



# Municipal Stream Crossing Grants

Since 2015, Maine voters have approved a total of four bonds that fund the upgrade and replacement of stream crossings throughout Maine. These monies fund DEP's competitive grant program that matches local funding for the upgrade of municipal culverts at stream crossings to improve fish and wildlife habitats, reduce flooding, and increase community safety.

## Project Stats



**\$10,700,000.00**

In grant funding awarded to stream crossing upgrades

**\$13,081,538.32**

Matching funds proposed by awarded municipalities

**130**

Number of projects awarded funding for long-lasting structures



**12,172**

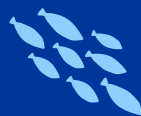
Sum of residences or businesses directly affected by crossing failure

**40**

Average age of replaced crossings in years

**80%**

Of projects meeting 1.2x bankful width guideline



**2.8x**

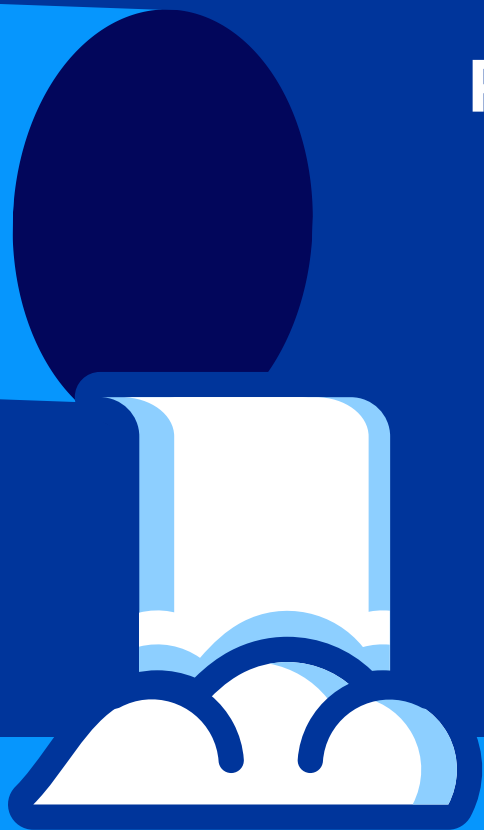
Average increase of original crossing widths

**107**

Awarded projects that would remove barriers to fish passage

**185**

Miles upstream opening to fish passage



## Grant Program Timeline

2015

\$0.8 million awarded

2016

\$2.5 million awarded

2017

\$2.4 million awarded

2019

\$5.0 million awarded





# 2019 MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION MUNICIPAL STREAM CROSSING GRANTS CASE STUDIES\*

2015-2019 Awarded projects found in all Maine counties!

\*55 Total Projects in 2019

## 1 COUNTY PRIORITY

50 Years Old  
Upgrade with  
Steel Bridge  
\$782,854



## 3 FUNDED PROJECTS

25, 25, and 11  
Years Old  
Upgrade with  
Concrete Bridge  
\$392,869



## 2 UNDERSIZED CULVERTS

19 Years Old  
Upgrade with  
Box Culvert  
\$62,500

**Houlton's** view of the Morningstar Road stream crossing as a frequently blocked inconvenience changed when it overtopped in 2010. In fact, the Morningstar crossing is the #1 priority for the Aroostook County Hazard Mitigation Plan. The 9-foot-wide culvert through which Moose Brook flows is distorted and undermined both internally and externally, creating cracks in the road above. Failure of the crossing would restrict employees and emergency responders from accessing the Tate and Lyle ingredients plant which houses hazardous chemicals and remains an integral part of the town economy. The perched culvert is also a barrier to aquatic species, restricting flow to the Meduxnekeag River.

The stream will be restored to its historic alignment with a bridge going across. The town is applying for a FEMA grant to assist with the cost of this expensive project. As part of the Houlton Band of Maliseet Indians' larger project to recover many miles of stream habitat, reconnecting Moose Brook to the river will also open up habitat ideal for Atlantic Salmon and Brook Trout while promoting the safety and economic security of the town.

**Charleston's** series of stream crossings was taking a toll on the town fiscally, socially, and environmentally, but raising the necessary funds for repairs was difficult. Crossing maintenance costs for removing blockage, repairing road damage, and reconstructing structures drained the town budget. Furthermore, flooding or washouts could mean detours from 3 - 7 miles for residents, local businesses, a correctional facility, and emergency services. The crossings also acted as barriers to aquatic species such as brook trout, threatening ecosystems and recreational fishing.

By asking questions and utilizing resources efficiently, the town restored five stream crossings in 2020, 3 funded by the DEP. They also combined money from the Atlantic Salmon Federation and an oil spill settlement, to fund construction. Charleston further leveraged resources by using similar designs and work windows to save on mobilization costs. The designs were relatively low-cost but extremely durable, low-maintenance, and long-lasting to benefit public safety and economic stability while opening up 12.6 miles of previously unconnected streams.

**Addison's** twin 3-foot culverts have open bottoms, but they weren't built with the intention of having natural stream beds. Rather, they have rusted out completely. Influenced by beaver activity, in heavy flow the undersized crossing causes water to overtop the road, erode the shoulder, and restrict traffic to one lane. If these culverts were to fail, 50 homes and two wharves used for commercial fishing would be cut off. The crossing requires high tides for sea run fish species to swim through and prevents the upstream vegetation from becoming more salt tolerant to rehabilitate local habitat. This habitat is also important for bald eagles and various waterfowl.

The new crossing will consist of a 10-foot cement box culvert with low-cost but durable materials. The cement should last longer than metal, and the design will prevent the need to frequently replace stone for erosion and stability. The culvert will also follow Stream Smart Principles which will reduce flooding and permit both aquatic organism passage and tidal flow.