Orthophotography

2. Some features are approximate in location and scale

3. This plan has been prepared for Maine Department of Environmental Protection. All other uses are not authorized unless written permission is obtained from Ransom Consulting, Inc.

Scale & Orientation



Prepared For

Maine Department of
Environmental Protection
17 State House Station
Augusta, Maine

Site Address

GNP East Millinocket
East Millinocket, Maine

171.06116.014 Feb 2020

Figure 3
Focused Site Layout



Structure Identification

1 - Recycle Fiber Warehouse	17 - Slasher Maintenance Building	33 - Paper Warehouse	49 - Groundwood
2 - Recycle Fiber Plant	18 - Former Chemi-Groundwood Building	34 - Former Drum Storage Area	50 - Broke
3 - Chemical Storage Plant	19 - Truck Dumper	35 - Hopper Building	51 - Sulphite
4 - Flotation Cell Building Extension	20 - Truck Dump Hopper	36 - Bark Classifier Building	52 - Groundwood
5 - Switch House	21 - Bark Prep Building	37 - Sorter Building	53 - Garage
6 - Fuel Unloading Building	22 - Bark Storage Building	38 - Grinder Room	54 - Maintenance Garage (Sold and Removed)
7 - 750,000 Gallon Fuel Oil AST	23 - Plant Protection Building	39 - Old Boiler House	55 - Training Center
8 - Heater House	24 - Precipitator Building	40 - Old Water Treatment Building	56 - Warehouse W
9 - Hydrant House	25 - Bark Boiler Building	41 - No. 1-4 Paper Machine Building	57 - Train Shed
10 - Oil Pump House	26 - Steam Plant	42 - No. 5 & 6 Paper Machine Building	58 - Hydropulper Building
11 - Heater House	27 - No. 2 Train Shed	43 - Warehouse J/Old Paint Shop	59 - Weldon Building
12 - 1,700,000 Gallon Fuel Oil	28 - Mill Offices	44 - Bark Dump Building	60 - Former Transformer Bank
13 - Guard House	29 - No. 1-4 Finishing Building	45 - Transfer House	61 - Overflow #6 Oil and Water AST
14 - Slasher House	30 - Grinder Roll and Machine Shop Building	46 - Wood Room Building	62 - Guard Shack
15 - Slasher Deck	31 - No. 5 & 6 Finishing Room	47 - No. 7 Screen Room Building	
16 - Slasher Control Building	32 - No. 2 Train Shed	48 - Sulphite Plant	



ATTACHMENT B – CONTAMINATION SUMMARY TABLE

Building/Location	Study Area	Contaminant(s) of Concern	Description of Identified Contaminant/REC (bold # is study/document reference)	Remedial action(s) (bold # is study/document reference)	Project mitigation measures	Reference(s)
5/6 Finishing Room	2	Asbestos	ACM in 245 ft of pipe insulation and in 1600 sqft of tile mastic.	Identification and labeling	Abatement as necessary if ACM is disturbed	4
	2	Petroleum VOCs/SVOCs	Potential petroleum release associated with staining on the building exterior, and interior floor, due to past equipment leaks. 6,7	Soil, soil vapor, and groundwater monitoring conducted at transformer spill area: -Arsenic and chlorobenzenes exceeded Maine Tapwater RAG and Maine Drinking Water MEG; -Trichlorobenzene compounds (VOCs/SVOCs) above Maine Construction RAGs in groundwater. -Exceedences associated with a plume from the transformer fluid spill. Further characterization of extent of groundwater plume is recommended. 8	Institutional Controls (restrictions on property use, excavations, and groundwater use); Projects involve no groundwater extraction in this location; Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	6,7,8, 19
	2	PCBs	600 gallons transformer fluid released in 1978. 6	Transformer spill clean up in compliance with 1991 EPA CAFO. 2 ; Clean up completion (with conditions) documented in 2003 Maine DEP VRAP No Action Assurance letter. 3 PCB contamination controlled by existing floor slab. 8	Institutional Controls (restrictions on property use, excavations, and groundwater use); Engineering Controls (capped PCB spill area); Projects involve no groundwater extraction in this location; Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	2,3,6,8,19
Core Room	2	Asbestos	ACM in 125 ft of pipe insulation.	Identification and labeling	Abatement as necessary if ACM is disturbed	4
Paper Warehouse	2	Petroleum VOCs/SVOCs	Potential release associated with former drum storage area; Soil samples above MDL for TPH. 6,7	1989 Closure Plan (including soil removal and TPH and VOC monitoring) and 1989 Closure Report for former drum storage area. 1 Soil, soil vapor, and groundwater samples below Maine Commercial/Industrial RAGs. 8	Institutional Controls (restrictions on property use, excavations, and groundwater use); Engineering Controls (previously excavated and filled petroleum contamination area); Projects involve no ground disturbance or groundwater extraction in this location.	1,6,7,8
	2	Metals (PP13 and Cr+6) PCBs	Other potential contaminants associated with former drum storage area, based on historic operations. 6	1989 Closure Plan (including soil removal) and 1989 Closure Report for former drum storage area. 1 Soil, soil vapor, and groundwater samples below Maine Commercial/Industrial RAGs. Groundwater lead and arsenic exceeded Maine Tapwater RAG. 8 Lead sample exceeded Maine Drinking Water MEG. 8	Institutional Controls (restrictions on property use, excavations, and groundwater use); Engineering Controls (previously excavated and filled contamination area); Projects involve no ground disturbance or groundwater extraction in this location; Meets site-specific RAGs.	1,6,7,8
Train Shed/Rail Bed	2	Asbestos	ACM associated with 500 ft of insulation in the Train Shed.	Identification and labeling	Abatement as necessary if ACM is disturbed	4
	2	Petroleum VOCs/SVOCs Metals PCBs	Potential contaminants near the rail bed associated with historic mill railroad operations, including spills and/or materials transfers. 6	Soil, soil vapor, and groundwater sampled at sites along railroad sidings and in Train Shed. 8 -Arsenic and Benzo(a)pyrene (PAH compound) detected above Maine Construction RAGs in surface soil sample(s). PAH compounds may be attributed to ash/asphalt in fill at the identified locations. Arsenic may be attributed to preservative used in railroad ties, or previous applications of pesticide/herbicide along railbed to control weeds. Further characterization of arsenic and PAHs recommended to determine future remedial actions. 8 -Other analyzed parameters were below Maine Construction RAGs.	Institutional Controls (restrictions on property use, excavations, and groundwater use); Projects involve no groundwater extraction in this location; Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP (19), including at locations along the railbed where site-specific RAGs exceedences (arsenic and benzo(a)pyrene) were identified in surface soils.	6,7,8, 19

Building/Location	Study Area	Contaminant(s) of Concern	Description of Identified Contaminant/REC (bold # is study/document reference)	Remedial action(s) (bold # is study/document reference)	Project mitigation measures	Reference(s)
Former Hazardous Waste Storage Area	2	Radioactive substances	Potential for Cs-137 associated with industrial gauges (paper product measurement devices).	Presence of appropriate radiation shielding. 8 USEPA Radiation Site memo (2020) states that the site has appropriate local mechanism for release response (low threat). 5	No mitigation needed, as per Radiation Site Investigation Closure memo. 5	5,8
	2	VOCs/SVOCs Metals (PP13 and Cr+6) PCBs	Other potential contaminants associated with hazardous waste storage, based on historic operations. 6	Soil, soil vapor, and groundwater samples below Maine Commercial/Industrial RAGs. Groundwater arsenic exceeded Maine Tapwater RAG, but below Maine Drinking Water MEG. 8	Institutional Controls (restrictions on property use, excavations, and groundwater use); Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	8, 19
Maintenance Area	3	VOCs, Metals, EPHs, APHs	C11-C22 aromatics and naphthalene in soil below commercial/industrial RAGs; Arsenic and benzo(a)pyrene in soil at or above commercial/industrial RAGs; VOCs and APHs in soil vapor above commercial RAGs. 17	Aromatics and naphthalene levels are not likely a risk to health or environment; Excavation and off-site disposal of impacted soils may be necessary. 17	Institutional Controls (restrictions on property use, excavations, and groundwater use); Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	17, 19
Training Center/Warehouse W	3	VOCs, Metals, EPHs, APHs	Arsenic and benzo(a)pyrene above applicable RAGs in soil samples from south of building. VOCs/APH above applicable RAGs in soil vapor samples from around building. 17	Further investigation of indoor air and/or vapor mitigation may be needed if commercial use of the existing structures is planned. 17	Institutional Controls (restrictions on property use, excavations, and groundwater use); Project involves no groundwater extraction in this location; Areas of ground disturbance in this location, including south of the Training Center where site-specific RAGs exceedences (arsenic and benzo(a)pyrene) were identified in soils, would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	17, 19
Former Paint Shop/Warehouse J	3	Petroleum EPHs PAHs	Potential release associated with a 2,000 gal gasoline UST east of the shop building; VOCs found in soil samples. 6 Benzo(a)pyrene detected in soil sample, above Maine construction worker RAGs. 17 Naphthalene detected in soil samples. 17	TBA of Study Area 3 (Maintenance Area) completed in 2023; Removal of UST and associated piping, excavation of contaminated soil occurred in May 2023. 17	Institutional Controls (restrictions on property use, excavations, and groundwater use); Engineering Controls (previously excavated and filled UST area); Project involves no groundwater extraction in this location; Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	6, 17, 19
Former Maintenance Garage	3	Metals, PAHs	Arsenic, barium, cadmium, chromium, and lead detected in associated soil samples. 6 VOCs/APH above applicable RAGs in soil vapor samples. 17	TBA completed in 2023, determined metals are below applicable RAGs; Vapor mitigation may be necessary if commercial structures are built. 17	Institutional Controls (restrictions on property use, excavations, and groundwater use); Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	6, 10, 17, 19

Building/Location	Study Area	Contaminant(s) of Concern	Description of Identified Contaminant/REC (bold # is study/document reference)	Remedial action(s) (bold # is study/document reference)	Project mitigation measures	Reference(s)
Fuel Storage Area	4	Petroleum	Observed release and potential soil contamination associated with historic use of 750,000 gal AST that stores Bunker C (#6) fuel. 6, 9	Targeted Brownfields Assessment for Study Area 4 (Fuel Storage Area) – planned for Summer 2024. 18	Institutional Controls (restrictions on property use, excavations, and groundwater use); Areas of ground disturbance in this location would follow procedures for handling and management of contaminated soils that are outlined in the site-wide EMMP. 19	6, 9, 18, 19
Recycle Fiber Warehouse	5	EPHs, metals	None identified above applicable Maine RAGs. 15	None necessary. 15	No mitigation needed.	15
Recycle Fiber Plant (demolished)	5	VOCs	Presence of dichlorodifluoromethane (Freon-12) in soil gas. 15	May require management if occupied sructures are built over the area. 15	Project involves no construction/reconstruction of occupied structures in this area.	15
Floatation Cell Building Ext. (demolished)	5	VOCs, SVOCs, EPHs, metals	None identified above applicable Maine RAGs. 15	None necessary. 15	No mitigation needed.	15
Chemical Storage Plant	5	VOCs, PCBs, Acids, Caustics, Flammable Liquids, ACM	High quantity of abandoned containers, various substances. 11	Planned removal of containers and contents. 12, 13	Engineering controls (ongoing removal of materials, overseen by Maine DEP)	11, 12, 13
	5	VOCs	Presence of dichlorodifluoromethane (Freon-12) in soil gas. 15	May require management (e.g. vapor barrier) if occupied sructures are built over the area. 15	Project involves no construction/reconstruction of occupied structures in this area.	15
	5	Polymer Flocculant	Profloc spill from storage container August 2023, released to floor drain that discharged to the River. 16	Contained and cleaned up by State response team. 16	Engineering control (clean up).	16

ABCA =Analysis of Brownfield Cleanup Alternatives
ACM=Asbestos Containing Materials
APH=Air-phase Petroleum Hydrocarbons
AST=Aboveground Storage Tank
CAFO=Consent Agreement and Final Order
Cr⁺⁶= Hexavalent chromium
EMMP=Environmental Media Management Plan
EPH=Extractable Petroleum Hydrocarbons
MEG=Maximum Exposure Guideline
PCBs=Polychlorinated Biphenyls
PP13=List of 13 Priority Pollutant metals (silver, arsenic, beryllium, cadmium, chromium, copper, mercury, nickel, lead, antimony, selenium, thallium, and zinc)
RAG=Remedial Action Guideline
TBA=Targeted Brownfields Assessment
TPH=Total Petroleum Hydrocarbons
UST=Underground Storage Tank
VOCs=Volatile Organic Compounds



Tiffany Wilson <twilson@stillwaterenv.com>

Section 7 consultation

6 messages

Tiffany Wilson <twilson@stillwaterenv.com>
To: mainefieldoffice@fws.gov

Mon, Jul 8, 2024 at 3:54 PM

Good afternoon,

I am assisting the Town of East Millinocket with an environmental review for a project funded by Northern Border Regional Commission (NBRC), and we would like some assistance with the ESA and Bald Eagle affect determinations.

Attached is the IPaC species list for the project (from 4/30/24) and the accompanying species summary table. The project is to take place on a developed lot (former paper mill) and consists of infrastructure improvements, some of which will require ground disturbance. The site is on the West Branch of the Penobscot River.

We would like to have documentation from USFWS of "no effect" or "may effect" for each of the listed species, to include in the environmental review. Is there anything else we can provide that will help with this determination? How long does it take to complete the determination? We're trying to wrap up the review this week, but realize we should have probably initiated consultation much sooner.

Thank you, have a good afternoon,
Tiffany

--

Tiffany Wilson, Project Scientist

Stillwater Environmental Engineering, Inc.

PO Box 426

Orono, Maine 04473

Cell: (207) 299-7240

Email: twilson@stillwaterenv.com

Website: www.stillwaterenv.com

****please note -- I will be out of the office from July 16 - July 24***



2 attachments



Species List_EastMillinocketNEPA_4-30-24.pdf
697K



maine-field-office-species-summary-table_EastMill.docx
23K

Maine Field Office, FW5 <mainefieldoffice@fws.gov>
To: Tiffany Wilson <twilson@stillwaterenv.com>

Wed, Jul 10, 2024 at 2:48 PM

Dear Tiffany,

Thank you for reaching out to the Maine Field Office on behalf of the NBRC regarding the East Millinocket paper mill redevelopment project.

Ultimately, it is the responsibility of the NBRC to make effects determinations under section 7 of the ESA. But we can offer a few suggestions to help you get there.

First, please take a closer look at the Official Species List you got from IPaC. Both the endangered northern long-eared bat and proposed endangered tricolored bat aren't actually on the Official Species List, assuming that the redevelopment project is not a wind power project. So, neither of these species actually needs an effects determination.

Regarding the threatened Canada lynx, we recommend that you go back into the existing project in IPaC and access the Review section with the determination keys. We recommend that you evaluate the Northeast Endangered Species Determination Key, which will help you make an effects determination for lynx. Carefully read the letter you receive from IPaC after completing the determination key. The letter should explain if you've completed ESA section 7 consultation or need to contact the Maine Field Office for additional consultation regarding lynx. For example, if you get a "may affect" determination, you will be advised to contact our office.

Last regarding the endangered Atlantic salmon, your Official Species List notes that there is no designated critical habitat for salmon in this reach of the West Branch Penobscot River. There is no fish passage at the dams on the river and there are currently no recovery/restoration efforts ongoing for salmon in the West Branch; so it is very unlikely that Atlantic salmon occur in the river adjacent to the former paper mill site. It may be appropriate for you to make a "no effect" determination for Atlantic salmon but you should carefully consider any effects from the proposed action on downstream water quality. We would expect that implementation of standard sediment and erosion control practices associated with ground disturbance should avoid impacts to the river. For your information, there is currently no determination key in IPaC for Atlantic salmon.

In conclusion for ESA section 7 consultation, you don't need review or any type of concurrence from the Fish and Wildlife Service when you make a "no effect" determination. We recommend you document your reasoning for making a no effect determination for your own records (e.g., notes on the Species Summary Table). If you get a "may affect" determination for Canada lynx, please reach out to our office for additional consultation.

As for the bald eagle, please visit this webpage for additional information on the Bald and Golden Eagle Protection Act:

<https://www.fws.gov/media/northeast-bald-eagle-project-screening-form>

Since the project is more than 1000 feet from the nearest known bald eagle nest, we don't anticipate you'll need to do anything further regarding bald eagles.

Again, thank you for contacting the Maine Field Office. If you have any additional questions, please let us know.

The Maine Field Office Team

Maine Field Office
U.S. Fish and Wildlife Service
306 Hatchery Road
East Orland, ME 04431

From: Tiffany Wilson <twilson@stillwaterenv.com>
Sent: Monday, July 8, 2024 3:54 PM
To: Maine Field Office, FW5 <mainefieldoffice@fws.gov>
Subject: [EXTERNAL] Section 7 consultation

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

[Quoted text hidden]

Tiffany Wilson <twilson@stillwaterenv.com>
To: "Maine Field Office, FW5" <mainefieldoffice@fws.gov>

Thu, Jul 11, 2024 at 8:00 AM

Thank you for your helpful feedback and guidance on next steps for Section 7 determinations.
Have a great day,
Tiffany

[Quoted text hidden]

Maine Field Office, FW5 <mainefieldoffice@fws.gov>
To: Tiffany Wilson <twilson@stillwaterenv.com>

Mon, Jul 15, 2024 at 3:59 PM

Hello Tiffany,

I'm looking into this project and see a DKey was completed 7/12 and reached a NLAA for Canada lynx, and also that there was an earlier DKey from 4/30 which resulted in a may affect. It seems like the answer to Q. 34 is different in the more recent DKey regarding impervious fencing, and I was hoping you'd be able to share a little more information regarding potential fencing (or lack of fencing) for this project.

Thank you,

Juliana Berube

Fish and Wildlife Biologist
Ecological Services, Maine Field Office
U.S. Fish and Wildlife Service
(207) 812-5434
juliana_berube@fws.gov

From: Tiffany Wilson <twilson@stillwaterenv.com>
Sent: Thursday, July 11, 2024 8:00 AM

To: Maine Field Office, FW5 <mainefieldoffice@fws.gov>

Subject: Re: [EXTERNAL] Section 7 consultation

[Quoted text hidden]

Tiffany Wilson <twilson@stillwaterenv.com>

Mon, Jul 15, 2024 at 4:09 PM

To: "Maine Field Office, FW5" <mainefieldoffice@fws.gov>

Cc: Philip Ruck <pruck@stillwaterenv.com>, Jeff Spaulding <jspaulding@stillwaterenv.com>

Hi Juliana,

Fencing for this project would not be completely impervious to wildlife, but will restrict people's access to the site from roads. There is forested area to the west of the former mill site where the project will take place.

Hopefully this helps clarify. Thanks,
Tiffany

[Quoted text hidden]

Maine Field Office, FW5 <mainefieldoffice@fws.gov>

Fri, Jul 19, 2024 at 3:58 PM

To: Tiffany Wilson <twilson@stillwaterenv.com>

Cc: Philip Ruck <pruck@stillwaterenv.com>, Jeff Spaulding <jspaulding@stillwaterenv.com>

Thank you for the clarification Tiffany.

Juliana Berube

Fish and Wildlife Biologist
Ecological Services, Maine Field Office
U.S. Fish and Wildlife Service
(207) 812-5434
juliana_berube@fws.gov

From: Tiffany Wilson <twilson@stillwaterenv.com>

Sent: Monday, July 15, 2024 4:09 PM

To: Maine Field Office, FW5 <mainefieldoffice@fws.gov>

Cc: Philip Ruck <pruck@stillwaterenv.com>; Jeff Spaulding <jspaulding@stillwaterenv.com>

[Quoted text hidden]

[Quoted text hidden]



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588



In Reply Refer To:

04/30/2025 17:38:47 UTC

Project code: 2024-0058806

Project Name: East Millinocket Mill Site Redevelopment

Federal Nexus: yes

Federal Action Agency (if applicable): East Millinocket town

Subject: Technical assistance for 'East Millinocket Mill Site Redevelopment'

Dear Tiffany Wilson:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 30, 2025, for “East Millinocket Mill Site Redevelopment” (here forward, Project). This project has been assigned Project Code 2024-0058806 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical

habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Canada Lynx (<i>Lynx canadensis</i>)	Threatened	NLAA

Conclusion

Coordination with the Service is not complete. The project has a federal nexus (e.g., funds, permits); however, you are not the federal action agency. Therefore, the ESA consultation status is incomplete and no project activities on any portion of the parcel should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed. Section 7 consultation is not complete until the federal action agency submits a determination of effects, and the Service concurs with the federal action agency's determination. Please provide this technical assistance letter to the lead federal action agency or its designated non-federal representative with a request for its review.

As the federal agency deems appropriate, they should submit their determination of effects to the appropriate Ecological Services Field Office. The lead federal action agency or designated non-federal representative can log into IPaC system using their agency email account and click "Search by record locator" to find this Project using 182-161523411.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Atlantic Salmon *Salmo salar* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the Maine Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

East Millinocket Mill Site Redevelopment

2. Description

The following description was provided for the project 'East Millinocket Mill Site Redevelopment':

Infrastructure improvements part of Phase II

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@45.6241603,-68.57977604130771,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

Yes

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Is the lead federal action agency the Natural Resources Conservation Service?

No

10. Will the proposed project involve the use of herbicide where listed species are present?

No

11. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

12. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **birds** (e.g., plane-based surveys, land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **bats** (e.g., plane-based surveys, land-based or offshore wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

14. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

15. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

16. Will the proposed project activities (including upland project activities) occur within 0.125 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

No

17. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

18. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

19. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

20. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

21. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

22. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

23. Will the proposed project involve blasting where listed species may be present?

No

24. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

No

25. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

26. Will the proposed project impact streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

27. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

28. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

29. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

30. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

31. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

32. [Hidden Semantic] Does the project intersect the Canada lynx AOI?

Automatically answered

Yes

33. Will the project involve trapping, poisoning, or broadcasting disease control agents for wild animals (e.g. animal damage control, controlling or managing furbearer wildlife, capturing animals for research projects, rabies baits)?

No

34. Will the project be enclosed by fencing that could unintentionally trap lynx (e.g. wind and solar development, waste treatment settling ponds, impervious fencing along roads)?

No

35. Is this a road or highway project?

No

36. Is the project in a non-forested habitat (fields, towns and urban areas, agricultural fields) and of a nature that will not result in take of lynx?

Yes

37. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

41. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
5
3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Developed (industrial), partially within the shoreland zone of the West Branch of the Penobscot River.

IPAC USER CONTACT INFORMATION

Agency: Private Entity

Name: Tiffany Wilson

Address: 20 Godfrey Drive

City: Orono

State: ME

Zip: 04473

Email: twilson@stillwaterenv.com

Phone: 2072997240

LEAD AGENCY CONTACT INFORMATION

Lead Agency: East Millinocket town



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588



In Reply Refer To:

04/30/2025 16:58:44 UTC

Project Code: 2024-0058806

Project Name: East Millinocket Mill Site Redevelopment

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

(207) 469-7300

PROJECT SUMMARY

Project Code: 2024-0058806
Project Name: East Millinocket Mill Site Redevelopment
Project Type: Federal Grant / Loan Related
Project Description: Infrastructure improvements part of Phase II
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@45.6241603,-68.57977604130771,14z>



Counties: Penobscot County, Maine

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened

FISHES

NAME	STATUS
Atlantic Salmon <i>Salmo salar</i> Population: Gulf of Maine DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2097	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow

appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

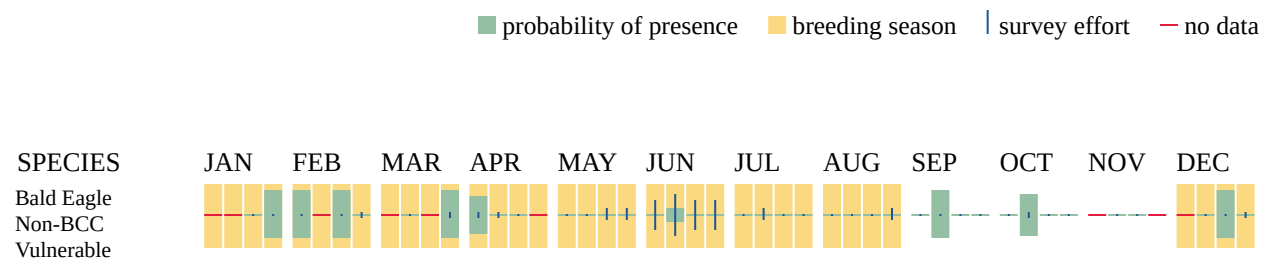
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rose-breasted Grosbeak <i>Pheucticus ludovicianus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11965	Breeds May 15 to Jul 31
Veery <i>Catharus fuscescens fuscescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11987	Breeds May 15 to Jul 15

NAME	BREEDING SEASON
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

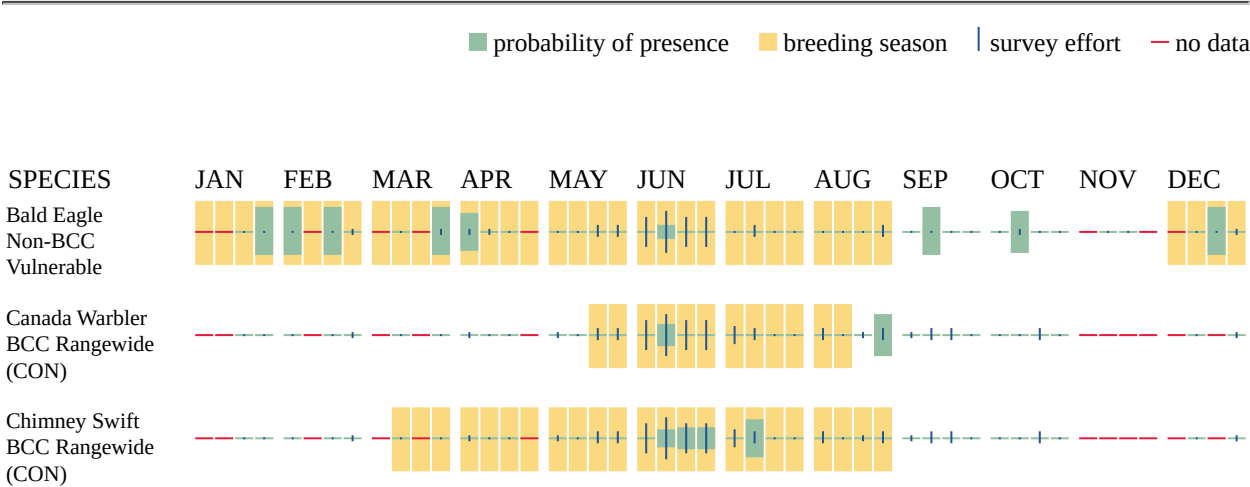
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

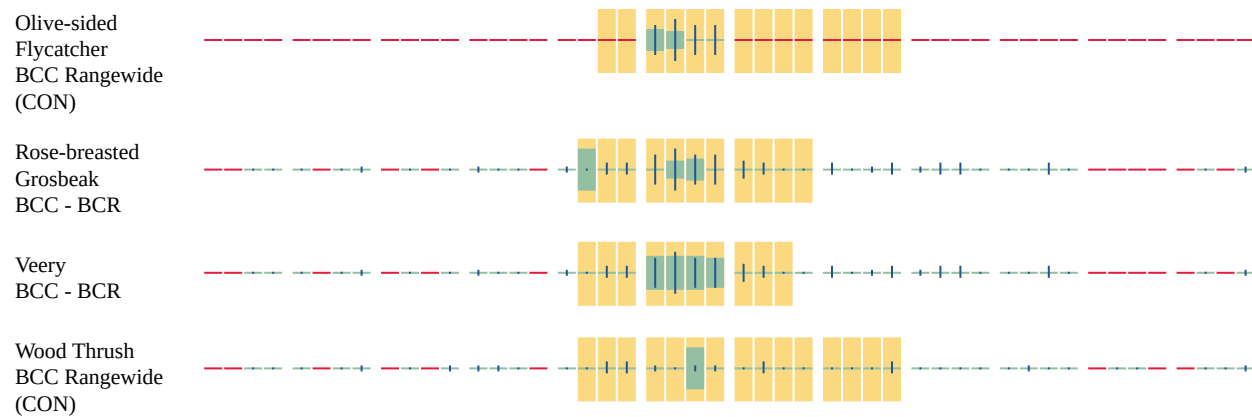
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBH

FRESHWATER POND

- PUBKx

FRESHWATER FORESTED/SHRUB WETLAND

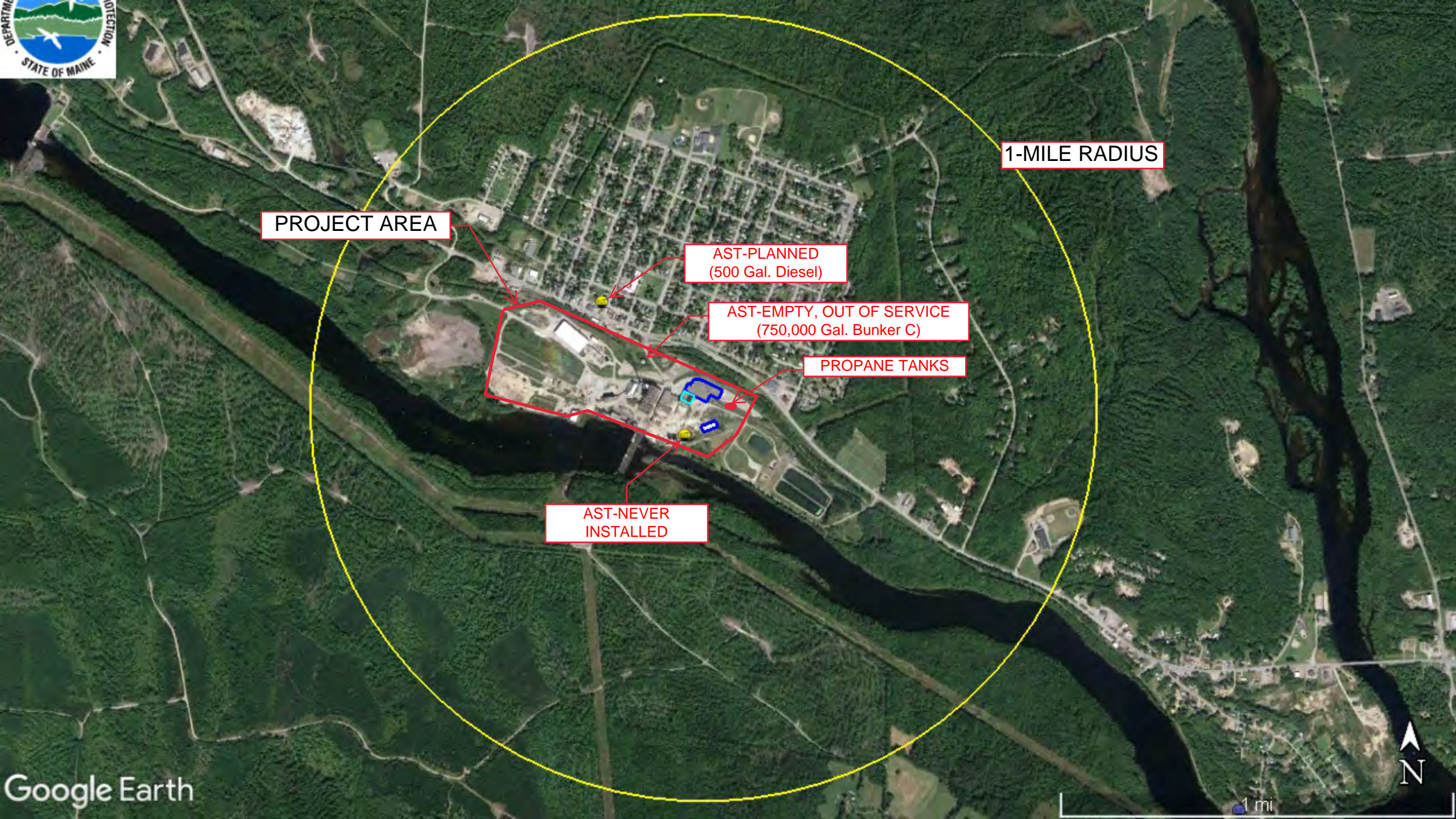
- PSS1E
- PSS1Ex

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Tiffany Wilson
Address: 20 Godfrey Drive
City: Orono
State: ME
Zip: 04473
Email: twilson@stillwaterenv.com
Phone: 2072997240

LEAD AGENCY CONTACT INFORMATION

Lead Agency: East Millinocket town



PROJECT AREA

1-MILE RADIUS

AST-PLANNED
(500 Gal. Diesel)

AST-EMPTY, OUT OF SERVICE
(750,000 Gal. Bunker C)

PROPANE TANKS

AST-NEVER
INSTALLED

Facility Registration Numt	Facility Name	Town/City	Full_address	
19793	CALVARY TEMPLE	EAST MILLINOCKET	2 ORCHARD ST EAST MILLINOCKET MAINE	UST-REMOVED
12869	DAVES AUTO REPAIR	EAST MILLINOCKET	79 MAIN ST EAST MILLINOCKET MAINE	(3) UST-REMOVED
13355	DEAD RIVER OIL CO	EAST MILLINOCKET	64 MAIN ST EAST MILLINOCKET MAINE	(3) UST-REMOVED
21344	DYSARTS - EAST MILLINOCKET	EAST MILLINOCKET	2 INDUSTRIAL DRIVE EAST MILLINOCKET MAINE	AST-REMOVED
21378	DYSARTS KARD GARD	EAST MILLINOCKET	2 INDUSTRIAL DR EAST MILLINOCKET MAINE	UST- NEVER INSTALLED
13057	E MILLINOCKET WAST TREAT FAC	EAST MILLINOCKET	53 MAIN ST EAST MILLINOCKET MAINE	UST-ABANDONED IN PLACE (GROUNDWATER MONITORING)
8388	E. MILLINOCKET CO	EAST MILLINOCKET	8 BIRCH ST EAST MILLINOCKET MAINE	(2) UST-REMOVED; AST-PLANNED (500 GAL DIESEL)
15857	EAST MILLINOCKET MUNICIPALITY	EAST MILLINOCKET	BEECH & BIRCH STS EAST MILLINOCKET MAINE	UST-REMOVED
438	EAST MILLINOCKET PUB WORKS	EAST MILLINOCKET	44 CHURCH ST EAST MILLINOCKET MAINE	USTs
12859	EAST MILLINOCKET TREAT PLANT	EAST MILLINOCKET	1 KATAHDIN AVE EAST MILLINOCKET MAINE	(2) UST-REMOVED
19163	EMERY LEE & SONS INC	EAST MILLINOCKET	157 MAIN ST EAST MILLINOCKET MAINE	UST
17119	FIRST CONG UNT CHURCH CHRIST	EAST MILLINOCKET	11 MAPLE ST EAST MILLINOCKET MAINE	UST-REMOVED
5124	KATAHDIN CHRISTIAN ACADEMY	EAST MILLINOCKET	6 BEECH ST EAST MILLINOCKET MAINE	UST-REMOVED; UST-ACTIVE
16697	KATAHDIN KI-50	EAST MILLINOCKET	50 MAIN ST EAST MILLINOCKET MAINE	UST-ACTIVE/NOT IN USE; AST-NEVER INSTALLED
12861	MUNICIPAL BUILDING	EAST MILLINOCKET	50 MAIN ST EAST MILLINOCKET MAINE	(2) UST-REMOVED
11114	OAK PARK MANOR	EAST MILLINOCKET	2 OAK ST EAST MILLINOCKET MAINE	(10) UST-ACTIVE
9949	PARK MANOR APARTMENTS	EAST MILLINOCKET	3 MAPLE ST EAST MILLINOCKET MAINE	UST-REMOVED
12862	POLICE & FIRE STATION	EAST MILLINOCKET	125 MAIN ST EAST MILLINOCKET MAINE	UST
8648	POWERS, WILLIAM	EAST MILLINOCKET	43 HIGH ST EAST MILLINOCKET MAINE	(2) UST-REMOVED
5123	SCHENCK HIGH SCHOOL	EAST MILLINOCKET	45 NORTH ST EAST MILLINOCKET MAINE	(2) UST-REMOVED; (1) UST-ACTIVE
1309	TOWN GARAGE	EAST MILLINOCKET	1 CHURCH ST EAST MILLINOCKET MAINE	(7) UST-REMOVED
12863	TOWN GARAGE	EAST MILLINOCKET	MAIN ST EAST MILLINOCKET MAINE	(2) UST
6188	US POST OFFICE	EAST MILLINOCKET	95 MAIN ST EAST MILLINOCKET MAINE	UST-REMOVED

Acceptable Separation Distance Assessment Tool

Is the container above ground?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Is the container under pressure?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Is the container diked?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
What is the volume (gal) of the container?	<input type="text" value="500"/>
What is the Diked Area Length (ft)?	<input type="text"/>
What is the Diked Area Width (ft)?	<input type="text"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPPU)	<input type="text" value="207.20"/>
ASD for Thermal Radiation for Buildings (ASDBPU)	<input type="text" value="36.50"/>
ASD for Thermal Radiation for People (ASDPNPD)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBNPD)	<input type="text"/>

For mitigation options, please click on the following link: [Mitigation Options](#)





ASD for environmental review

7 messages

Tiffany Wilson <twilson@stillwaterenv.com>
 To: "Turgeon, Joseph" <joseph.turgeon@maine.gov>
 Cc: Philip Ruck <pruck@stillwaterenv.com>

Mon, Feb 6, 2023 at 4:21 PM

Good afternoon Joey,

I'm writing to ask whether you would be able to help us get some information that will be part of a project environmental review that we are doing for Eastern Maine Community College for their higher education center up in East Millinocket.

They are receiving HUD funding to expand the childcare center that is part of the Katahdin Region Higher Education Center, and before they can begin any physical construction, an environmental review is required by HUD. Part of the review includes an assessment of Acceptable Separation Distance (ASD) for Explosives and Flammables at or near the project location. Specifically, they ask to provide:

"Evidence that within one mile of the project site there are no current or planned stationary aboveground storage containers except:

- Containers less than 100-gallons capacity containing common liquid industrial fuels
- Containers that are 1,000 gallons or less water volume capacity and in compliance with NFPA 58 (2017)

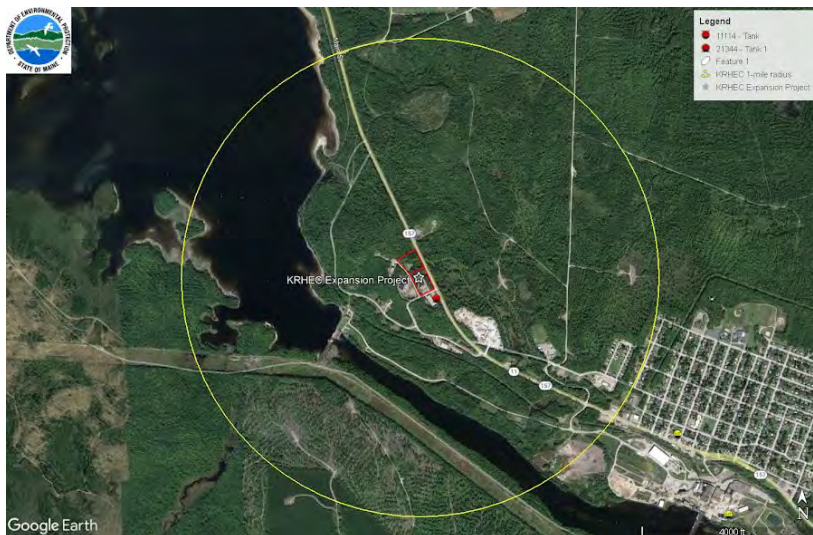
For all other containers within the search distance, a determination along with all supporting documentation that the separation distance of such containers from the project is acceptable" (they provide an online calculator for calculating ASD).

We have consulted the DEP registered tanks interactive map to locate registered ASTs within the 1-mile radius (attached map), but would like to confirm with your office if there are others not shown on the map. The analysis should also include propane (and any other explosives/flammables), and also planned aboveground tanks.

Is this something you could help us with or provide further guidance on?

We appreciate your time, and thank you in advance. Let us know if you need more information or references to the HUD process.

Tiffany



--

Tiffany Wilson, Project Scientist

Stillwater Environmental Engineering, Inc.

PO Box 426

Orono, Maine 04473

Cell: (207) 299-7240

Email: twilson@stillwaterenv.com

Website: www.stillwaterenv.com



Turgeon, Joseph <Joseph.Turgeon@maine.gov>

Mon, Feb 6, 2023 at 4:51 PM

To: Tiffany Wilson <twilson@stillwaterenv.com>

Cc: Philip Ruck <pruck@stillwaterenv.com>, "Day, Gregory J" <Gregory.J.Day@maine.gov>, "Hersey, Dale D" <Dale.D.Hersey@maine.gov>

Good Afternoon Tiffany,

I don't believe this is a project we can be much help on. I do not believe that we have a location map for ASTs. We would need specific information for individual addresses, owners, etc.

Also, propane is regulated by the Maine Fuel Board, not the FMO. That is information you would acquire through them.

Sorry I could not be more help with this one. Joey

Joseph Turgeon

Public Safety Inspector II

Above Ground Storage Tanks

Office of State Fire Marshal

45 Commerce Drive

Augusta, Maine 04333-0165

Office # 207-626-3880

Cell # 207-557-0110

Fax #207 287-6251

Joseph.Turgeon@maine.gov

<https://www.maine.gov/dps/fmo/home>

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From: Tiffany Wilson <twilson@stillwaterenv.com>

Sent: Monday, February 6, 2023 4:21 PM

To: Turgeon, Joseph <Joseph.Turgeon@maine.gov>

Cc: Philip Ruck <pruck@stillwaterenv.com>

Subject: ASD for environmental review

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Joey,

I'm writing to ask whether you would be able to help us get some information that will be part of a project environmental review that we are doing for Eastern Maine Community College for their higher education center up in East Millinocket.

They are receiving HUD funding to expand the childcare center that is part of the Katahdin Region Higher Education Center, and before they can begin any physical construction, an environmental review is required by HUD. Part of the review includes an assessment of Acceptable Separation Distance (ASD) for Explosives and Flammables at or near the project location. Specifically, they ask to provide:

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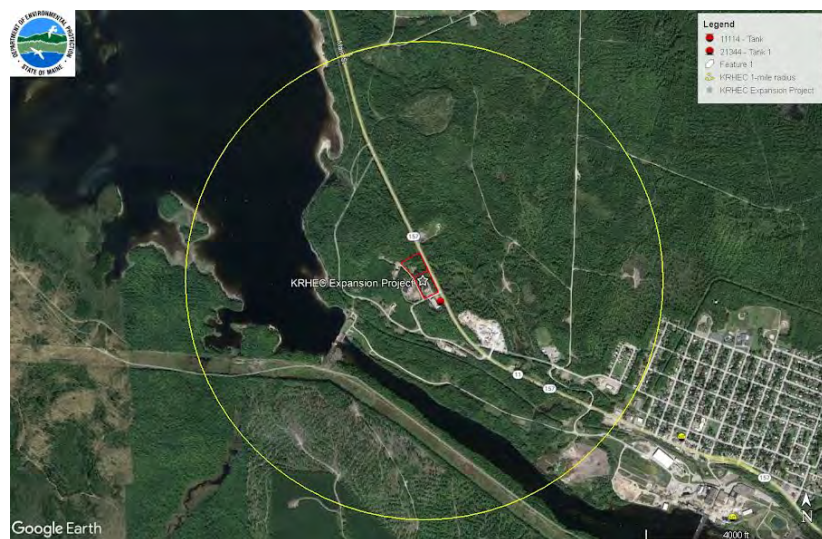
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Is this something you could help us with or provide further guidance on?

We appreciate your time, and thank you in advance. Let us know if you need more information or references to the HUD process.

Tiffany



[Quoted text hidden]

Tiffany Wilson <twilson@stillwaterenv.com>
To: Jeff Spaulding <jspaulding@stillwaterenv.com>

Tue, Feb 7, 2023 at 9:38 AM

FYI
[Quoted text hidden]

Tiffany Wilson <twilson@stillwaterenv.com>
To: "Turgeon, Joseph" <Joseph.Turgeon@maine.gov>
Cc: Philip Ruck <pruck@stillwaterenv.com>, "Day, Gregory J" <Gregory.J.Day@maine.gov>, "Hersey, Dale D" <Dale.D.Hersey@maine.gov>

Tue, Feb 7, 2023 at 9:55 AM

Hi Joey,

Thanks for your quick reply and for the clarification about propane regulation.

If we are able to pinpoint specific AST owners/addresses that we need information on, we may contact you again at some point. We'll also check the TankSmart database as needed.

Have a good day!
Tiffany

[Quoted text hidden]

Tiffany Wilson <twilson@stillwaterenv.com>
To: "Hersey, Dale D" <dale.d.hersey@maine.gov>
Cc: Philip Ruck <pruck@stillwaterenv.com>

Tue, Feb 7, 2023 at 1:23 PM

Good afternoon Dale,

Following up on Joey's response, I wanted to check with your office about our request for information--

Would you be able to provide us with information about the presence of any propane or other flammable/explosive tanks within the area of East Millinocket outlined previously in this email thread?

We are seeking this information as part of an environmental review for a small expansion project at the Katahdin Higher Ed Center, and the review requires an evaluation of acceptable separation distance for tanks within a 1-mile radius of the project.

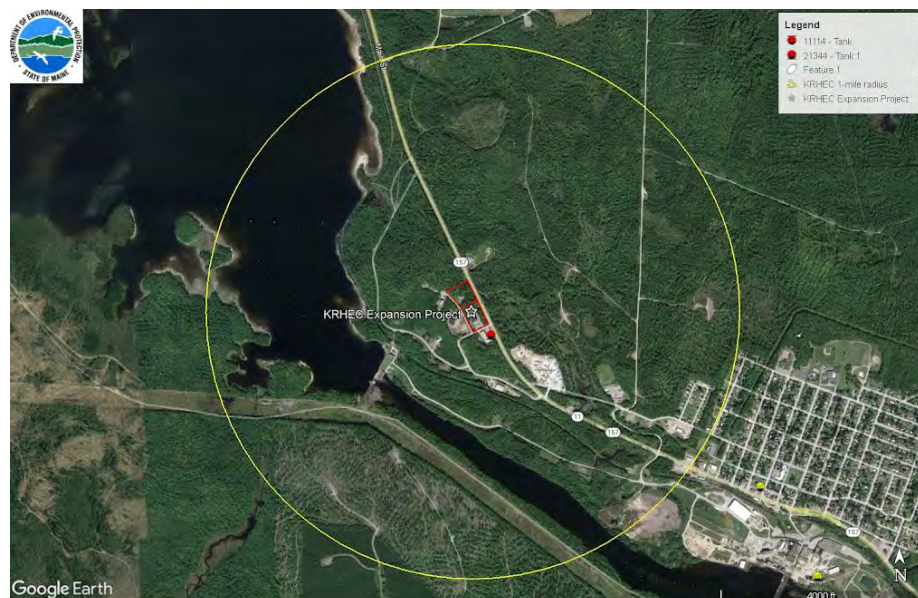
We have already consulted with the Fire Marshal's office, the DEP registered tanks database, and the TankSmart database for registered ASTs, and now we are contacting you regarding propane tanks.

We did do an ALMSonline permit search for East Millinocket that turned up no records for company permits regulated by the Fuel Board.

Can your office confirm that there are no propane tanks within the 1-mile radius area of the Katahdin Higher Ed Center (shown on the attached map), and if so, may we use your response as documentation to use within our project environmental review?

Please let me know if you have any questions, and thanks in advance for your time and guidance.

Tiffany



[Quoted text hidden]

Hersey, Dale D <Dale.D.Hersey@maine.gov>
To: Tiffany Wilson <twilson@stillwaterenv.com>

Tue, Feb 7, 2023 at 1:49 PM

Hi Tiffany,

As far as I know there are no permitted sites within a mile of this site. A permitted site would be a location that had more than 4- 1000 gallon propane tanks, or a container over 2000 gallons.

However, there may be several propane tanks that are 100 gallons or less in the area. I have no way to determine how many tanks of this size may be in the area or where they may be located.

From: Tiffany Wilson <twilson@stillwaterenv.com>
Sent: Tuesday, February 07, 2023 1:23 PM
To: Hersey, Dale D <Dale.D.Hersey@maine.gov>
Cc: Philip Ruck <pruck@stillwaterenv.com>
Subject: Re: ASD for environmental review

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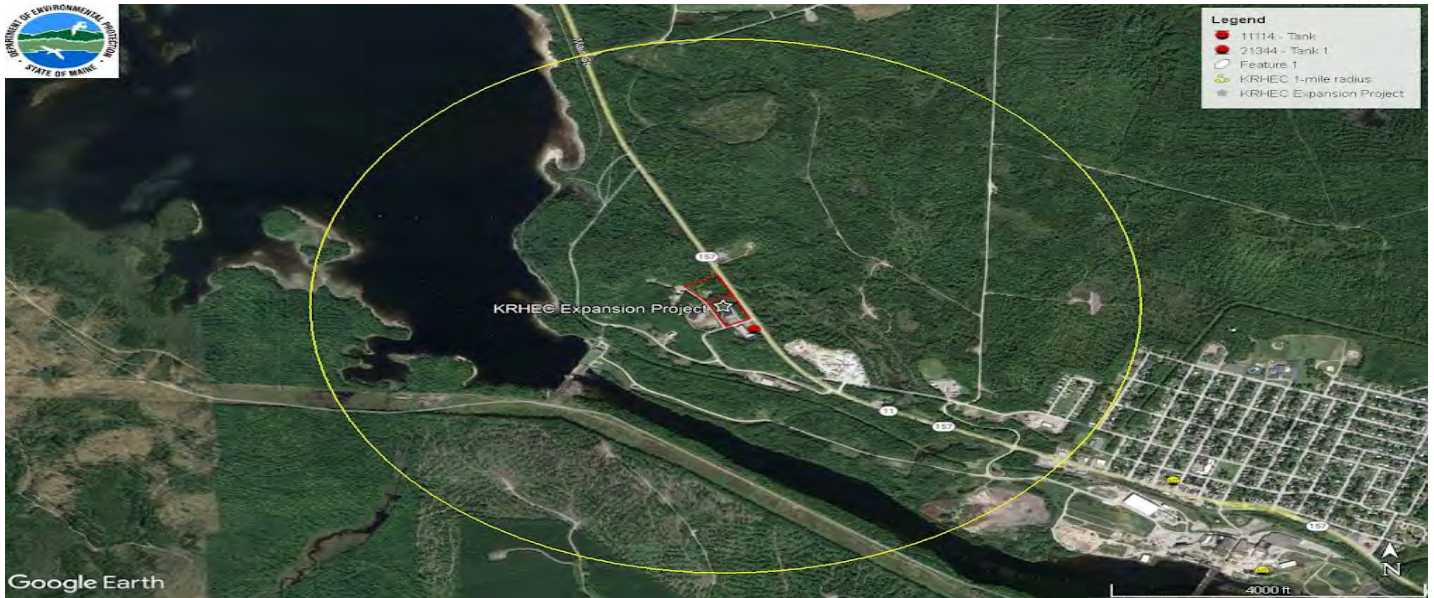
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Please let me know if you have any questions, and thanks in advance for your time and guidance.

Tiffany



[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

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[Quoted text hidden]

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[Quoted text hidden]

[Quoted text hidden]

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Tiffany Wilson, Project Scientist

Stillwater Environmental Engineering, Inc.

PO Box 426

Orono, Maine 04473

Cell: (207) 299-7240

Email: twilson@stillwaterenv.com

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--
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Cell: (207) 299-7240

Email: twilson@stillwaterenv.com

Website: www.stillwaterenv.com

Tiffany Wilson <twilson@stillwaterenv.com>
To: "Hersey, Dale D" <Dale.D.Hersey@maine.gov>

Tue, Feb 7, 2023 at 1:52 PM

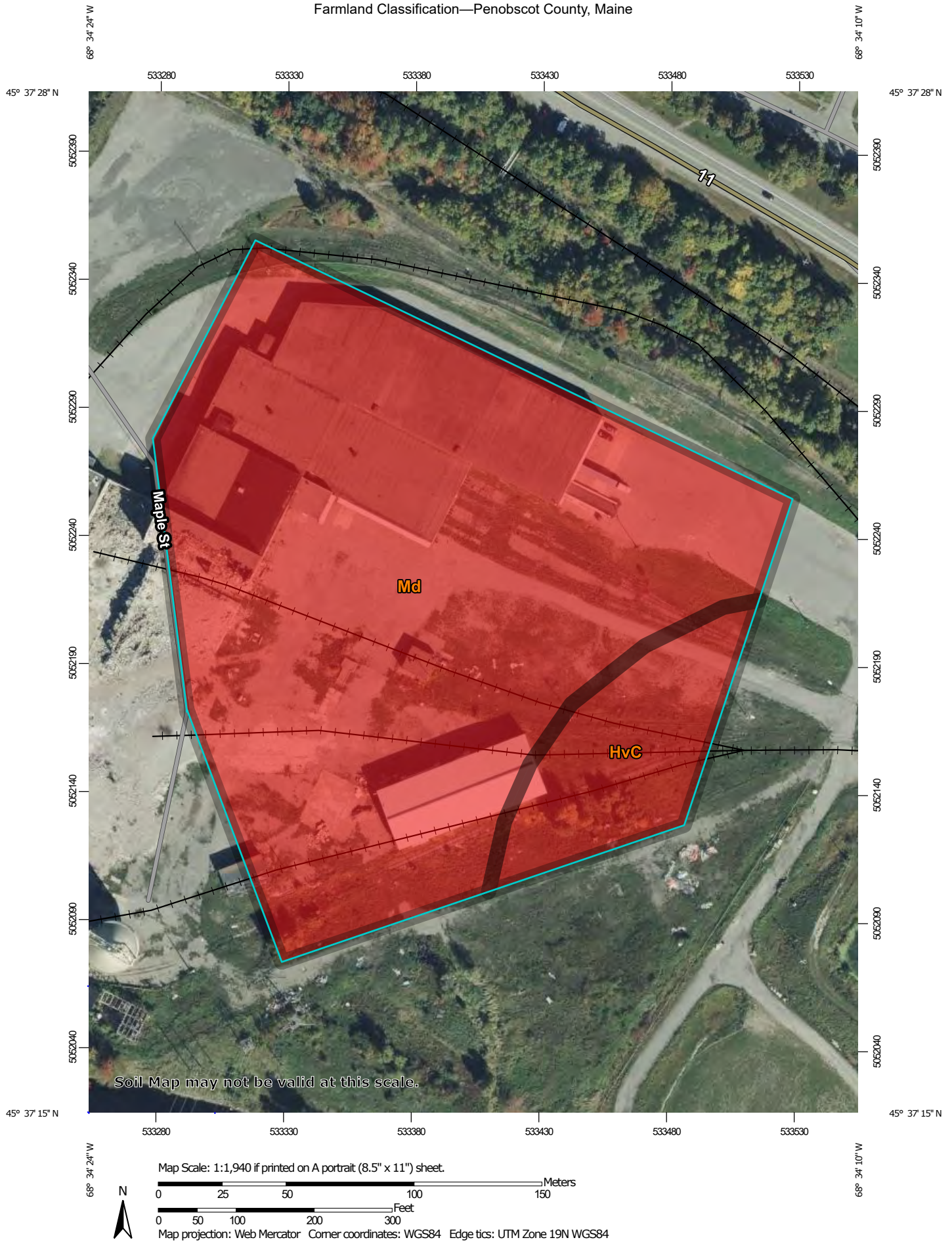
Thank you Dale. That's helpful information that we can use in addition to our other info.
Have a good afternoon!
Tiffany

[Quoted text hidden]

[Quoted text hidden]




Farmland Classification—Penobscot County, Maine











MAP LEGEND








Area of Interest (AOI)






-  Area of Interest (AOI)








Soils



Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Penobscot County, Maine

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
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	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if thawed		Prime farmland if drained		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of local importance		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance, if irrigated		Prime farmland if irrigated		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated						Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated
							Prime farmland if irrigated and drained		
							Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		

Farmland Classification—Penobscot County, Maine



Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HvC	Howland silt loam, 8 to 15 percent slopes, very stony	Not prime farmland	1.4	12.4%
Md	Made land	Not prime farmland	9.9	87.6%
Totals for Area of Interest			11.3	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



March 7, 2024

Dear NBRC Program Consultant:

On behalf of the Town of East Millinocket, Stillwater Environmental Engineering, Inc. (SEE) has prepared materials for the Northern Border Regional Commission (NBRC) to initiate Section 106 consultations for a proposed project (East Millinocket Mill Site Infrastructure Improvements) located at the former Great Northern Paper mill site, at 50 Main Street in East Millinocket, Maine. The Town recently received funding from the NBRC 2023 Catalyst Program for this project, which involves infrastructure upgrades that are part of a phased site redevelopment effort. The property is adjacent to the Town's main commercial area and the Penobscot River.

The project must undergo an environmental review process to determine its potential impacts to the human environment, and whether the project meets federal, state, and local environmental standards, including Section 106 of the National Historic Preservation Act. A consultation with the State Historic Preservation Office (SHPO) and potentially affected tribe(s), via the appropriate Tribal Historic Preservation Officer (THPO), is required as part of due diligence for Section 106 review.

The area of potential effect (APE) includes all project construction and ground disturbance activity required to construct, modify, improve, or maintain any facilities, as well as all construction staging areas, access routes, and utilities. Impacts that come from the undertaking at the same time and place with no intervening causes, are considered "direct" regardless of their specific type (e.g., whether it is visual, physical, auditory, etc.). "Indirect" effects are those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable.

The materials provided on the following pages pertain to the project and site location and can be used to facilitate the SHPO and THPO consultations:

- A project description;
- A description of potential impacts to the adjacent waterway (Penobscot River);
- An overview map—7.5' USGS topo quad map showing the project general location;
- The Town zoning map with an outline of the approximate project area;
- An APE map (11" X 17") of the site; and
- A map showing locations of historic places on the National Register that are within a one-mile radius of the project location (generated using the EPA NEPAassist online tool).



Our review of mapped data of the National Register of Historic Places identified no sites on the historical register within one mile of the project site.

Following your review of the materials provided, we ask that you initiate consultation with the Maine Historic Preservation Commission and the Penobscot Nation THPO for comment on project impacts on structures or sites of historic, architectural or archaeological significance to the State and the tribal nation. The contact information is:

Chris Sockalexis, Tribal Historic Preservation Officer
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468
chris.sockalexis@penobscotnation.org

Kirk F. Mohny, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME, 04333-0065
MHPCprojectreview@maine.gov

Please contact us if you have any questions or need additional information.

Sincerely,

Philip Ruck, P.E., President
Stillwater Environmental Engineering, Inc.
pruck@stillwaterenv.com



East Millinocket Mill Site Infrastructure Improvements

Project description

Fundamental to the redevelopment of the former East Millinocket mill site will be infrastructure improvements that will enhance functionality and safety for all those businesses locating on the repurposed campus. This project, part of a larger redevelopment effort, will include three elements: (1) Constructing Stormwater Management Upgrades; (2) Constructing Road Improvements for surface transportation within the site; and (3) Providing Enhanced Perimeter Security. The project goal is to enable the expansion of existing businesses and location of new enterprises by mitigating risk posed by potential stormwater impacts or a lack of comprehensive site security.

The extent of the stormwater management upgrades is still being determined but is estimated to include repair/replacement of failing culverts, storm drains, and catch basin structures in high priority areas, drainage ditch maintenance, minor detention pond maintenance, and site grading to eliminate areas of ponding.

Road improvements will include prioritized repaving of approximately 25,000 square yards (~5 acres of high priority areas), with an additional 17,000 square yards (~1.5 acres of lower priority areas – see APE map) if costs/budget allow, of existing site travelways, and removal and replacement of the approximately 600 foot existing guardrail adjacent to the river. Perimeter security enhancements will include installation of additional fencing, security cameras and security barriers. Security and road upgrades will require minimal ground disturbance, only that resulting from setting fence/guardrail posts. A negligible amount of vegetation will be disturbed, mainly removal of fence line brush.

Project's anticipated impact to waterways

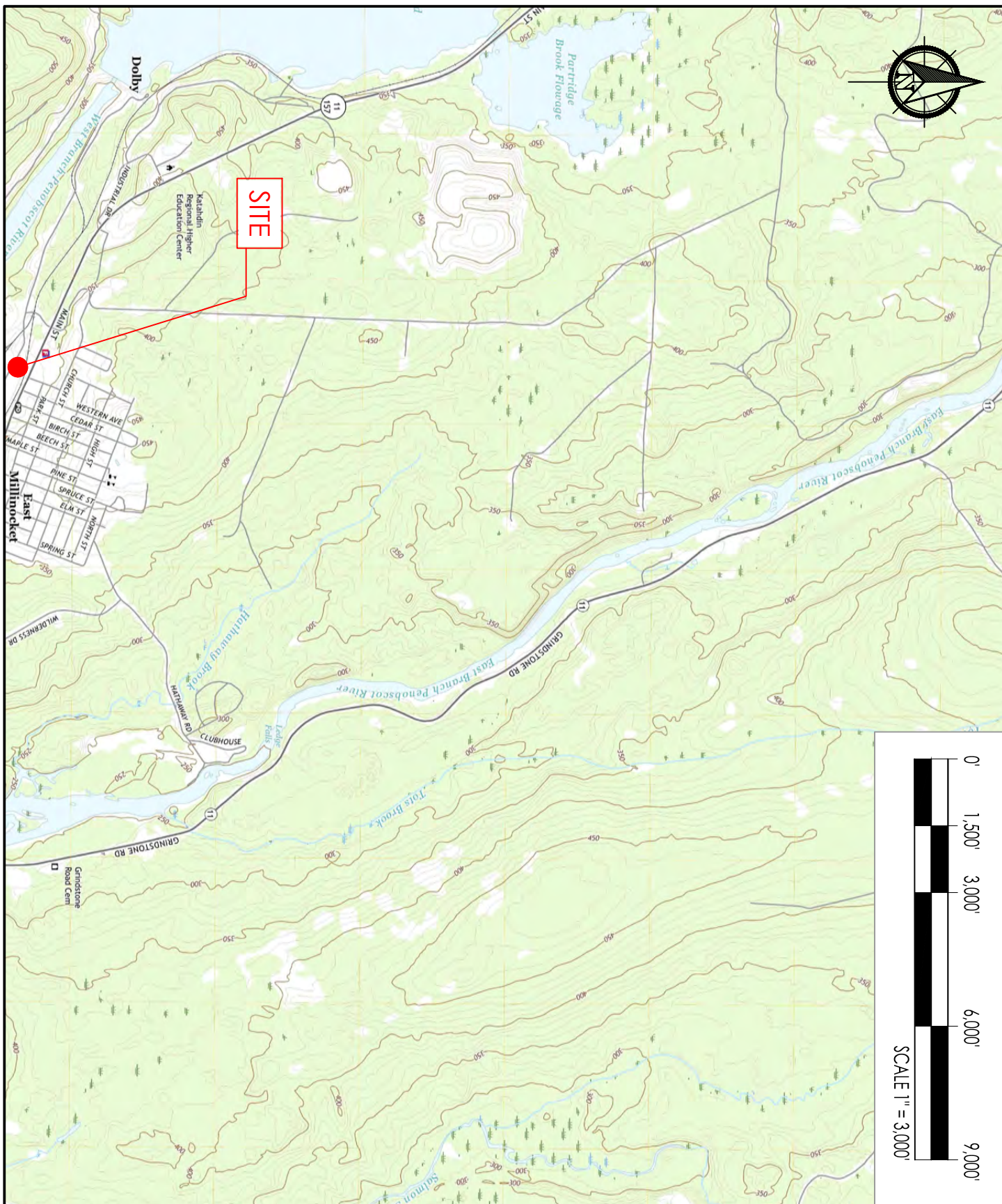
Part of the proposed activities are located within the 100-year floodplain of the Penobscot River and Zone A (area of special flood hazard), as indicated by the East Millinocket FIRM map, effective Feb. 4, 1987, and accompanying digitized Q3 data Maine Flood Hazard Map (<http://maine.maps.arcgis.com/apps/webappviewer/index.html?id=3c09351397764bd2aa9ba385d2e9efe7>). An 8-step floodplain analysis is being developed to accompany the NBRC NEPA assessment. This analysis considers impacts to the floodway along with concerns for damage or loss of property.

The project location is within the Town's Industrial District and Shoreland Protection District. In adherence to the Land Use Ordinance, alterations of land use resulting from the project are consistent with the Town's Industrial District standards to "provide for existing industrial development and provide for a diversification from traditional industrial uses."



The project's anticipated impacts to the adjacent river are negligible, given that the location is already developed for industrial use, and construction and ground disturbance associated with the project are minimal. Direct land use alterations are related to areas of ground disturbance (anticipated to be >6000 cubic yards) for infrastructure deferred maintenance, including storm drain repair/replacement, retrofit of the existing stormwater pond, ditching, and minor grading, as needed. The project will not include any work in the river channel or banks, and there will be no removal of riparian vegetation. Anticipated indirect project impacts include increased traffic (industrial vehicles and equipment) to and within the redeveloped areas. Infrastructure construction/reconstruction will result in negligible to no change of viewsheds from the Main street corridor or from the Penobscot River. Additional noise from increased activities related to the project and will be appropriate to those of the general Industrial District noise levels. The project should directly and indirectly have minimal to no negative impacts on waterways or other natural resources. It is anticipated and intended that the project will have a positive impact on the river resulting from improvements to on-site stormwater management.

Please refer to the attached APE map for more detailed project information and locations of project activities.



Stillwater Environmental
Engineering, Inc

P.O. Box 426 Orono, Maine 04473
207-949-0074
www.stillwaterenv.com

Survey Date
03/04/2024

Project No.
23001-24-1

Project Name
EAST MILLINOCKET
NBRC 2023

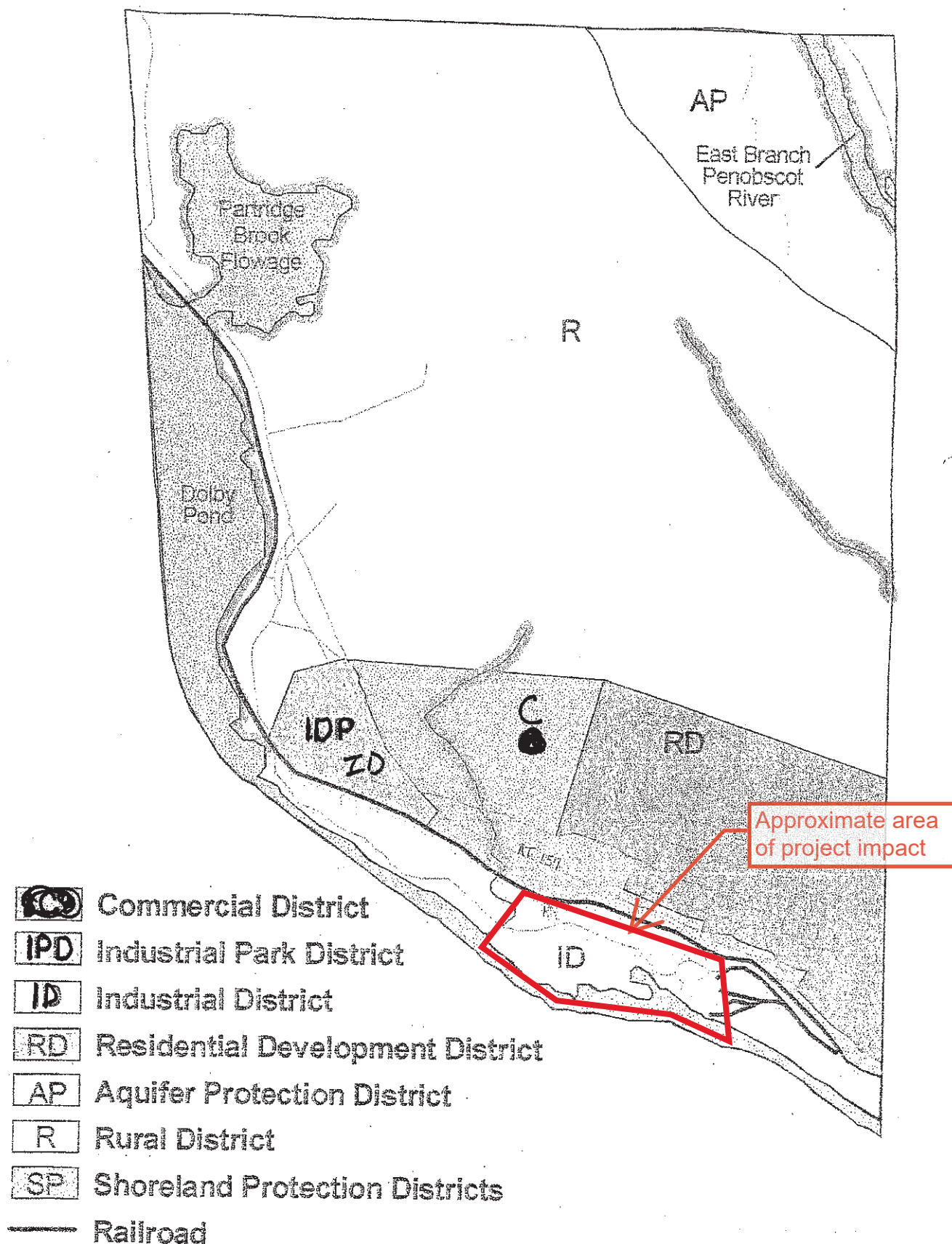
EAST MILLINOCKET, ME 04473

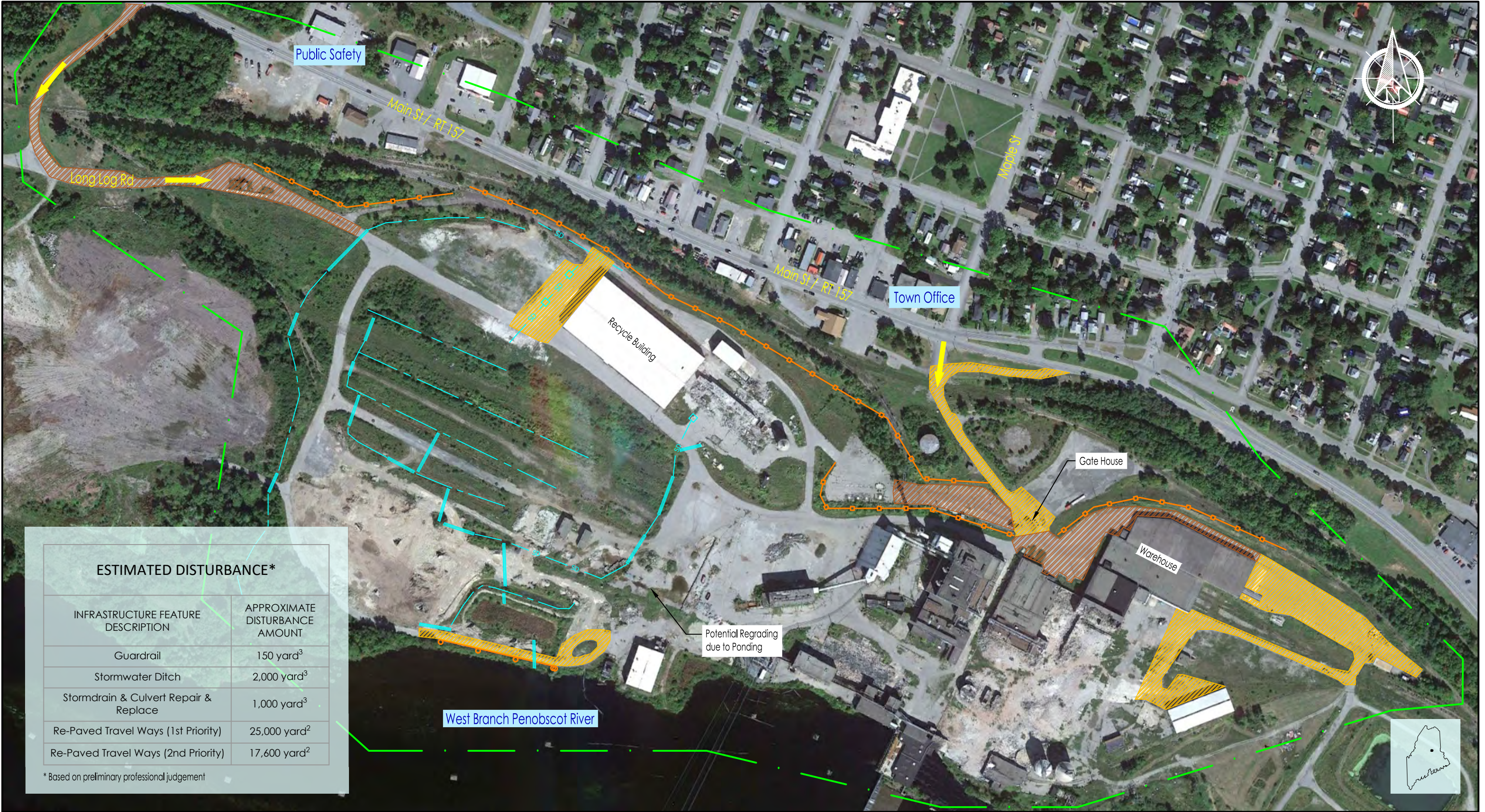
Map Description
NEPA LOCATION MAP

SOURCE OF DATA

Image courtesy of USGS Store:
ME_East_millinocket_20210218_TM
Created by SEE, March 2024


Official Zoning Map of the Town of East Millinocket





ESTIMATED DISTURBANCE*	
INFRASTRUCTURE FEATURE DESCRIPTION	APPROXIMATE DISTURBANCE AMOUNT
Guardrail	150 yard ³
Stormwater Ditch	2,000 yard ³
Stormdrain & Culvert Repair & Replace	1,000 yard ³
Re-Paved Travel Ways (1st Priority)	25,000 yard ²
Re-Paved Travel Ways (2nd Priority)	17,600 yard ²

* Based on preliminary professional judgement



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Date 03/07/2024	Project Name EAST MILLINOCKET NBRC 2023 SITE IMPROVEMENTS	SOURCE OF DATA Image courtesy of Google Earth, Sept. 2022. Created by SEE, March 2024
Project No. 23001-24-1	Map Description NBRC PROJECT AREA OF POTENTIAL EFFECT (APE)	

Key

- Affected Area Boundary
- Guardrail
- Perimeter Fence
- Re-Paved Travel Ways (1st Priority)
- Re-Paved Travel Ways (2nd Priority)

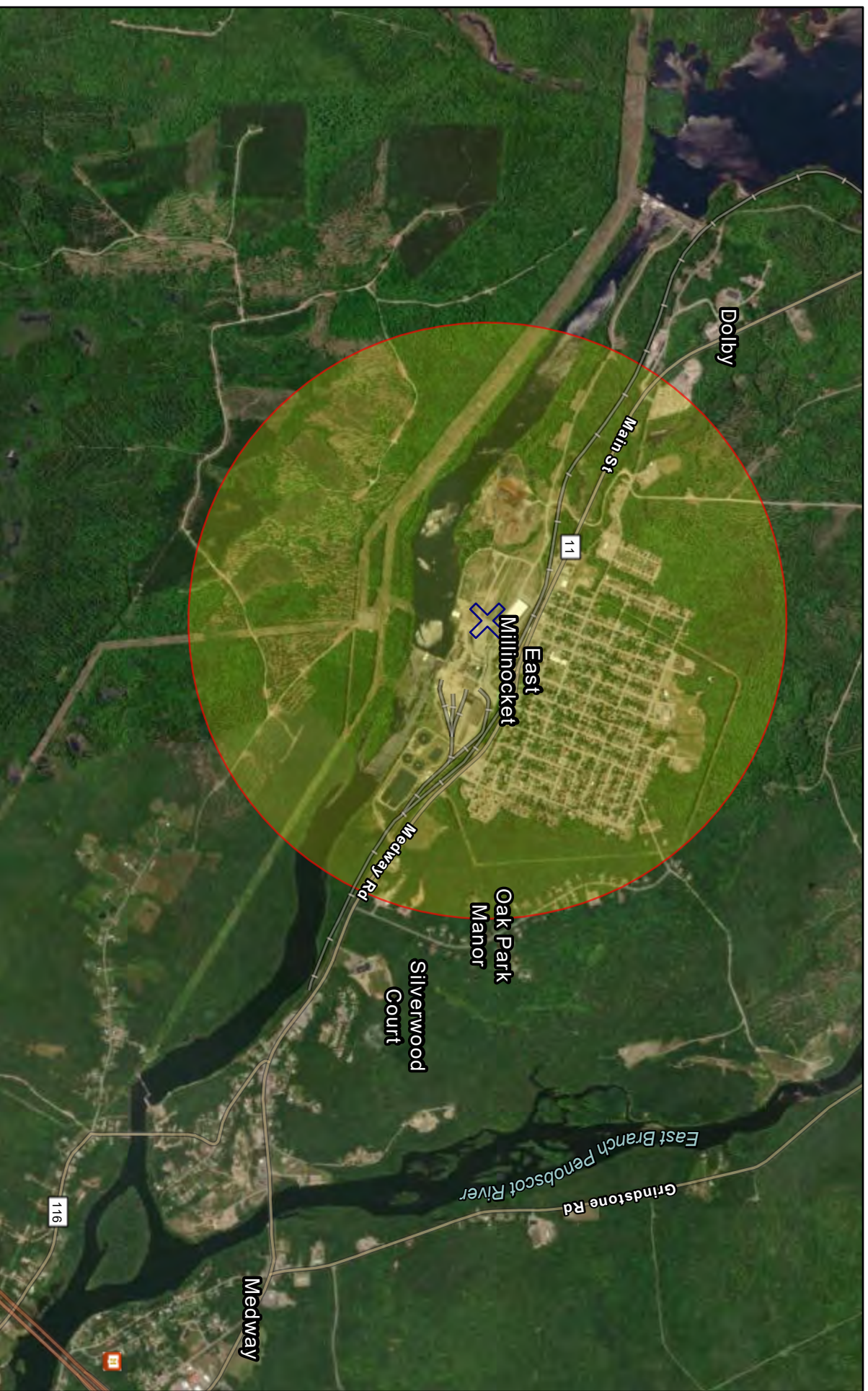
- Project Access Way
- Ditch Line
- Stormdrain & Catch Basin**
- Culverts**

** Assess condition and prioritize repairs



SCALE 1"=300'

East Millinocket NBRC 2024 Historic Places



February 20, 2024



East Millinocket NBRC 2024



National Register of Historic Places

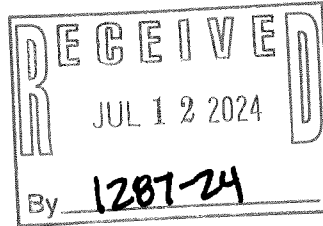


Project Buffer

1:42,000
0 0.25 0.5 0.8 1 mi
0 0.4 0.8 1.6 km
Province of New Brunswick, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., MET/NASA, USGS, EPA, NPS, USDA, USFWS,



STILLWATER ENVIRONMENTAL ENGINEERING, INC. | PO Box 426, Orono, Maine 04473



March 7, 2024

Dear NBRC Program Consultant:

On behalf of the Town of East Millinocket, Stillwater Environmental Engineering, Inc. (SEE) has prepared materials for the Northern Border Regional Commission (NBRC) to initiate Section 106 consultations for a proposed project (East Millinocket Mill Site Infrastructure Improvements) located at the former Great Northern Paper mill site, at 50 Main Street in East Millinocket, Maine. The Town recently received funding from the NBRC 2023 Catalyst Program for this project, which involves infrastructure upgrades that are part of a phased site redevelopment effort. The property is adjacent to the Town's main commercial area and the Penobscot River.

The project must undergo an environmental review process to determine its potential impacts to the human environment, and whether the project meets federal, state, and local environmental standards, including Section 106 of the National Historic Preservation Act. A consultation with the State Historic Preservation Office (SHPO) and potentially affected tribe(s), via the appropriate Tribal Historic Preservation Officer (THPO), is required as part of due diligence for Section 106 review.

The area of potential effect (APE) includes all project construction and ground disturbance activity required to construct, modify, improve, or maintain any facilities, as well as all construction staging areas, access routes, and utilities. Impacts that come from the undertaking at the same time and place with no intervening causes, are considered "direct" regardless of their specific type (e.g., whether it is visual, physical, auditory, etc.). "Indirect" effects are those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable.

The materials provided on the following pages pertain to the project and site location and can be used to facilitate the SHPO and THPO consultations:

- A project description;
- A description of potential impacts to the adjacent waterway (Penobscot River);
- An overview map—7.5' USGS topo quad map showing the project general location;
- The Town zoning map with an outline of the approximate project area;
- An APE map (11" X 17") of the site; and
- A map showing locations of historic places on the National Register that are within a one-mile radius of the project location (generated using the EPA NEPAassist online tool).



Our review of mapped data of the National Register of Historic Places identified no sites on the historical register within one mile of the project site.

Following your review of the materials provided, we ask that you initiate consultation with the Maine Historic Preservation Commission and the Penobscot Nation THPO for comment on project impacts on structures or sites of historic, architectural or archaeological significance to the State and the tribal nation. The contact information is:

Chris Sockalexis, Tribal Historic Preservation Officer
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468
chris.sockalexis@penobscotnation.org

Kirk F. Mohny, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME, 04333-0065
MHPCprojectreview@maine.gov

Please contact us if you have any questions or need additional information.

Sincerely,

Philip Ruck, P.E., President
Stillwater Environmental Engineering, Inc.
pruck@stillwaterenv.com

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohny,
State Historic Preservation Officer
Maine Historic Preservation Commission

7/31/24
Date

MHPC# 1287-24



PENOBSCOT NATION
CULTURAL & HISTORIC PRESERVATION
12 WABANAKI WAY, INDIAN ISLAND, ME 04468

CHRIS SOCKALEXIS – TRIBAL HISTORIC PRESERVATION OFFICER
E-MAIL: chris.sockalexis@penobscotnation.org

NAME	Austin Rizzo
ADDRESS	The Clark Group, LLC 137 Elm St. Suite 1 Montpelier, VT 05602
OWNER'S NAME	Town of East Millinocket Northern Border Regional Commission
TELEPHONE	315-276-6289
EMAIL	austinrizzo@clarkgroupllc.com
PROJECT NAME	NBRC23GME08 East Millinocket Mill Site Infrastructure Improvements - former Great Northern Paper mill site - 50 Main Street
PROJECT SITE	East Millinocket, ME
DATE OF REQUEST	March 7, 2024
DATE REVIEWED	April 30, 2024

Thank you for the opportunity to comment on the above referenced project. This project appears to have no impact on a structure or site of historic, architectural or archaeological significance to the Penobscot Nation as defined by the National Historic Preservation Act of 1966, as amended.

If there is an inadvertent discovery of Native American cultural materials during the course of the project, please contact my office at (207) 817-7471. Thank you for consulting with the Penobscot Nation Tribal Historic Preservation Office with this project.

A handwritten signature in black ink, appearing to read "Chris Sockalexis".

Chris Sockalexis, THPO
Penobscot Nation

Source Water Protection Areas

East Millinocket Water Supply Wells (3)
and 300' / 1000' / 2000' Buffers

West Branch Penobscot River

Main Street

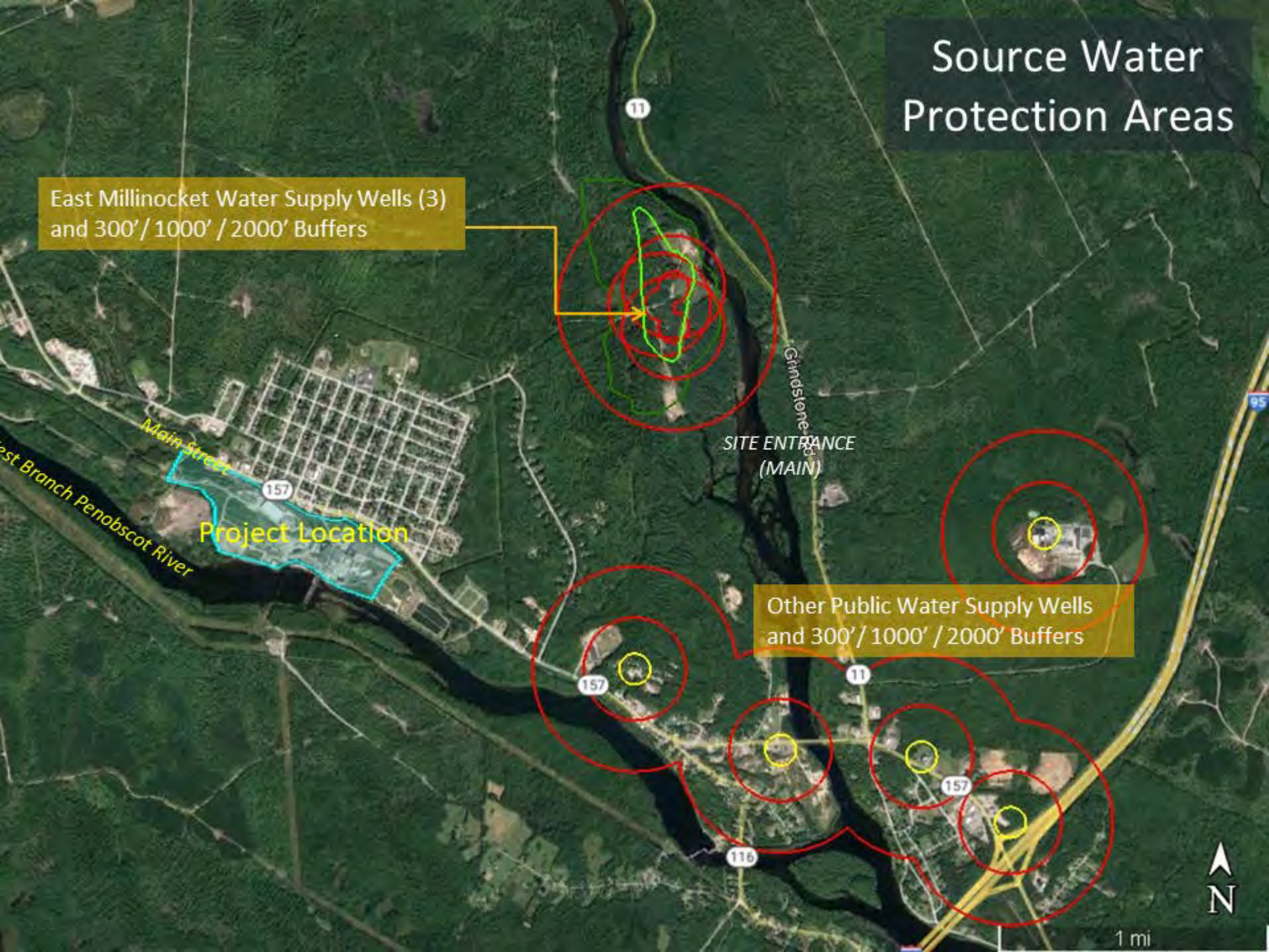
Project Location

SITE ENTRANCE
(MAIN)

Other Public Water Supply Wells
and 300' / 1000' / 2000' Buffers

N

1 mi



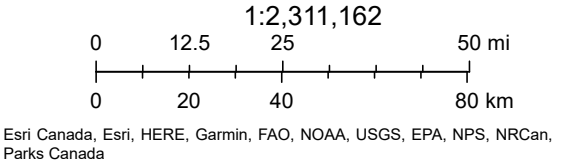
East Millinocket - Sole Source Aquifers



January 25, 2023

 East Millinocket CPF 2022

 Sole Source Aquifers

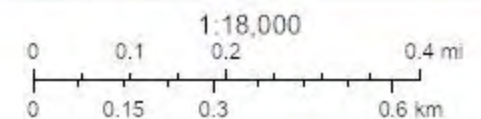


EM Wetlands



July 3, 2024

- | | | |
|---|--|---|
| East Millinocket Mill Redevelopment AE | Freshwater Emergent Wetland | Lake |
| Wetlands | Freshwater Forested/Shrub Wetland | Other |
| Estuarine and Marine Deepwater | Freshwater Pond | Riverine |
| Estuarine and Marine Wetland | | |



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, Esri Community Maps Contributors, Province of

Wild & Scenic Rivers - Maine



January 30, 2023



East Millinocket CPF Projects



Wild and Scenic Rivers

