

Narraguagus River Protection Project, Phase 1

#2006R-20 – WIFAP

Waterbody Name: Narraguagus River

Location: T34MD, T35MD, T28MD, T22MD,
Beddington and Devereaux TWP –
Hancock & Washington Counties

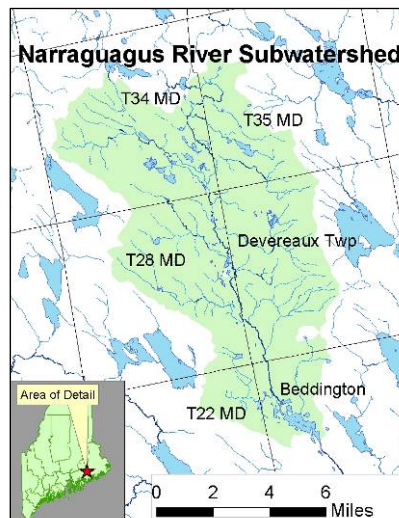
Waterbody Status: NPS Priority Watershed, Salmon River

Project Grantee: Washington County SWCD

Project Duration: March 2007 – December 2008

319 Grant Amount: \$30,000

Match: \$31,513 (local), \$20,000 (ME Dept. Ag.)



PROBLEM:

The Narraguagus River is listed among eight rivers in Maine that contain a federally endangered Distinct Population Segment of Atlantic salmon. According to the Atlantic Salmon Recovery Plan, the Narraguagus River is second only to the Machias River in its importance to Atlantic salmon. Commercial timber harvesting and blueberry production are the two most important land uses within the watershed. The watershed is also used extensively for recreational purposes such as fishing, hunting, ATV/snowmobile riding, canoeing and camping. There is some development along the Narraguagus, especially in the Town of Cherryfield.

NPS erosion detrimentally affects riverine habitat for salmonids and contributes to 'embeddedness', where soil particles fill in the spaces of coarse gravel making it unsuitable for spawning and juvenile habitat. The Narraguagus River Watershed Council and Project SHARE coordinated the development of the *Narraguagus River Watershed Nonpoint Source Pollution Management Plan* (January, 2003) with help from a 319 grant. Washington County SWCD conducted a NPS survey in the sub-watershed of the Narraguagus River where the majority of high value salmon habitat is located and identified 21 NPS sites, the majority of which were eroding stream crossings.

PROJECT DESCRIPTION:

The project focused on the highest priority subwatershed of the river, which contains the greatest amount of critical habitat for spawning and rearing juvenile salmon. This subwatershed extends southward from the outlet of Deer Lake to the outlet of Beddington Lake. Best Management Practices were installed at 11 of the highest priority NPS sites. Treating these sites significantly reduced the amount of sediment washing into the river annually, thereby protecting critical salmon habitat. The project also educated landowners about BMPs and long-term maintenance. All construction projects were completed by a contractor certified in erosion and sediment control practices by the Maine DEP's contractor certification program. Press releases about the project were printed in local newspapers.



PROJECT OUTCOMES:

- The project installed BMP's to fix 11 NPS sites located in the highest priority sub-watershed (in terms of Atlantic salmon habitat) of the Narraguagus River.
- An experimental "squash" culvert was successfully installed. This type of culvert is viewed as a potential cost effective substitute for an arch culvert.
- Three crossings were removed and the channel was stabilized with BMP's, allowing 190 feet of channel to revert to natural streambed.
- The project resulted in an estimated pollutant load reduction of 108 tons of sediment annually (EPA Region 5 Method and WEPP model).
- The project was completed in close cooperation with the landowner, American Forestry Technologies (AFT), which owns and maintains a large amount of timberland in the Downeast Atlantic salmon watersheds. From this project, AFT learned the proper application and maintenance of BMPs, which they will apply to their forest roads in the future.



Stabilized underdrain culvert



"Squash culvert" that has been installed to maintain stream integrity

PROJECT PARTNERS:

American Forestry Technologies
Narraguagus River Watershed Council
Maine Land Use Regulation Commission
Maine Department of Agriculture

CONTACT INFORMATION:

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Suggested Citation:

Maine Department of Environmental Protection (2009) "Nonpoint Source Management Program 2008 Annual Report," Document# DEPLW-0973 2009. Augusta: MDEP.