

Regional Tidal Crossing Assessment Workshop, September 10, 2015

What (if any) work have you done to assess tidal culverts/crossings?

Program began at DEP in 1972 with a report Tidal Gates & Other Restrictions in the State of Connecticut. Report found that it was difficult to locate the tide gates, there were questions regarding jurisdiction, and there were no standards on the operation of gates. Report also recommended follow-up studies were needed (never happened). Today, DEEP/Fisheries keeps records of tidal road crossings for fish passability, but there has been no systematic inventory. DEEP/WHAMM has completed several wetland restoration projects to allow more tidal waters into marshes using larger culverts – they have found “the larger the pipe, the better the restoration.” Projects are run through a Tidal Wetland Restoration team comprised of state and federal resource managers.

What is the driver of this work? Is there a funding source?

Driver for DEEP has been varied including anadromous/diadromous fish passage connections, tidal wetland restoration, coastal resilience/flooding, and mosquito control. The funding has also been varied: in-house staff time or NOAA funds (fisheries), federal CZM funds (wetland restoration), and federal resilience grant funding (SLAMM).

Do you have future assessment or other work related to tidal crossings planned?

DEEP/OLISP has proposed more Sea Level Affecting Marsh Migration (SLAMM) analysis of tidal restrictions for the purposes of identifying the impacts of sea level rise on wetland systems.

Have you run into any road blocks with tidal crossings? If so, please describe.

Funding and staff for additional projects is at the top of the list. Too many low-lying streets and residential properties which could be in jeopardy if/when restrictions are opened, as we cannot improve a good number of tidal crossings without first eliminating the flood-prone properties. Uncooperative municipal leadership. In a few situations in CT, towns refuse to open tide gates due to perceived risk of flooding.

Anything else you would like to share that could be useful for others and inform the workshop conversation

Fisheries: Tidal road crossings are not much different than other road crossings for which we have standards to which we ask applicants to conform. The tidal aspect adds a layer of hydraulic complexity that is absent for inland crossings. Fisheries is concerned with eliminating perched outlets, excessive velocities, unacceptable low water depths, and occasionally long, underground, darkened passages.

Habitat Restoration: Already a general trend towards wider openings from OLISP coastal permitting policies.

Planning: A concern regarding with the ‘bigger is better’ approach to sizing tidal culverts is that this approach may facilitate the drowning of CT’s tidal marshes, or in the shorter term replacing high marsh with low marsh, as predicted by SLAMM. Some thought should be given to including devices (e.g., tide gates) on such structures that would allow managers to control the amount/hydroperiod of tidal flooding when/if too much tidal water is flooding marshes that could accelerate their drowning under alternative SLR scenarios.

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