

**BUREAU OF ENVIRONMENT
CONFERENCE REPORT**

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: July 20, 2022

LOCATION OF CONFERENCE: Virtual meeting held via Zoom

ATTENDED BY:

NHDOT

Matt Urban

Jon Evans

Mark Hemmerlein

Joshua Brown

Arin Mills

Samantha Fifield

Jennifer Reczek

Marc Laurin

ACOE

Richard Kristoff

EPA

Jean Brochi

NHDES

Karl Benedict

Lori Sommer

Christian Williams

NHB

Amy Lamb

NH Fish & Game

John Magee

Federal Highway

Absent

The Nature Conservancy

Absent

**Consultants/ Public
Participants**

Stephanie Dyer-Carroll

Nick Caron

Laurel Stegina

Keith Cota

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

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Finalize Meeting Minutes

Finalized and approved the June 15, 2022 meeting minutes.

Conway, 2019-M301-2:

Arin presented the state funded and executed culvert repair project to a box culvert which carries NH 153 over Page Randall Brook. Page Randall Brook flows ~ 2.2 miles from Libby Mtn to the site, and from the crossing ~ 0.75 miles into Pequawket Pond near the Center of Conway. The Pequawket Pond Dam then enters the Swift River, near the convergence with the Saco River. The location is in a rural area adjacent to DOT Patrol Shed 301, and in the footprint of the previously planned Conway bypass project. Photos were shown of the project site.

Sam described that the purpose of the project is to address roadway safety issues: the existing headwalls are near the travel lane and the guardrail is obsolete. The project will include repointing of existing culvert barrel blocks, full in-kind replacement of the SW wing (inlet), rehab of the remaining 3 wing walls, install top slab extensions over the inlet and the outlet of the culvert to increase shoulder width next to the roadway, and install scour protection at the outlet.

Sam described that construction of the scour protection will include: removal of existing stream bed material within the footprint of the scour pool to a depth of 4' (this material will be stockpiled adjacent to the site for immediate reuse), fill the excavated hole with Class B stone in 12" lifts (stockpiled stream bed material will be used to fill voids between the stone), grade streambed material over the top of the stone to match the invert elevation at the culvert outlet.

The project will be permitted to meet Env-Wt 904.09 as the existing crossing does not have a history of overtopping and will not contribute to flooding. Env-Wt 904.01 will be met, and the crossing will continue to pass the 100-year storm, maintain AOP and connectivity. Draft impact plans were shown where temporary impacts for access and permanent impacts for scour protection at outlet were shown. Approx. 1,700 sf of total impacts are anticipated. The concrete slab extension will be installed over the rehabbed wings and will not result in permanent impacts to the stream. The construction sequence was reviewed to include work starting in the fall with installation of Erosion Control (EC) measures and the clean water bypass pipe (CWB). The structure will be rehabilitated during the winter. Scour stone will also be installed during the winter. During the spring, after the spring thaw, the CWB pipe will be removed, and guardrail will be installed. Next, all temporary EC measures will be removed, and the site will be permanently stabilized. A draft EC plan was shown to include location of dewatering basin/pump, Clean Water Bypass (CWB), perimeter control and sandbag cofferdam.

Arin described the results of the Environmental review which determined Page Randall Brook to be a 3rd order stream (no SWQPA), Tier 3 crossing (1,389 ac watershed), no designated river nearby, no previous permits, no rare species occurrence records (NHB22-0013), and no FEMA floodplain. The Brook is a documented Eastern Brook Trout (EBT) stream and the crossing has a 0.2' perch, 20' wide x 25' long x 3' deep pool at outlet with an existing concrete invert lining. Arin showed additional data collected in July on the scour pool with a primarily sand (60%) and boulder (20%) substrate with a max water depth of ~ 2' near the end of the pool at bankfull and 1.5' in low flow. The stream assessment of the reach determined a max bankfull width of 10', substrate primarily

gravel (70%) and cobble (15%), Rosgen type 'C' and compliant size of 14'. Wildlife Action Plan (WAP) showed surrounding highest ranked habitat and wildlife corridor. USFWS determined potential Northern long-eared bat with 4(d) consistency letter generated, no cultural Section 106 concerns and no US Coast Guard concerns.

Karl B confirmed that this project can be permitted under Env-Wt 904.09. A cross section and longitudinal profile was requested to be submitted with the application to better understand the pre and post construction elevations of the crossing. Karl asked if there were any permanent impacts anticipated along the banks for access? Sam stated that most of the work on the wings and extension will be done from behind the wings. However, all areas within the site that is impacted by equipment will be graded and seeded to pre-construction conditions. Karl mentioned limiting the spread of invasive species and Sam acknowledged. Arin noted no invasive plants were observed in the project area. Karl noted the high composition of cobble in the reach and recommended using similar size stone at the outlet to ensure the material stays in place. Sam acknowledges and said that the stone size intended for the outlet, Class B, is similar in size.

Lori S said no mitigation is required, as proposed. John M asked about the water depth after scour protection stone was installed. Sam said the fill would match the downstream and invert elevation. John asked if the mixed size material could be layered as to allow the spaces to be filled throughout the fill depth. Sam said layering of material is planned. John further asked if stone could be placed slightly above the outlet elevation to allow for backwatering through the structure at low flow. Sam said she would look into that and would need to ensure the hydraulic capacity of the structure is not impacted. John lastly discussed timing as to protect eggs that may be lying on the pool substrate from spawning ahead of construction and not allowing potential eggs to dry out with installation of the CWB and cofferdam. Sam said she could install the cofferdam ahead of October 1st as to preclude spawning within the work area.

Amy Lamb, Jean Brochi and Rick Kristoff all had no comment.

Seabrook-Hampton, 15904 (X-A001(026)):

The fourth Natural Resources Agency Coordination Meeting for the Hampton Harbor Bridge Project was held on July 20,2022. Stephanie Dyer-Carroll with FHI Studio, a member of the HDR consultant team, opened the meeting. She provided a brief update on the status of the project, indicating that the NEPA documentation has been completed, and Section 106 of the NHPA, Section 7 of the ESA and EFH consultations have all been completed. The project is in final design and is moving into the permitting phase. She explained that the selected alternative is a fixed bridge located to the west of the existing bridge.

Nick Caron, an engineer on the HDR consultant team, then provided a summary of the key attributes of the new bridge. He said the bridge will have seven spans on six piers and two abutments. He explained that the new abutments would be located further inland in order to minimize impacts to wetland resources. He said the federal navigational channel would be widened at the bridge to match the width of the entrance channel, and that the bridge would have a vertical underclearance of 48 feet. To mitigate impacts to the Hampton State Pier property to the north, a Section 6(f) resource, a pedestrian path would be installed under the bridge on the north side to provide a pedestrian connection between the State Pier and Hampton Beach State

Park. The bridge would have a closed drainage system with stormwater treatment swales to the northeast and southeast of the bridge.

Mr. Caron explained that during construction the approach roadways would be supported by cofferdams, and four temporary work trestles would be erected to facilitate the construction of the new bridge and the demolition of the old one. The bridge abutments would be supported on steel bearing piles and the piers would be supported on drilled shafts. The steel casings for the drilled shafts would be driven into place and vibrated out. To ensure no sediment reaches the water column, cofferdams would be installed at Piers 1, 2, 5 and 6. The footings at Piers 3 and 4 wouldn't contact the channel bottom so the drilled shaft casings would be employed to provide containment. Water and drilled waste would be pumped to a barge for disposal. There would be minimal dredging of sediments required to widen the channel. Utilities would be relocated by others prior to construction.

Ms. Dyer-Carroll summarized the impacts of the project. She explained that there are no vegetated tidal wetlands in the project area and that the project is using a conservative temporary impact envelope of just over seven acres which is intended to give the contractor flexibility for construction access. She said permanent impacts are estimated to be approximately 0.29 acres due to the installation of drilled shafts and pier footings, fill impacts at the north abutment, and dredging. Ms. Dyer-Carroll said that while the area of potential dredging is 0.39 acres, it's only anticipated that 0.11 acres would actually be impacted by the channel widening since portions of the dredge envelope have depths below the required navigation depth of eight feet. She said 0.02 acres of the permanent impact would be to a blue mussel bed on the north side of the channel. She further explained that the removal of the existing piers and rip rap would allow for native material to be restored over time. She said the project would also result in impacts to the Tidal Buffer Zone, Top of Bank, and regulated Shoreland.

Ms. Dyer-Carroll then explained that there would also be impacts to state-listed plants, federally regulated avian and aquatic species, and EFH and Trust resources. She said mitigation measures have been identified through the EFH and Section 7 consultations, and a mitigation plan to address impacts to state-listed plants will be developed in support of the permitting process. NHDOT anticipates that the NH Aquatic Resource Mitigation (ARM) Fund will be used to mitigate wetland impacts. Ms. Dyer-Carroll explained that the Project Team has reached out to the Hampton and Seabrook Conservation Commissions to request recommendations for local mitigation projects as well.

Ms. Dyer-Carroll then shared a list of permits and proposed schedule. She requested that the regulatory agencies let the Project Team know if the assumed review times as presented were not realistic. She presented next steps, including resurvey of the highest observable tide line (HOTL) at the lunar high tide, resurvey of the blue mussel bed, and resurvey of the state-listed plants within the project area. She said that following the plant survey, the Project Team is planning a site walk with NH Natural Heritage Bureau (NHNHB) to discuss mitigation. She said the Project Team plans to return to the Natural Resources Agency Meeting in October and hold individual pre-application meetings with NH Department of Environmental Services (NHDES) and the US Army Corps of Engineers (USACE), as necessary.

Ms. Dyer-Carroll concluded the presentation with a question for the regulatory agencies. She explained that sediment sampling was undertaken in 2018 as part of the maintenance dredging of the Hampton and Seabrook Channels. The grain size analysis indicated that chemical testing was not necessary. She said the Project Team wanted to confirm that the 2018 data could be used for the Seabrook-Hampton Bridge Project and that sediment sampling would not be required. She pointed out that sediment sampling was not required for the permitting of the recent Jetty project adjacent to the project site. Rick Kristoff (USACE) said that it is on a case-by-case basis. He said he will check with their Analysis section regarding the sediment for the past navigation projects in Hampton Harbor. Jean Brochi (EPA) said they also consider it on a case-by-case basis. Karl Benedict (NHDES) suggested that the Project Team follow up with Chris Williams on this question.

Mr. Benedict, speaking on behalf of Eben Lewis who wasn't able to attend, said that the project will be categorized as a "Major Project" and that it will require Governor and Council approval. He said Mr. Lewis wanted to highlight the applicable NHDES Administrative Rules the Project Team should be addressing for this project, including:

- Env-Wt 603.04 – Coastal Functional Assessment
- Env-Wt 603.05 – Vulnerability Assessment
- Env-Wt 603.06 – Project Design Narrative
- Env-Wt 603.08 – Water Depth Supporting Information
- Env-Wt 605.02 – Additional Requirements for Projects In or Adjacent to Tidal Waters/Wetlands and Tidal Buffer Zones as related to Env-Wt 313.04
- Env-Wt 605.03 – Impacts Requiring Compensatory Mitigation

Mr. Benedict said that the Project Team should be mindful of the fact that a new wetland delineation will need to be done after five years; the wetland delineation for the Project was completed in 2018. He then asked what the proposal is for water quality monitoring during construction. Mr. Caron said they are planning for water containment with cofferdams to prevent leakage into the harbor. Mark Hemmerlein (NHDOT) suggested the Project Team review the Best Management Practices (BMPs) from the Water Quality Certifications for the dredging projects. Mr. Caron said protocols would be established with the contractor to ensure compliance. Mr. Benedict recommended a pre-application meeting that includes representatives from each of the NHDES programs, including Coastal staff.

Lori Sommer (NHDES) asked about impacts to the Tidal Buffer Zones. Ms. Dyer-Carroll said they had not been quantified yet. Mr. Caron said the Project Team will quantify the impacts once the HOTL has been resurveyed. Ms. Sommer asked about the proportion of developed to undeveloped areas within this zone. Mr. Caron said that the entire southwest quadrant is undeveloped and that they will need to quantify impacts. The northeast and southeast quadrants include existing roadway and natural bank down to the HOTL. He said the State Pier lies to the northwest and that it is primarily paved. Ms. Sommer then asked how long the temporary trestles would be in place. Mr. Caron said those on the west side would be in place for approximately 1.5 years for the purpose of installing the new substructure and constructing the steel girders. Then the trestles would be removed. The second set of trestles would be in place for less time for demolition of the existing bridge and clean-up of the channel bottom. Ms. Sommer said that she

agrees with the approach to use the ARM Fund for permanent wetland impacts. She noted that any impacts sustained for more than a year are considered permanent and will need to be mitigated as such. Mr. Kristoff agreed.

John Magee (NHFG) asked who from his agency has been involved in early coordination meetings. Ms. Dyer-Carroll said that Brendan Clifford had been involved in the Section 7 consultation regarding impacts to piping plover. Ms. Dyer-Carroll said Carol Henderson had attended the Natural Resources Agency Meetings, but that she believed Cheri Patterson was involved in coordination related to a potential historic clam bed, but that a benthic study was conducted and resulted in a finding of no presence. Ms. Dyer-Carroll said she would confirm and get back to Mr. Magee.

Amy Lamb (NHNHB) asked about the presence of eel grass in the project area. Ms. Dyer-Carroll said that the Project Team communicated with Fred Short early in the project and he indicated there were no records of eel grass in the area. Ms. Reczek said that the flow within this area is high velocity and not conducive to eel grass establishment. Ms. Lamb asked that the Project Team provide her with a copy of the correspondence with Mr. Short. Ms. Lamb noted that the subtidal habitat is considered an “exemplary natural community.” She asked how they will proceed with the handling of the dredge spoil. Ms. Dyer-Carroll said that once the team has a greater understanding of the volume, either a disposal or a mitigation plan will be developed. Ms. Lamb then asked for additional details about the fill around the abutments and the path. Mr. Caron explained that a path is planned that would wrap around the abutment; however, the fill around the abutments is necessary to stabilize the slopes and to bring the grade up for connectivity between the two state parcels. The fill footprint is enlarged slightly as a result of the path. Mr. Caron said that dredge material would not be suitable at this location due to the slope. Ms. Reczek added that the path is a mitigation measure for the Section 6(f) impacts. Ms. Lamb asked if, once the existing bridge is removed, there is a plan to relocate listed plants to this location. Mr. Caron said that a vegetated swale is proposed for this area to treat stormwater.

Jean Brochi (EPA) said that the timeline for permitting looked good. She suggested a site visit be coordinated so the agencies can understand what is being reassessed. She said she concurred with USACE that if the trestles were in place for more than one year, they would need to be permitted as permanent impacts. She asked how the temporary trestle had been realigned to avoid the blue mussel bed. Mr. Caron explained that one of trestle fingers was shifted to the south side of the work area to lessen impacts. Mr. Hemmerlein asked if the new bridge could be constructed without the trestles and, instead, use the existing bridge. Mr. Caron said that the existing bridge would be used during construction to maintain traffic flow. Due to the overhead limits of the cranes, four trestles would be required. Construction could not be completed with just two. It would be difficult to access the existing bridge from the opposite side due to overhead clearances from the proposed structure above the trestle and the reaches needed from the proposed bridge work trestles to the existing structure elements. He said that the duration of use of the trestle to remove the existing bridge is anticipated to be six to eight months.

Mr. Benedict asked how the utilities would be permitted. Mr. Caron said they are still coordinating on this but that the utilities adjacent to the bridge will be permitted separately, but there will be coordination. Mr. Caron said the temporary impact envelope includes the location of the utilities.

Ms. Brochi said that she would like to be included in discussions about how the dredged material is disposed of or used as part of the project, such as for beach nourishment. She said that beach nourishment is typically included in the USACE dredging project, and she asked if the USACE project would be amended to include this. Mr. Hemmerlein said the harbor is dredged every nine to ten years and that the material is used for beach nourishment. He said the next maintenance dredge aligns with the end of this project and asked if they had looked at combining with the maintenance dredge. Ms. Reczek added that a portion of the impact area is below the elevation that is maintained by the federal navigation project. A bathymetric survey was just conducted, and the data is still being reviewed. She said there is potential for a small amount of eligible dredge material. It was also noted that traditional dredge equipment, such as hopper dredge, would not be used, but instead smaller-scale equipment.

Ms. Sommer asked if the construction duration could be reduced to less than one year. Ms. Reczek said more than a single construction season would be required due to the size of the bridge. There was additional discussion about disposal sites, including offshore options. It was noted that the name of the disposal site should be included in the permit application. Ms. Sommer asked how impacts would be calculated, specifically whether the entire envelope would be considered permanent impact or whether it would be the footprint of the piles. Marc Laurin (NHDOT) suggested they calculate the permanent impact areas by the square footage of the piling footprints, as they'd discussed on the New Castle-Rye Bridge project. Richard Kristoff (USACE) said they would also need to consider shading impacts, for salt marsh or eelgrass for example. Ms. Brochi asked the duration of the impact for the New Castle project and said this was key. Mr. Laurin said it was just anticipated to be a season. Jennifer Reczek (NHDOT) noted a percentage of the area outside the pier footprints, but within the seven acres, could be considered the area of permanent impact since they aren't exactly sure where the piles would be placed. Ms. Sommer said this is a good approach and suggested another conversation once revised permanent and temporary impacts are estimated.

Mr. Hemmerlein asked about next steps for the agency decision on whether sediment testing is needed. Ms. Brochi said, based on the Environmental Assessment, she understood the dredge spoil would be taken to the Isle of Shoals disposal site. If this has changed, that needs to be provided to the agencies for review. Ms. Reczek said that the recent USACE dredge project used the dredge spoil for beach nourishment. If the spoil is used for beach nourishment, it will need to be determined if this use is an impact (fill) or mitigation. It was suggested that a meeting be scheduled with agency staff who perform "suitability determinations" after the amount of dredge material is quantified. Ms. Dyer-Carroll asked if a letter with supporting documentation should be submitted and then the agencies could provide a written response. Ms. Brochi suggested the Project Team provide a graphic depiction of the proposed approach for the agencies to respond to; for example, showing how the dredged material would be used to mitigate for impacts to plover habitat. It should include the volume of material to be used for mitigation and how much would be otherwise disposed of. Ms. Reczek said the volume of dredge material is anticipated to be small. A precise volume will be developed with the new bathymetric data.