BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: December 21, 2022
LOCATION OF CONFERENCE: Virtual meeting held via Zoom

ATTENDED BY:

NHDOT
Matt Urban
Andrew O'Sullivan
Jon Evans
Joshua Brown
Mark Hemmerlein
Kerry Ryan
Marc Laurin
Rebecca Martin
Dillan Schmidt
Chris Carucci
Kirk Mudgett
Melilotus Dube
Corey Spetelunas
Margarete Baldwin
Arin Mills
Samantha Fifield
Hans Weber
David Scott
Trent Zanes
Timothy Dunn
Anthony Puntin
Kerry Ryan
Rhona Thompson
Leah Savage
Thinh Tran
Dzijeme Ntumi

ACOE
Mike Hicks

USCG
Gary Croot

EPA
Absent

NHDES
Karl Benedict
Eben Lewis
Christian Williams

NHB
Ashley Litwinenko

NH Fish & Game
Mike Dionne
Kevin Newton

Federal Highway
Jamie Sikora

US Fish & Wildlife
Absent

The Nature Conservancy
Absent

NH Transportation & Wildlife Workgroup
Absent

Consultants/ Public Participants
David Munro
Andrew Judd
Kevin Slattery
Roch Larochelle
Keith Cota
Audrey Beaulac
Jim Bouchard
Sam Cheney
Dawn Tuomala
Kyle Fox

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

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Finalize Meeting Minutes

Finalized and approved the November 16, 2022 meeting minutes.

Loudon, 44011 (X-A005(284)):

Dillan Schmidt discussed the overall project location, culvert locations, and existing culvert dimensions. Dillan proceeded to discuss the identified environmental resources within the project area and a brief update on status of coordination and field work. Dillan discussed the potential wildlife corridors within the project area as shown on the wildlife corridor map.

Chris Carucci began his presentation discussing the project location in greater detail, providing information on the culvert conditions and ages, roadway condition and classification, and traffic counts. Chris described why the proposed culverts have been selected for the culvert program including road tier, traffic volume, and structural condition, as well as the risk of failure.

Location One:

Chris provided an overview of location one, including culvert location, dimensions, slope, depth, drainage area, and the potential bypass path. Chris continues to discuss location one, including the outlet condition and the depth of the outlet under wetland grade and the existing sedimentation at the outlet end of the pipe. Chris continues to show photos of the location one area, including the inlet area and the associated wetland, the inlet pipe with stone headwall, the interior of the pipe, large wetland behind outlet, and the outlet pipe with sediment and severe erosion at the outlet. A profile view is shown of the location one pipe, with bypass elevations plotted. The high-pressure gas line is shown on the profile, Chris indicated that the dent in the pipe limit the liner size. Chris then continues to discuss the alternatives for location one including the no build option, the replacement option, noting that either would not be feasible due to the pipe deterioration and the risk of a sinkhole at the outlet as well as the depth under the pavement and associated impacts to traffic, utilities, and other resources. Sliplining is the preferred treatment, all sliplining options assume sliplining the full length of the existing culvert and constructing a stone apron at the outlet. Chris indicates that the 24” metal liner is the preferred option. Chris then moves on to discuss preliminary wetland impacts, displaying the delineated wetland and the proposed temporary impacts at the inlet, as well as the proposed access, clearing, and permanent and temporary impacts at the outlet. Chris indicates that LRS generated would be spread on slopes and within the ROW.

Location Two:

Chris begins discussing the 18” CMP at location two, indicating that the pipe connects two wetlands and that we have not been able to locate this pipe through field reviews however we know it is there due to archived plans and a model indicating likely flooding to an upstream property in the absence of the pipe. Chris displays a street view image of the pipe location in the roadway, assuming its 1-2 feet below the ponded or wetland elevation. Chris then displays a profile view, discussing the existing and proposed replacement. Chris indicated that sliplining would not be practical as we would not want to leave the pipe below wetland elevation and the preferred alternative for location two would be replacement with a 24” plastic pipe at a higher

elevation, noting the higher elevation would shorten the overall length of the pipe. Night work would be conducted to avoid significant traffic disruptions. Chris indicated that the smooth plastic pipe is preferred in wetland settings where velocity is low, and pipes tend to be submerged. Chris continues to discuss proposed wetland impacts, stating that due to the proposed pipe being above wetland grade, there would be no permanent impacts. There would be temporary impacts on the inlet and outlet sides due to erosion control and cofferdams, noting that the wetlands are seasonally flooded and may be storing water at the time of construction.

Location Three:

Chris begins discussing the 43x27" CMP at location three, indicating that the pipe connects two wetlands. There are no headwalls or end treatments on the existing pipe, gas line is present, no history of flooding or damage. Chris displays site photos, including the pipe location on the roadway, the inlet, inside the pipe showing missing inverts, outlet and sedimentation inside the pipe. Chris displays the profile view, discussing bypass elevations, desirable headwater ratio, depth of excavation, the lack of practicality with dredging the outlet, and that the new pipe would naturally accumulate sediment over time. A 30" RCP was originally proposed; however, Chris indicates that with a proposed 36" RCP, the increased openness ratio would be a benefit to turtle passage. Night work would be conducted to avoid significant traffic disruptions. Chris then discussed proposed temporary and permanent impacts at the inlet and outlet needed for erosion control and channel match.

Summary:

Chris provides a brief summary of the overall project including the proposed advertisement date of May 23. 2023 and a proposed construction timeframe of two months, beginning in September of 2023. Chris indicated that all work would be within the existing ROW, no anticipated impacts to invasive plant species, LRS would be managed under the department's de minimis stipulations, night work would be required to accommodate alternating two-way traffic. The estimated disturbed area is 1.03 acres, estimated permanent impacts are 355 SF, estimated temporary impacts are 4,981 SF, combined total and temporary impacts are 5,336 SF.

Chris then opens the discussion for comments and questions from the various agency attendees.

Q/A:

Karl Benedict NHDES: Karl starts with location three: looks good, no comments. Location two: comments include potential elevation difference for the pipes, commenting on requirements to not impact adjacent properties. Please include something in application to address this. Looks like you have addressed the potential for perch being that the elevation is raised there and is noting turtles in the area, indicating that a closer look may be conducted there.

Location one: at the outlet location, wetland labeled as PEM1EI would like to dig into that wetland classification a bit more, it definitely looks emergent, as far as impacts there, appears most significant throughout project. Looking to see about potential excavation, looks pretty marshy down there. My comment would be if there is any potential to reduce impacts there. Wondering how much maintenance is required there, especially if the guardrail is being removed

for access. Commenting on that one potential impact and the need for scour protection. It appears that this would be for maintenance in the future.

Chris Carucci, NHDOT: Based on the 11% slope and calculated velocities, we would normally have outlet protection. The reason it's probably holding sediment now is that there probably has not been a 50 year or a 100-year storm recently here so the sediment tends to build up, but we could get a higher-level storm at some point. Calculations are showing outlet velocity of 19.1 ft/sec and based on that and the slope, a stone apron seemed wise just to make sure that it didn't scour the bottom of this slope in some large storm event. It's a side benefit to have a delineated area for NHDOT future maintenance such as if we needed to wash this pipe out, with a stone apron, it wouldn't be a wetland impact. Whereas if we wanted to go down and clean this out today, it would be a wetland impact.

Andrew O'Sullivan, NHDOT: Chris, you probably incorporated that as a BMP as well too, like something we would use when we look at routine roadway maintenance and other items like that.

Chris Carucci, NHDOT: Theoretically anything that has a 20 ft/sec outlet velocity or about that would usually get some stone.

Andrew O'Sullivan, NHDOT: Okay

Karl Benedict, NHDES: Thanks for running through that, and the velocities too. It seems reasonable commenting on the potential minimization, but it seems that you've covered that pretty reasonably. Obviously, this is not a pipe that we can bring out of there at all. I think I will defer comments from here the only remaining one would be clarification of wetland classifications; do we have streams running through here? WPPT looks like there are maybe shows some drainage areas, I know you have summarized the areas, but maybe classifications and what I'm getting at is addressing the 900 rules if needed on this. I would like to dig into that a little more.

Andrew O'Sullivan, NHDOT: Karl, we identified as a pipe connecting wetlands on both sides, so we stayed out of the 900 rules specifically based on our field observations.

Karl Benedict, NHDES: Thanks for covering that, I would agree. Past that, I would defer our comments so thank you.

Mike Dionne, NHFG: Good project overall, I don't have many concerns the only note I made is.. (Before Mike gave his comments, Kevin Newton, NHFG let Mike know that NHFG has reviewed this project with NHDOT through FIS 1004 and that he just wanted to let Mike know before he gave his comments) I was just going to echo at location 2, just be mindful of the inlet and outlet elevations for terrestrial passage.

Andrew O'Sullivan, NHDOT: Mike Hicks (ACOE) is not here today, I don't see Jamie (FHWA),

Gary Croot, USCG: No navigable water impacts so the coast guard does not have any jurisdiction here.

Warner-Sutton, 15747 (X-A000(942)):

Wolfeboro, 2022-M311-1:

Arin introduced the Wolfeboro culvert replacement project #2022-M311-1 as a state funded and executed project along NH 109A in Wolfeboro. The project will replace two failing 24" Corrugated Metal Pipes (CMPs) and one 15" CMP. The project is in the headwaters of Harvey Brook, although field delineation determined no stream crossing at the project location. The water flows easterly and eventually forms Harvey Brook, flowing under NH 109/28 and enter Lake Wentworth approx. 6.8 miles downstream. The 24' pipes are functioning as equalizer pipes and the wetland complex, at the inlet of the 24" pipes, is not connected to the wetland that inlets into the 15" pipe, a narrow rise of land is between the systems and an aerial image including topography was shown. The project is in a rural residential area with no conservation lands adjacent. Photos were shown of the project location.

Sam provided a project overview to include the replacement of two 24" CMPs with two 30" reinforced concrete pipes (RCPs) and one 15" CMP with one 15" RCP in the same location as existing. The pipes shall be nearly the same length as existing. The replacement could have been completed under the Culvert Maintainer program, had it not been for the temporary impacts to prime wetlands adjacent to the crossings. Sam showed wetland impact plans to include a total of 389 sf of temporary wetland impacts to PSS1/EM1H. Sam described the 24" pipe impacts were connected as the work is in very close proximity and will be done at the same time. Concrete pipes will be installed as the pipes are submerged in water, and at the time of previous emergency permit concrete was not available. Arin mentioned 366 sf of impacts are within prime wetland, as the inlet of the 15" CMP is outside prime wetland designation.

A brief construction sequence was described by Sam as installation of temporary erosion control measures of perimeter controls, sandbag cofferdams and sediment basins. Traffic along the roadway will be maintained using single lane alternating two-way traffic patterns while the culverts are removed and replaced, one side at a time. Once all three pipes have been replaced, permanent erosion control measures will be placed, the roadway will be re-built, temporary erosion control measures will be removed, and the site will be cleaned up.

Arin described the results of the environmental review to include the drainage area, as at initial review it was anticipated the project would include stream impacts. A field review determined no stream resources are present in the project area. A previous emergency permit (2009-00649) replaced previous failing metal pipes with new metal pipes. NWI map was shown, with delineation determining PSS1/EM1H within project area. Natural Heritage Bureau review NHB22-3079 determined no known occurrences of rare species. Predicted Priority Resource Areas (PRA) predicted bog, although no bog was determined present based on field survey. The project will be classified as Major due to temporary impacts to Prime wetlands. A functions and values assessment was completed and determined the following principal functions/values: Wildlife, Nutrient Removal, Sediment/Toxicant Retention and Uniqueness (Prime). No permanent impacts to the functions and values are anticipated as all impacts are temporary and in same footprint as the existing pipes, and the 24" pipes will be up sized to 30". The Aquatic

Restoration Mapper was shown with full aquatic organism passage and wetland geomorphic compatibility. Habitat ranking shows no priority habitat or wildlife corridor in project area. The crossing is adjacent to a 100-year FEMA floodplain. US Fish & Wildlife coordination predicted Northern long-eared bat and no impacts are predicted. Arin acknowledged the recent up-listing of the bat and said consultation would be completed, although 4(d) concurrence was reached currently. Section 106 for historic resources has no concerns.

Karl Benedict acknowledged no impacts to functions and values, replacement in-kind and agency coordination. He asked about coordination with local Conservation Commission (CC). Arin said a letter was sent to Wolfeboro's CC and no response has been received. She also mentioned following up with a phone call, where she left a message, and has yet to receive a return phone call from the CC.

Michael Dionne, Kevin Newton, Gary Croot, and Jamie Sikora had no comment.

Mike Hicks commented to ensure endangered species and Section 106 review is complete and included in the application.

Andover, 20650 (X-A002(084)):

Hans Weber presented the project, the replacements of the NH Route 11 bridge over the Northern Rail Trail (the former Boston & Maine Railroad's Northern Railroad), and the NH Route 11 concrete arch culvert that spans Sucker Brook. He briefly discussed the alternatives considered. A Northern Alternative that shifted NH Route 11 to the north would require replacement of both bridges, would require a temporary bridge over Sucker Brook, would have greater costs, construction time and wetland impacts, and was considered less desirable.

The Proposed Action (the Southern Alternative) would shift the NH Route 11 alignment to the southeast and would replace the NH 11 Rail Trail bridge and the Sucker Brook culvert by constructing one bridge that would span both the Rail Trail and Sucker Brook. A Public Hearing is anticipated to be held in July 2023.

Approximately 7,500 square feet of permanent impacts to wetlands would occur, mainly due to the shift of the roadway to the southeast. Due to the removal of the concrete arch culvert, temporary impacts to 150 linear feet of Sucker Brook is anticipated. The project would regrade the slopes to match the surrounding area and original topography, these restored banks may need to be armored. The natural streambed spanned by the culvert would remain and may need to be augmented with simulated streambed material along the re-graded slopes. The shift of the alignment would permanently impact about 100 feet of an intermittent stream located near a field drive west of the rail trail bridge would be culverted under the new NH 11 alignment.

The new NH 11 alignment would consist of 11 foot travel ways with 5 foot shoulders, resulting in about 3,000 square feet of additional pavement. A proposed grass treatment swale, to be located west of the bridge between the old roadway and the new alignment, would treat 6,000 square feet of roadway.

An acoustic survey was completed and did not identify the presence of the Federally Endangered Northern Long-eared Bat, as such, a determination of "Not Likely to Adversely Affect" has been made. The potential for the presence of Small Whorled Pogonia, as noted on the USFWS's IPaC Species List, was reviewed with the NH Natural Heritage Bureau's layer package for the species and was not identified as occurring within the project area. No State-listed species were identified in the NHB database search.

Karl Benedict asked that the stream restoration be separated from the roadway impacts. If the impacts would be greater than 5,000 square feet a planting plan may be required be developed. The plantings should match the upstream conditions. A restoration plan for the bed should match the existing bed. He asked about the intermittent stream impact. Hans replied that the design would address Tier 1 requirements.

Mike Hicks had no comments.

Jamie Sikora noted that this project was similar to the Danbury project, which is also replacing a rail trail bridge, and would require a full blown Section 4(f) evaluation and coordination on the trail and the historic impacts. Hans replied that DOT has been coordinating with the Friends of the Northern Rail Trail and the Bureau of Trails, and will continue coordination with NHDHR on the historic impacts and mitigation.

Gary Croot stated that a navigational determination by the USCG has not yet been made for Sucker Brook, but it would likely not be a concern.

Hampton – NH Route 1A (Ocean Boulevard), #40797 (X-A001(026)):

Provided below is a summary of the Hampton 40797 NH Route 1A, Ocean Boulevard Natural Resource Agency Coordination Meeting #1. The meeting was held virtually via NHDOT Zoom conferencing.

Ms. Beaulac opened the presentation of the project by presenting the slide deck to the meeting participants, touching on the project limits and corridor segments, purpose and need, and project goals and objectives. Ms. Beaulac then handed over the presentation to Mr. Slattery who reviewed resources found to be in the area and summarized the resource work on the project performed to date. Mr. Slattery indicated the research done to date is preliminary and field research is still to be performed. Ms. Beaulac continued by reviewing the conceptual alternatives for the roadway corridor segments and the intersections being evaluated, the project design schedule and next steps.

Karl Benedict, NHDES, deferred to the coastal professionals (Mr. Lewis and Mr. Williams) for their comments.
Eben Lewis, NHDES NH Coastal Program, informed the design team the coastal wetlands along the backside of NH Route 1A is town designated Prime Wetland which is associated with a 100' buffer. Mr. Lewis also noted Shoreland Protection Act compliance will be required and to consider the need for a vulnerability assessment for sea level rise. He added by saying the project will likely be considered a Major Impact Project and will require a wetland and coastal

functional assessment. Mr. O'Sullivan asked if the shoreland buffer from the ocean and the salt marsh would overlap. Mr. Lewis indicated they would.

Chris Williams, NHDES NH Coastal Program, indicated he had no significant concerns at this time. He asked if there would be a climate change/resiliency/sea level rise portion to this project, and that would need to be part of the vulnerability assessment. Ms. Beaulac and Mr. Cota indicated the focus of the project is pedestrian, bicycle and traffic management and that sea level rise was not a major project component. They noted improvements will look to manage the impacts for sea level rise and profile adjustments would be made where feasible and practicable within the project limits. Mr. Slattery noted that the project's stormwater management evaluation would also consider the resiliency.

Mike Dionne, NHFG, noted any work within wetlands would require further future review.

Kevin Newton, NHFG, indicated he would be interested in more information about equipment staging areas and time of year for work, and a schedule as the project progresses.

Mike Hicks, USACE, asked if there was a schedule for the project yet. Ms. Beaulac indicated a draft schedule was recently sent to NHDOT. Mr. Hicks noted he would follow up with NHDOT for the schedule.

Jamie Sikora, FHWA, asked for confirmation that the seawall would not be impacted and noted if it was to be impacted to make sure there was coordination with FHWA. Mr. Cota indicated that the current project design objective is to hold the curb line along the easterly sidewalk adjacent to the seawall while maintaining the existing seawalls.

Gary Croot, USCG, indicated he had no issues as the Hampton Bridge at the southern project limits is not impacted by this project.

Ashley Litwienenko, NHB, asked for confirmation there were no impacts to the salt marsh system. Mr. Slattery noted there could be impacts due to the stormwater review and proposed BMPs that may require impacts to outfalls located within the salt marsh system. Mr. Cota added there may also be impacts to the salt marsh system along the Ocean Boulevard roadway segment adjacent to Boar's Head near the back salt marsh encroachment. Ms. Litwienenko asked the design team to provide information as to extent of impacts to NHB including project photos when available.

Mr. O'Sullivan asked if there were any further items for discussion and hearing none closed this project's portion of the Natural Resource Agency Coordination meeting.

Merrimack #41588/29174

Samuel Cheney (Sam), Quantum Construction Consultants, LLC, (QCC) presented the proposed project. The project corridor is approximately 1,300 linear feet of roadway with an approximately 66-foot Right-of-Way (ROW) that widens at the Wire Road intersection. The roadway consists of two (2) 12-13 foot travel lanes, two (2) 6-foot shoulders and a 10-11 foot turn lane. Sam explained that the purpose of the project is to improve safety and traffic

operations within the project corridor limits. The need for this project is to address safety and traffic concerns by implementing safety improvements along the corridor and providing a more efficient intersection to improve the flow of traffic along U.S. Route 3 within the project limits.

Jim Bouchard (QCC) explained that the Merrimack #41588 project will be combined with the Merrimack #29174 project during the preliminary design phase. The Merrimack #29174 project involves the replacement of the U.S. Route 3 over Baboosic Brook Bridge (NHDOT Bridge No. 118/135). BETA Group Inc. (BETA) is the design engineer for the U.S. Route 3/Wire Road safety & capacity improvements. Once BETA has completed the engineering study for the Merrimack #41588 project, it will be incorporated into the Merrimack #29174 project.

Sam explained the four (4) intersection/roadway alternatives that BETA developed based on the project's traffic analysis. Alternatives being studied include a no-build option, stop-controlled option, a signalized option, and a roundabout option. The signalized option is the recommended alternative. The U.S. Route 3/Wire Road intersection will be realigned closer to a 90-degree angle for improved site lines, with the installation of a new fully actuated traffic signal for traffic and pedestrian movements. Pedestrian sidewalks will be constructed on the east side of U.S. Route 3, and the existing sidewalk on the west side will be extended. A new access/egress driveway to the Merrimack Youth Association will be constructed. It is recommended that the existing U.S. Route 3/Church Street access road be closed due to a steep 15% grade, and because there are already two other access points to Church Street via Baboosic Lake Road and the Merrimack Library parking lot. Additional work includes drainage relocation/improvements, box widening, pavement milling and overlay, and guardrail installation.

Sam stated that QCC submitted a request for project review to the NH Natural Heritage Bureau (NHNHB). The NHNHB had no comments relative to the proposed project, but identified documented instances of endangered vertebrate species within the vicinity of the project area. The NHB DataCheck letter stated that additional documentation needs to be submitted to New Hampshire Fish & Game (NHF&G) so they can review the project for potential impacts. To this end, QCC will coordinate with the New Hampshire Fish & Game (NHF&G) Department during the preliminary design phase to ensure the project will not adversely impact endangered species/species of special concern. Sam added that a United States Fish & Wildlife Service (USFWS) IPaC search was conducted for the project area, and a Letter of Verification was received from the USFWS stating the proposed project would not adversely impact federally-listed endangered species, and that QCC's responsibilities under ESA Section 7(a)(2) are concluded.

Sam concluded the presentation by discussing potential impacts to abutting properties. The proposed alternative of a signalized intersection would cause minimal impacts to abutting properties, due to the majority of work occurring within the existing Right-of-Way (ROW). The Town will negotiate permanent and temporary easements with the affected property owners. Easement documents will be developed and included at the time of the environmental permit application submissions.

Karl Benedict (NHDES) stated that should the project follow the Stormwater Quality Protection Act (SWQPA) and the AoT Administrative Rules for submission of the NHDES Shoreland and AoT permit applications, he would have no further comments relative to the project. The project does not propose any wetland impacts, so there is no need for an NHDES Standard Dredge & Fill Permit.

Mike Dionne (NHF&G) had no comments relative to the project presentation.

Kevin Newton (NHF&G) stated that he was anticipating that NHF&G would have comments on the proposed stormwater infiltration systems following their review of the AoT permit

application, based on the NHB's determination that there were records of endangered/species of special concern within the vicinity of the project area. The NHF&G prefers open drainage systems over closed drainage systems, thus he anticipates that there will be additional consultation with NHF&G required during the preliminary design phase. QCC will continue to coordinate with the NHF&G during the preliminary design phase of the project relative to proposed drainage improvements.

Michael Hicks (Army Corp. of Engineers, ACOE) had no comments relative to the project presentation.

Gary Croot (U.S. Coast Guard) had no comments relative to the project presentation.

Kyle Fox and Dawn Tuomala (Town of Merrimack) had no comments relative to the project presentation.

Tony Puntin (NHDOT) is the NHDOT Project Manager for the proposed project and did not pose any questions or comments.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.