



Fish Passage Workgroup Meeting

Thursday, May 27, 2021
2:00 PM – 3:30 PM

Meeting Link*:

<https://umces.webex.com/umces/j.php?MTID=m9afebdd3755256c4466776532a7ac5d2>

Meeting Number: 120 148 0340

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Conference Line: +1-408-418-9388 Access Code: 120 179 7551

Meeting Materials:

https://www.chesapeakebay.net/what/event/fish_passage_workgroup_may_2021_meeting

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This meeting will be recorded for internal use to assure the accuracy of meeting notes.

AGENDA

2:00 Welcome, Introductions & Announcements – Julie Devers (USFWS) & Mary Andrews (NOAA)

Maryland Culvert Guidance – Jeff Gring (Coastal Resources, Inc.)

Julie Devers introduced the work for a Maryland (MD) Culvert Guidance. In 2018, a collaborative group from MD discussed fish friendly culverts. They decided they needed a communication tool to talk within MD and with partners which led to the idea of the guidance document. They applied for funding through the Chesapeake Bay Program (CBP) Goal Implementation Team (GIT) Funding, and Coastal Resources, Inc. was able to complete the document. As more work is completed in MD, they would like to revise the document to capture what is and not working. The completed document will be available on the [CBP Fish Passage Workgroup page](#).

Jeff Gring presented on the recently developed guidance document. The document began with a literature review and inventory of standards, guidelines, and recommendations used throughout the United States. State Department of Transportation manuals and Drainage Design and Hydrologic manuals were excluded if it did not include material specific to fish passage or aquatic organism passage. The guidance document aims to target a diverse audience including local conservation groups, city and county engineers, highway departments, resource agencies, and the general public. The objective is to inform the importance of stream continuity to the health of MD streams and provide recommendations for crossing structures to improve

or maintain AOP. It is not meant to serve as a technical handbook or design manual and cannot be used as a standalone reference to successfully design or replace a culvert.

The removal of aquatic barriers has multiple ecological benefits including increasing biodiversity and improving riparian buffers. The introduction section explains the importance of stream continuity for aquatic communities. The consequences of poorly designed stream crossings lead to low flow in shallow conditions, clogging by debris and bank sediment, and other issues. The recommendations in the document are based mainly on the geomorphic simulation design approach. The document promotes crossings that are better and “invisible” to aquatic organisms. These recommendations are not regulations, so they are still intended to be used in conjunction with state and regional regulations. The recommendations are broken into 6 sections and each one has an objective, general recommendation, and preferred recommendation. The goal of the general recommendation is to provide overall stream continuity and passage for aquatic organisms. The preferred recommendation should be considered for stream crossings function as a significant crossing and for corridors where crossings of wildlife passage is of greater concern. The 6 recommendations are as follows (more detail can be found [here](#)):

- Crossing type
- Crossing dimensions
- Embedment
- Location, Placement, and Alignment
- Water Velocity and Depth
- Substrate

Additional considerations and financial benefits of aquatic continuity references flood resiliency and higher installation costs, but potential for long-term financial benefits. The guidance document also includes 4 case studies covering a broad range of crossings and stream sizes. While the case studies do not follow all the recommendations in the document, they show real world examples of replacing old structures with open bottom or spanning structures.

Discussion:

Sandy Davis asked if the guidance document was complete, and if so, is there a plan to distribute the information. Julie Devers stated version 1 of the document is almost complete. Jeff Gring has minor revisions to do, but they can make revisions if there are any major red flags. For next steps, they need to come up with a communications plan. She thinks state partnerships have this information, but they need to disseminate it to the counties.

Alan Weaver asked if the MD highway department is receptive to this information since it is recommendations and not guidelines. Julie Devers said they received comments back from HSA that asked for a lot more detail. The State Highway Administration seems more receptive than county public works. They probably will not adopt everything

completely because it could cost them more money. She expects in MD they will need to do some pilot projects alongside them so they can see if the project really does cost more money.

Allen said some of the costs of the recommendations seemed reasonable. He asked if the costs were based off old or newer projects. Julie mentioned a challenge was finding case studies that fit their recommendations on paved roads. Most of the case studies were on dirt roads. Mary Andrews asked if they could include costs for 2021 so accounting for inflation. Jeff Gring said they could do that and include it next to the original costs.

Mary Andrews said one of the issues with the guidance document is that it is AOP focused. It is a good thing, and they intended it to be that way. She thinks a lot of highway departments and Department of Public works is interested in guidance that is multifaceted goals. However, that is a much harder document to write. Julie Devers stated multiple states are using guidance documents similar to this one, and she doesn't think they are producing a document that is very limited. Mary Andrews said that is the value of having the document by it saying it is the best case scenario and sets the stage for where people need to go.

Sandy Davis agrees with Mary's assessment especially regarding the hydraulic panel expectations. She is glad they didn't have to do all of that.

Ben Bradley asked if Julie could comment on the Hydraulic Panel concerns. Are their concerns cost related? Jeff Gring said their major concern was the number of crossing structures that are currently acting as grade controls and the feasibility of applying the recommendations to future projects. There is still a place for sticking to the recommendations in less developed watersheds, and there are more constraints in developed areas. Mary Andrews said some of the road crossings are so constricted that they are offering some minimal flood attenuation benefits because they are storing water during smaller events. By opening the conveyance, they are essentially sending that water downstream. And for some reason, in the state of Maryland, in certain situations, they're concerned about that. So that's another hurdle that they have to kind of get over. Sandy Davis said all these comments are valued, but in the guidance they reference other factors need to be considered. While the recommendations cannot be implemented everywhere, the recommendations provide a framework of where they want to go when it can be implemented.

Mary Andrews asked if members from other states were interested in creating a guidance document for their state. There is an opportunity every year through the CBP GIT Funding to gain money for a project, so there is an opportunity to revise the document for different states. Allen said he is interested, but he would like to lay some groundwork with Virginia Department of Transportation.

Draft 2022 – 2023 Fish Passage Workplan Review – Mary Andrews (NOAA)

Workgroup members are asked to review the workplan before the meeting and provide comments on the draft plan. The full workgroup meeting in the summer will cover additional topics.

The workplan is to explain to others outside of the workgroup what they plan to do in 2022 – 2023. Mary Andrews would like comments by June 4th. She wants projects included in the workplan that has current funding, a responsible party, and is making progress. She would need general information on the project, the timeline, organizations responsible for it, and the location. What is put in the workplan, Mary Andrews is responsible for reporting out each year.

Jessie Thomas-Blate asked if Mary wants projects from PA. Mary Andrews said projects in the CBP watershed. Jessie said she has comments she will send her.

Mary Andrews said projects can be listed as in the planning and design phase if the projects will not be implemented in the workplan timeframe. There are no repercussions by the CBP if a project is not completed.

The full Fish Passage Workgroup meeting is in July. Please send Mary Andrews agenda topics.

3:30 Adjourn

Participants: Breck Sullivan, Julie Devers, Mary Andrews, Jeff Gring, Ben Bradley, Jessica Pica, Katherine Stahl, Megan Ossmann, Sheila Eyler, Jessie Thomas-Blate, Trevor Clark, Sandy Davis, Allen Ure, Alan Weaver, Alex Haro, Leah Franzluebbbers