



Machias, Dike Bridge

WIN 16714

Purpose of the 9/30/2026 Meeting

MaineDOT invites comments and suggestions from all interested parties on the preliminary purpose and need, potential alternatives, or identification of any relevant information, studies, or analyses of any kind concerning impacts to the human environment to inform decision-making. Comments must be provided by October 31, 2026.

Project History-How did we get here?

MaineDOT has spent more than a decade reviewing alternatives for the current structure. Since 2020, MaineDOT has actively engaged with State and federal agencies and the public to understand and balance interests, guided by FHWA NEPA regulations at 23 CFR 771.123 -771.127.

In May of 2022, MaineDOT and FHWA initiated an Environmental Assessment under the National Environmental Policy Act. In May 2022, the Maine Department of Transportation (MaineDOT) publicly announced that a bridge to replace the existing four box culverts on the Machias Dike Bridge #2246, was selected as the preferred alternative. MaineDOT stated that a bridge as the preferred alternative would be carried forward into an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA). The decision to choose a bridge as the preferred alternative was mainly based on information received during Technical Assistance from the National Marine Fisheries Service (NMFS) regarding potential effects under the Endangered Species Act and information gained during the public involvement process.

Date	Event
2009	Initial MaineDOT public meeting
2014	MaineDOT feasibility study begins
2018	MaineDOT identifies fully- gated replacement as preferred alternative
2020	Federal agencies indicate concerns with preferred alternative MaineDOT commits to reevaluating all reasonable alternatives
2021	MaineDOT public meetings on alternatives (March & September)
2022	MaineDOT identifies bridge as preferred alternative, holds public meeting Discussions with property owners, federal resource agencies. Additional study.
2023	MaineDOT identifies fully gated culverts as preferred alternative
2024	MaineDOT installed short-term temporary bridge; Federal agencies indicate need for EIS
2026	MaineDOT installs interim structure and begins EIS process

MaineDOT and FHWA held a public meeting in Machias on June 28, 2022. MaineDOT heard from numerous members of the public in opposition to a bridge, specifically those that would be impacted by restoring tidal exchange upstream of the dike and causeway. In addition, MaineDOT and FHWA heard concerns regarding the potential impacts of inundating a municipal landfill located on the northwest bank of the Middle River.

In response to the June 28th public meeting, MaineDOT further investigated and analyzed the impacts of the bridge and culvert alternatives on the endangered Atlantic salmon, the National Register eligible Machias/Riverside Park Trotting Track, the landfill, and property impacts. Informed by the additional analysis, in November 2023, 9/30/2026 NEPA Public Hearing



Machias, Dike Bridge WIN 16714

MaineDOT changed the preferred alternative from a bridge to a fully gated culvert replacement. MaineDOT and FHWA then initiated the Endangered Species Act and Essential Fish Habitat (EFH) Consultation on the fully gated alternative as required by Federal laws and NEPA. In June, the National Marine Fisheries Service (NMFS) noted in a June 14, 2024, letter to the Federal Highway Administration (FHWA) that the impacts from a replacement of the Dike Bridge with a similar structure that continues the use of fully gated culverts result in “significant adverse impacts to [NMFS] managed species, their designated EFH, as well as a number of NOAA trust resources.” FHWA notified MaineDOT that NMFS identification of a potential “significant impact” requires an Environmental Impact Statement (EIS) to move forward in accordance with NEPA regulations

MaineDOT paused the NEPA process in 2024 to allow local and regional resilience planning efforts that could affect the Project to proceed. In May 2026, the Upper Machias Bay Master Plan concluded and made recommendations regarding the Dike Bridge. MaineDOT has not made any final decisions regarding the Bridge.

In April 2026, MaineDOT replaced the temporary bridge on top of the causeway with a longer-term interim structure. This action maintains traffic on Route 1 over the bridge and adjacent Sunrise Trail while thorough consideration of alternatives, the NEPA process, design and construction of a permanent solution that addresses the condition of the box culverts.



Machias, Dike Bridge WIN 16714

What is NEPA?

National Environmental Policy Act

A process defined in Federal law, regulations & Policy (42 USC 4321; 23 USC Part 139; Fiscal Responsibility Act Section 321, 23 CFR Part 771)

Triggered by Federal actions: Federal Highway Administration (FHWA) Funding

Tool for Informed Decision making:

1. Define transportation problem (P&N)
2. ID a reasonable range of alternatives
3. Consider potential impacts to the environment
4. Collect public and State and Federal Agency input
5. Document and select alternative that best meets P&N

Three levels of NEPA:

1. Categorical Exclusion (CE): Categories of actions defined by FHWA that generally do not have significant environmental effects; NEPA process confirms no significant effects and no unusual circumstances.
2. Environmental Assessment (EA): Actions that are not categorically excluded; Actions that need further study to determine if environmental impacts are significant.
3. Environmental Impact Statement (EIS): Actions that will have a reasonably foreseeable significant effect on the quality of the human environment. Most formal process with highest level of documentation.



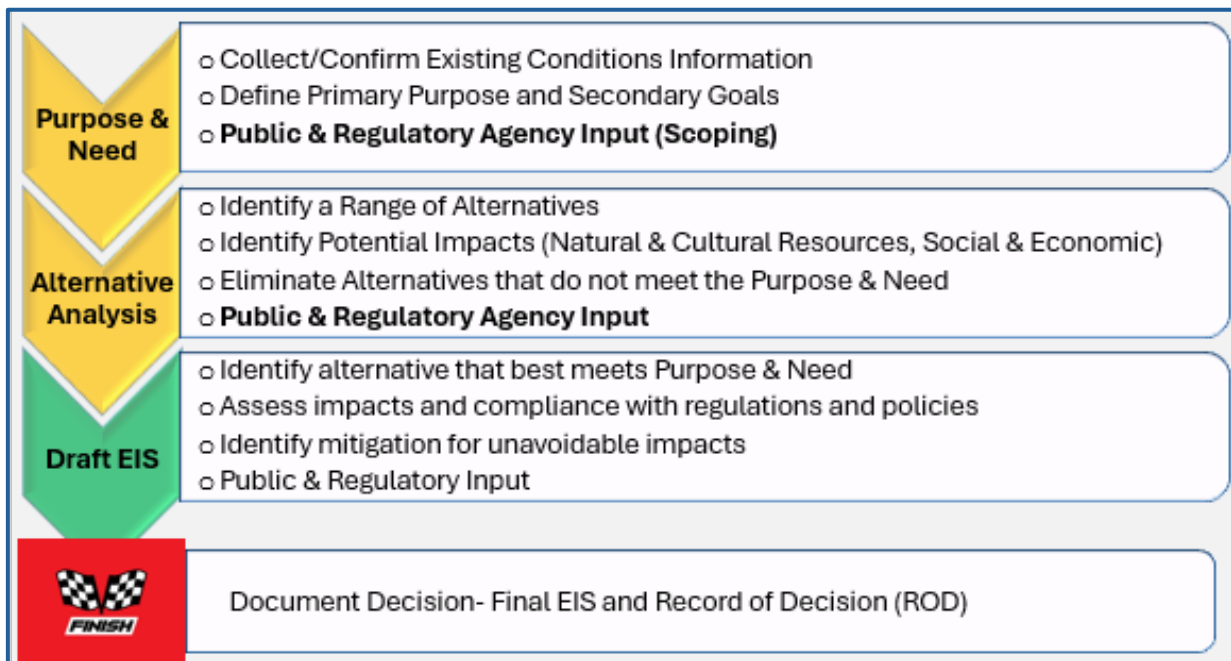
Machias, Dike Bridge WIN 16714

NEPA Assignment

NEPA Assignment is a Program which formally assigns the Federal Highway Administration's (FHWA's) NEPA responsibilities to the Maine Department of Transportation (MaineDOT). The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being and have been carried out by MaineDOT pursuant to [23 U.S.C. 327](#) and a Memorandum of Understanding dated January 30, 2026, and executed by FHWA and MaineDOT.

MaineDOT, as the assigned National Environmental Policy Act (NEPA) lead agency, will prepare an EIS to evaluate transportation solutions for the Machias Dike Bridge on Route 1 in Machias, ME. The EIS will be conducted in accordance with the requirements of NEPA, as amended (42 United States Code [U.S.C.] Section 4321, *et seq.*), [23 U.S.C. 139](#), FHWA regulations implementing NEPA ([23 CFR 771.101-771.139](#)), and all applicable federal, state, and local governmental laws and regulations.

NEPA -EIS Process Summary





Machias, Dike Bridge WIN 16714

EIS Process -Detailed Tasks	Forecasted Schedule
Decision to pause NEPA/project.	2024
Decision to restart NEPA evaluation and press release.	6/1/2026
MaineDOT officially invites cooperating agencies and participating agencies.	7/2/2026
Environmental Impact Statement (EIS) Notice of Intent (NOI) published in Federal Register. 2-year regulatory clock begins.	7/15/2026
MaineDOT leads public meeting w/ the public and agencies on project history, Purpose and Need (P+N), alternatives, and schedule. Open public comment period.	9/30/2026
Public/agency comment period ends on P+N and Alternatives.	10/31/2026
MaineDOT finalizes the P+N and a reasonable range of alternatives.	11/14/2026
MaineDOT starts any required consultations and finalizes any previous consultations.	11/21/2026
MaineDOT starts draft NEPA EIS document with preferred alternative. Based on public meeting input/questions and all previous evaluations to date.	11/21/2026
MaineDOT signs draft EIS.	4/9/2027
Draft NEPA EIS document and Notice of Availability (NOA) published in Federal Register	4/30/2027
MaineDOT posts Draft EIS and NOA on website and sends notice to public and participating/cooperating agencies for comment.	4/30/2027
MaineDOT leads public meeting for draft NEPA EIS document.	6/11/2027
Deadline for public and participating/cooperating agencies' comments on draft NEPA EIS document.	7/11/2027
MaineDOT responds to Draft EIS substantive comments and includes them in Final NEPA EIS document.	7/18/2027
Final combined EIS and Record of Decision (ROD) drafted	7/25/2027
Maine DEP and U.S. Army Corps Of Engineers (USACOE) permit applications submitted for the preferred alternative.	7/25/2027
MaineDOT signs Final NEPA EIS/ROD document	9/12/2027
Final NEPA EIS/ROD published in the Federal Register. MaineDOT posts document on the website and sends notice to public and participating agencies.	10/10/2027

PURPOSE AND NEED FOR ACTION

Project Background and Need:

Dike Bridge (Br#2246) carries Route 1 over the Middle River in the Town of Machias, Maine. The Middle River joins the tidal portion of the Machias River immediately downstream of the bridge and causeway. The bridge consists of four box culverts within an embankment structure (causeway). The culverts are constructed of timber and stone masonry and are approximately 130 feet long, 6 feet wide and 5 feet high. Each culvert has top-hinged flap gate installed on its seaward side.

The flap gates close during incoming (flood) tides to prevent tidal waters from moving upland. They open during outgoing (ebb) tides to allow upland water to flow through the culvert and into the Machias River. The causeway width varies from 85 to 94 feet, is constructed of timber cribbing with rubble and earthen fill and is over 1,000 feet long. The slopes of the causeway are lined with riprap. On the upstream side, riprap is interspersed with shrubs and herbs and borders an intertidal zone. Salt marsh occupies the area to the east. On the seaward side, vegetation is sparse, and the intertidal zone is dominated by mudflats.

Route 1 is a critical commercial, commuter, and tourism corridor in Downeast Maine (Washington and Hancock Counties) and is classified as a highway corridor priority 2, a minor arterial, and carries approximately 9,530 vehicles per day. Route 1 over the causeway consists of two 12-foot travel lanes, two 8-foot shoulders, and a 20-foot-wide public parking area that is regularly used for local markets and trade events, though some of these uses have been limited by recent repairs. In addition, the causeway carries the Calais Branch Rail Corridor and a section of the 87-mile off-road, multi-use Down East Sunrise Trail.



Photo 1. Route 1 Causeway with parking, Downeast Sunrise Trail/Rail Corridor.



Photo 2. Dike Bridge culverts with flap gates downstream.

A municipal boat launch is located at the southwest corner of the causeway. Both ends of the causeway are surrounded by commercial properties including Helen's Restaurant, Machias River Inn, and the Machias Bay Chamber of Commerce (located in the Machias Historic Railroad Station) in the west approach; and Dunkin', Pat's Pizza, and the Inn at Schoppee Farm in the east approach. The Machias Wastewater Treatment Plant and a private residence are located at the northwest corner of the project, along with a buried sewer force main and pumping station located just north of the causeway. A National Historic Register Eligible Trotting Track is located to the northeast of the causeway.

Figure 1. Machias Dike Bridge Project Vicinity



The need for the project is based on its structural condition. Bridge #2246 is over 92 years old and has a current structure rating of 4 on a scale of 0-9 based on routine inspections conducted in May and October 2023. The inspection indicated large spalls, heavy scaling, wide cracks, loss of rotten timber members, roadway settlements, and the need for numerous urgent and unscheduled repairs. Dive inspections were conducted in September and November 2023 and noted new areas of soil loss between the concrete slab under the road surface and the timber that forms the top of the gated boxes. In 2024, MaineDOT installed a temporary bridge over the existing structure to address immediate structural concerns.

In April 2026, MaineDOT replaced the temporary bridge on top of the causeway with a longer-term interim structure. This action maintains traffic on Route 1 over the bridge and adjacent Sunrise Trail while thorough consideration of alternatives, the NEPA process, design and construction of a permanent solution that addresses the condition of the box culverts.

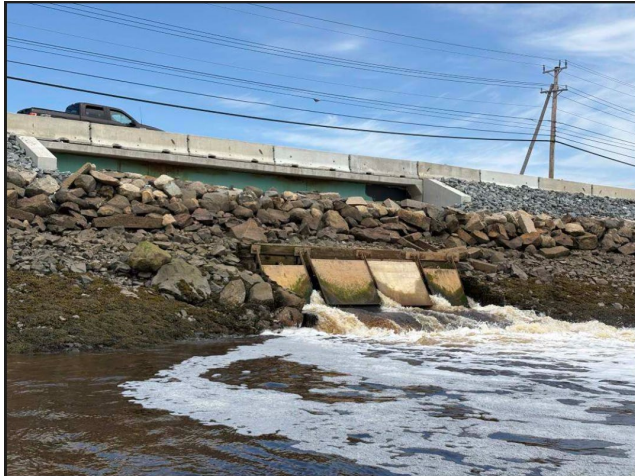


Photo 3. Interim Bridge Structure installed in 2026



Photo 4. Aerial view of Interim Bridge Location

Project Purpose:

The preliminary purposes of this project are:

1. To achieve an overall bridge structure condition rating of Good (a rating of 7 or better on a scale of 0-9). The desired structural condition rating of at least a 7 indicates there are no noticeable or noteworthy deficiencies which affect the condition of the structure. This is in accordance with FHWA's Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges.
2. To preserve the Calais Branch Rail Corridor in the area in accordance with the State Railroad Preservation Act.



Machias, Dike Bridge WIN 16714

Alternatives to be Considered in draft EIS

The following table describes the alternatives to be carried forward into the EIS process. The evaluations and impacts noted in the table are from prior work, summarized in the published *Public and Agency Information Document* published in November of 2024.

The EIS process will require re-consideration of this information.

ALTERNATIVE CONFIGURATION		ALTERNATIVE EVALUATION								LANDWARD IMPACTS				
		PURPOSE AND NEED		SECONDARY GOALS			OTHER			Landward Water Surface Elevation (WSEL) (NAVD88)	Increased Acreage Impact	Number of Properties	Hazardous Waste Sites	Wells/ Septic
		Overall Structure Rating	Railroad Corridor	Fisheries (passage)	Sea Level Rise (SLR)	Transpo. & Community Uses	Impacts to Tidal Regime	Constructability & Maintenance	Stride Bridge (#3973)	NOTE: Impacts noted are from differences in normal water levels for normal tides and normal riverine flow (non-flood events)				
Alt. No.	Culvert or Bridge, Span and Size	'Good'	Preserves railroad corridor	Improvement (Yes/No) & Monitoring	Consistent w/ Town & State Climate Council Guidance	Maintains current public uses of the causeway	Ranges from No change to full restoration	Water management, dredging, and future maint.	1948 ~ 12.5 ft span culvert located upstream	MHW WSEL LOW (<2') MEDIUM (2' to 4') HIGH (>4')	Acreage impacts due to change in WSEL	Parcels impacted by change in WSEL	Hazmat sites impacted by change in WSEL	Parcels w/ wells & septic impacted by change in WSEL
-	No Build	No	Yes	No	No	No	No Change	N/A	No Change	N/A	N/A	N/A	N/A	N/A
1	Fully Gated Culverts	Yes	Yes	No	Yes	Yes	No Change	• Difficult dewatering	No Change	LOW (EL. -2.5' Change = -1.7')	N/A	N/A	N/A	N/A
4	5 culverts, 4 gated, 1 open, all at EL-6.05	Yes	Yes	Yes (w/incoming tide) fish monitoring & long term take of Endangered Atlantic Salmon anticipated	Yes	Yes	Improvement 40 intertidal habitat acres	• 1,000± CY of dredging • Difficult dewatering	No Change	LOW (EL. 0.8' Change = +1.5')	40	10	0	0
4 MOD	3 larger culverts, 2 gated @-4.05, 1 open @-6.05	Yes	Yes	Yes (w/incoming tide) fish monitoring & long term take of Endangered Atlantic Salmon anticipated	Yes	Yes	Improvement 86 intertidal habitat acres	• 1,000± CY of dredging • Difficult dewatering	No Change	MEDIUM (EL. 2.1' Change = +2.8')	86	28	1 municipal landfill (needs further study)	0
9	4 open box culverts	Yes	Yes	Yes (w/incoming tide) fish monitoring & long term take of Endangered Atlantic Salmon anticipated	Yes	Yes	Improvement 168 intertidal habitat acres	• No flap gates to maintain • Difficult dewatering	• Requires replacement sooner	MEDIUM/HIGH (EL. 4.1' Change = +4.8')	168	38	1 municipal landfill (needs further study)	1
10	120 to 150 ft bridge, parking in bridge approaches only	Yes	Yes	Yes (conditions replicate natural fish passage, but no fish monitoring)	Yes	Yes	Restoration; 398 intertidal habitat acres	• 6,000± CY of dredging • Landward sediment scour & seaward shoaling needs further study	• Requires replacement now due to increased hydraulic opening, salinity and ice floes	HIGH (EL. 7.9' Change = +8.6')	398	54	1 municipal landfill (needs further study)	5
10A	120 to 150 ft bridge, w/parking on bridge & approaches	Yes				Yes								

*Not all alternatives considered in the current study are shown here. The shown alternatives were selected for detailed study as being representative of a wider range of alternatives.



Machias, Dike Bridge WIN 16714

Environmental Impacts and Issues

MaineDOT has identified several potential environmental impacts and issues to date:

- ❖ Tidal Exchange-Upstream Tide Changes
- ❖ Property Impacts
- ❖ Municipal Landfill
- ❖ Wetlands & Waterbodies
- ❖ Fish Passage: Endangered Species Act & Essential Fish Habitat
- ❖ Cultural Resources :Machias/Riverside Park Trotting Track, Route 1, Railroad Depot, Boat Launch, Downeast Sunrise Trail/Rail Corridor
- ❖ Community Uses of the Causeway
- ❖ Transportation Resiliency

The results of MaineDOT analysis will be presented in 2027 in a draft EIS for public comment.