

York River Study Committee / ORV Subcommittee Meeting
Topic: Infrastructure and Aquatic Organism Passage
Thursday, March 30, 2017, 11:00 AM – 1:00 PM
York Public Library Community Room

Meeting Notes

Attendees:

York River Study Committee members: Cindy Donnell, Claire Enterline (Maine Coastal Program), Judy Gates (Maine Department of Transportation), Jennifer Hunter, Joan LeBlanc, Jim MacCartney (National Park Service), Jack Murphy, Chuck Ott, and Beth Walter
Alex Abbott (USFWS), Jacob Aman (Wells Reserve), Joe Anderson and Doreen MacGillis (York Land Trust), Priscilla Cookson (York conservation commission, YRSC advisor), Dean Lessard (York Department of Public Works); Emma Lord (National Park Service), Mike Morgillo (York conservation commission), David Rich (Kittery Department of Public Works); Paula Sewall (York resident, YRSC advisor)

Meeting goals: The York River Study Committee has organized a series of meetings on specific topics to gather and share information to help characterize watershed resources and develop management plan actions and recommendations. Experts, project managers, and others interested in topics are asked to provide input and share ideas and information in these meetings.

- Presentation by Alex Abbott (US Fish and Wildlife Service), *See presentation, with detailed speaker notes:*
http://www.yorkrivermaine.org/wp-content/uploads/2017/04/Abbott_York_River_Meeting_033017-slides-and-notes.pdf

Alex gave an overview of the Maine Stream Smart Program that aims to maintain stream flow for fish and wildlife while protecting safety with better road-stream crossings. Free flowing streams are especially important in Maine with its recreational fisheries that generates significant income in the state. He noted the York River watershed is impaired for brook trout because of the lack of connection throughout the stream habitat. Small streams are very important because they cover the most miles and provide the best habitat for many of Maine's important fish species.

Culverts affect fish habitat by creating too fast flows, too slow flows, and physical barriers from perched outlets or debris, and they can restrict tidal water flows. Statewide, most culverts are only 30% the width they should be. In Maine, bridges are better suited for fish passage than culverts. He is part of a team that's assessed road-stream crossings throughout most of Maine. 90% of the problems identified on Maine streams are culverts. Alex highlighted the Maine Habitat Viewer and how it can be used to look at specific information for road-stream crossings and barriers. With more intense storm events and sea level rise and storm surge, potential for failure of undersized structures is even greater. He noted USFWS works with communities on stream assessments and stream-smart designs for road-stream crossings.

The Maine Stream Habitat Viewer can be found at: <http://maine.gov/dacf/mcp/environment/streamviewer/index.htm>

- Presentation by Jake Aman (Wells National Estuarine Research Reserve), *See Story Map, an on-line interactive presentation:* <http://arcg.is/2oh8X9y>

Jake noted the York River watershed includes 115 miles of roads. He was part of the 2015 effort to collect data at all York River watershed stream crossings, excluding intermittent streams. Approximately 95 crossings exist in the York River Watershed. 70 have been surveyed and barriers for aquatic organism passage exist at 65 of those surveyed (93%). The Maine Stream Connectivity Work Group developed a decision support tool to help with the prioritization and planning process. It uses a scoring system to evaluate crossings for habitat value and infrastructure condition and importance. The Moulton Brook crossing was rated highest priority. Part of the driver is the importance of Rt. 91 as an evacuation route. Dams, including historic barriers that were noted in the 2001-2003 nonpoint source pollution surveys of the watershed, are included in the assessment. Road crossings over salt marsh/tidal areas are included, however the

methods of the barrier survey do not incorporate tidal restrictions, and so many tidal crossings that are listed as “potential barrier” or “no barrier” may in fact be causing ecological disturbance by restricting and altering tidal flow. There are opportunities to improve tidal flow and factor in sea level rise. He noted, for example, the crossing at Route 91 and Smelt Brook creates a flow barrier at low to mid tide. Other examples of tidal restriction barriers occur on Birch Hill Road/York River crossing, and crossing on Beech Ridge Road/Dolly Gordon Brook crossing. Aquatic organism passage barriers likely exist there too, at low tide.

Though blocked by existing dams, potential alewife habitat exists in drinking water supply ponds, some of which are not limited below the dams. Fish would need fish ladders to access the ponds for spawning habitat.

➤ Presentation by Jim MacCartney (National Park Service), *See presentation:*

<http://www.yorkrivermaine.org/wp-content/uploads/2017/04/Jim-MacCartney-YR-ORV-Mtg-March-30-2017.pdf>

Jim reviewed eligibility criteria for Wild and Scenic River designation – rivers need to be free-flowing for at least the portion of the river under consideration for designation, and possess at least one “outstandingly remarkable value” or ORV. Intermittent streams can be included. Existing infrastructure, including dams, stream crossings, and bank armoring, must be identified and described in the study. He reviewed the three classifications of wild, scenic and recreational rivers, and how the classification can be used to help guide future management decisions. He noted that most rivers with the Partnership Wild and Scenic River designation were classified as recreational rivers for at least a large portion of the river.

Jim discussed several topics needing further consideration: (1) the management plan should address competing ORVs (for example, historic dams and barriers to aquatic organism passage), and (2) whether to include water supply impoundment areas in the designated area. He noted the Lamprey River’s designated reaches (classified as recreational) include river impoundment areas that serve as drinking water supply and the West Branch of the Farmington River includes an adjacent drinking water supply impoundment, though not in the designated area.

➤ Presentation by Judy Gates (Maine Department of Transportation), *See presentation:*

<http://www.yorkrivermaine.org/wp-content/uploads/2017/04/Judy-Gates-York-River-Study-Committee-3-30-2017.pdf>

Judy discussed the DOT workplan process and priorities. Priorities are related to safety, condition, and service. A three-year system work plan is available on the website. Work plans become available in January. Team leaders collect baseline information and are working with the whole team on projects. Aquatic organism passage would be assessed by the preliminary design review stage (~30% review). When reviewing culvert sizing, three hierarchical considerations include: (1) 1.2x bank-full width as starting point; are there site constraints limiting that; (2) Q100 year storm event; and (3) Q50 year storm event. She described the DOT’s Dolly Gordon Brook/Beech Ridge Road project as an example where they reworked project based on input and chose an alternative design.

DOT projects are assessed and given a risk score to prioritize funding and projects. The score is determined by ecological considerations (primarily Endangered Atlantic salmon habitat and other threatened and endangered species), hydrologic and hydraulic considerations (e.g. likelihood of flooding), and structural integrity of the current structure. The workflow for collecting this information in order to prioritize projects and inform structure design is currently being changed, so that these considerations are brought in earlier in the workflow of project designs and scheduling.

➤ Discussion of DPW work plan/infrastructure projects

Dean Lessard (York DPW) stressed the need to speak the same language for structures; a bridge is anything over 20 feet, minor spans or multiple culverts would be in the ~10-20 foot range, and a culvert generally covers a less than 10 foot span. The magnitudes of cost are quite different for the different structures. York has been designing for the 100-year storm since the Mother’s Day Storm in 2006, and replacing with the stream-smart design is the goal. Culverts can still be stream smart. York DPW has been working with Jake Aman to include the data and information he’s made available. He highlighted some recent projects including the completed minor span at Birch Hill Road and Rogers Brook; and the re-

worked minor span for one of the Route 91 projects that changed from a plastic bottom to open bottom for better fish passage that was submitted for grant funding. He noted the DPW is working hard to address water quality impacts of drainage projects, including York Village improvements and Barrell Lane work. Designs include filters, tree wells, and other stormwater management designs to maintain water quality.

David Rich (Kittery DPW) seconded much of what Dean stated, and further stated that public access also is a large factor in his town's work plan priorities. Detours or other delays from infrastructure projects affect decisions and timing. Like York, Kittery DPW is routinely managing stormwater impacts in its projects. Rain gardens, filters for catch basins and other stormwater management practices are incorporated into projects.

Study Committee member Joan LeBlanc thanked the DPW representatives for their proactive work and for sharing information with the Committee. She asked them to share any considerations they might have for the Study Committee to include in the management plan, either now or in the future.