BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: October 21, 2020
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Sarah Large
Matt Urban
Andrew O'Sullivan
Ron Crickard
Mark Hemmerlein
Jon Evans
Wendy Johnson
Jon Hebert
Dan Prehemo
Wayne Brooks
Marc Laurin
Kirk Mudgett
Tobey Reynolds

ACOE
Rick Kristoff

EPA
Jean Brochi

NHDES
Lori Sommer
Karl Benedict
Ann Pelonzi

NH Fish & Game
Carol Henderson

NHB
Amy Lamb

The Nature Conservancy
Pete Steckler

Consultants/ Public Participants
Stephen Hoffmann
Christine Perron
Mike Long
Rob Faulkner
Peter Walker
Hannah Beato
Rhett Lamb, City of Keene
Donald Lussier, City of Keene
Barbara Skuly, ARLAC

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

(When viewing these minutes online, click on a project to zoom to the minutes for that project.)

NOTES ON CONFERENCE:

Finalize Meeting Minutes
Finalized and approved the September 16, 2020 meeting minutes.

Nashua-Merrimack-Bedford, #13761D
Rob Faulkner provided an overview of the proposed project. The 13761D project is part of the larger 13761 project that includes widening three segments of the existing 2-lane portions of the F.E. Everett Turnpike in Nashua, Merrimack, and Bedford, New Hampshire. The overall project includes adding an additional travel lane in both the northbound and southbound directions and the rehabilitation or replacement of five bridges. The project does not include reconstruction/reconfiguration of the existing interchanges or any modifications to the tolling. The project will help improve mobility, provide congestion relief, and improve safety along the corridor.

The 13761D project encompasses the northern segment located in the Town of Bedford, NH. This segment of the project begins north of the Exit 13 (Bedford toll plaza) interchange and continues north for approximately 1.3 miles through the 1-293/NH Route 101 interchange. The 13761D project proposes to widen the roadway from two to three lanes in each direction through the addition of a northbound and southbound travel lane. Existing travel lanes will receive a mill and overlay pavement treatment. There are minor modifications to the ramps at the 1-293/NH Route 101 interchange required to accommodate the widening. There is no proposed bridge work associated with the 13761D contract. The project also includes drainage improvements that will meet the MS4 requirements to the extent practical. The project is currently scheduled to advertise in Summer 2021 and associated permit applications will be submitted to NHDES in December 2020.

Stephen Hoffmann provided an overview of the environmental resources that are located in the vicinity of the proposed project. Environmental resources/concerns located in the vicinity of the project include: wetlands, surface waters, stream crossings, water quality/surface water impairments, rare species (state and federally listed), and floodplains. Wetlands are the only resource that are anticipated to be impacted by the 13761D project.

Wetlands were delineated in 2016, 2017, and most recently in 2020. The proposed project will result in approximately 9,651 SF of wetland impacts with no impacts to existing streams (impacts will continue to be refined throughout the final design process). Due to design changes and other minimization efforts, impacts have been reduced from 20,861 SF of wetland impacts and 168 LF of stream impacts estimated during preliminary design. Impacted wetlands include three forested wetlands, an emergent ditch wetland, and a large emergent cattail marsh.

There are three stream crossings located within the project area: Patten Brook, a Tier 3 perennial stream that is carried under the Turnpike via a 72" RCP culvert, and two unnamed Tier 1 intermittent streams located within the interchange area. The proposed project will not replace or extend any of the crossing structures associated with these streams. Therefore, there will not be any stream impacts associated with the proposed project.

Mitigation for the 9,651 SF of permanent impacts will be provided even though the impacts are below the 10,000 SF threshold required for mitigation. It is assumed mitigation will be required since the cumulative impacts from the entire 13761 project, including the southern and middle segments, will exceed the threshold. Based on the most recent available impacts, the in-lieu fee payment would be $54,633.11. Coordination with the Town of Bedford and the Piscataquog Land Conservancy is ongoing to try to identify potential projects that may be suitable for mitigation.

Patten Brook is included on the 2018 303(d) List as impaired for aluminum and the Merrimack River located to the east of the project area is impaired for aluminum and pH. Stormwater treatment will be provided to treat the additional impervious areas associated with the highway widening.

There is a 100-year floodplain and a regulatory floodway associated with Patten Brook, south of the interchange. Impacts to the stream and the associated floodplain/floodway have been avoided by incorporating a retaining wall into the design.

Rare species identified as possibly occurring in the project area include the federally threatened northern long-eared bat. Impacts associated with tree clearing will be determined soon. The project is anticipated to be in compliance with the 4(d) Rule and the need for additional acoustic surveys will be determined as the project progresses.

State listed species identified by NHB include river birch, sessile-fruited arrowhead and Wright's spikesedge as well as brook floater, American eel, bald eagle, peregrine falcon, eastern hognose snake, and spotted turtle. A rare plant survey was conducted in July 2019 and no rare plant species were identified in the project area during the survey. However, river birch was observed during the July 2020 delineation growing along the Merrimack River, outside the proposed project area.

Jon Evans provided clarification on the proposed mitigation approach. Mr. Evans noted that each contract would include separate mitigation for the associated impacts and NHDOT would work through this process with the different towns. The total mitigation for the cumulative impacts associated with the entire project would be reconciled at the end of the entire 13761 project.

Lori Sommer mentioned that she thought the impacts and mitigation sounded reasonable and she would confirm that the mitigation cost was calculated correctly using the latest calculator. Ms. Sommer indicated that she was pleased to see that stream impacts have been avoided.

Karl Benedict said that he was also pleased with the avoidance and minimization efforts and the reduction of impacts. Mr. Benedict asked if any wetland impacts are associated with the stormwater BMP areas. Mr. Hoffmann indicated that the BMP area located at southern end of the project was located adjacent to Wetland #33 and would result in minor impacts along the edge of the forested wetland totaling approximately 346 SF. Mr. Benedict also asked about the overlap between the MS4 and Alteration of Terrain Rules. Mark Hemmerlein confirmed this overlap and indicated that meeting the MS4 regulations would also meet the AOT requirements. Mr. Hemmerlein also confirmed that the project did not require coordination with the NHDES Watershed Management Bureau.

Carol Henderson mentioned that there are nesting peregrine falcons located beneath the NH Route 101 / 1-293 bridge over the Merrimack River. She noted that this is located outside the project area but to contact Chris Martin during construction to avoid any potential impacts. Ms. Henderson also noted that there is a documented bald eagle nest in the vicinity of the project and that the Bald Eagle Management Plan should be referenced during construction to avoid impacting this species. She would provide this information via email to the project team.

Amy Lamb asked for clarification on the study area that was sent to her for the NHB review that included an area to the north of the interchange. Mr. Hoffmann indicated that the study area that was sent to NHB included an area approximately 1.25 miles north of the limits of the proposed project. This area was included since potential stormwater treatment locations might be needed, however it has since been determined that no impacts are necessary north of the interchange. Ms. Lamb also requested additional

information on the river birch that was documented along the Merrimack River during the wetland delineation. Mr. Hoffmann also confirmed that additional rare plant surveys would not be required for the two species identified on the most recent NHB report including sessile-fruited arrowhead and Wright's spikesedge. Ms. Lamb confirmed that these species are associated with the Merrimack River, and since no impacts are proposed in the vicinity of the river further survey efforts for these species would not be required.

The US Army Corps of Engineers did not have any additional comments.

The EPA did not have any additional comments but indicated that they would follow up with Lori Sommer on the final mitigation approach.

Pete Steckler had a question about the location of a mapped stream. Mr. Hoffmann referenced a map of the wetland delineation and pointed out the location of Patten Brook, the unnamed intermittent streams, and Bowman Brook located at the northern limits of the project. Mr. Hoffmann also noted that there was an NHD mapped stream near the southern limits of the project. However, no stream was identified in this location during the wetland delineation. Mr. Hoffmann also noted that Bowman Brook is located near the northern limits of the project where it ties in and that there is only pavement work at this location.

Christine Perron noted that the project would be discussed at the November resource agency meeting if the Town of Bedford or Piscataquog Land Conservancy provided viable mitigation options to consider. If no viable options are provided, mitigation will be provided via in-lieu fee and there will be no need to return to the November meeting. The application will be provided to NHDOT in November for submittal to NHDES in December.

This project has been previously discussed at the 10/19/2016, 11/16/2016, 2/15/2017, 5/15/2017, 12/20/2017, and 1/17/2018 Monthly Natural Resource Agency Coordination Meetings.

Keene-Swanzey, #40100 (X-A004(345))

Pete Walker (VHB) reminded participants that this project had been presented at the Natural Resource Agency Meeting held on December 18, 2019, at which time, VHB and NHDOT outlined the purpose and general plan for the study, including the initial site screening methods and data sources. Substantial progress has been made since then, and the purpose of this meeting was to review the work completed and introduce the preferred site alternative, known as "Site 9."

P. Walker reviewed the project purpose and need, explaining that it seeks to identify an appropriate site to offset 19.9 acre-feet of floodplain impacts associated with the four NHDOT highway construction projects within Keene over the last decade:

- Contract 10309A: Base Hill Road Intersections with NH 9 and NH 10 (Completed 2007)
- Contract 10309H: NH 10/Winchester Street Roundabout (Completed 2008)
- Contract 10309O: West Street Improvements (Completed 2008)
- Contract 10309P: Multi-use trail over NH 12/101 (Completed 2017)

Wetland mitigation was completed for these projects, but NHDOT has been unable to find an acceptable floodplain mitigation site. The project is included in the approved NH Transportation Ten Year Plan. Site screening started at a landscape level using GIS data and other desktop resources to identify high priority floodplain mitigation sites in the City of Keene. To identify priority sites, VHB developed an analysis of "Floodplain Mitigation Focus Areas," which:

- Prioritized undeveloped lands, using City of Keene and NLCD data,
- Avoided wetland impacts, using NWI wetlands, hydric soils, and FB Environmental delineations (NHDOT sites), and
- Determined appropriate geomorphic position relative to the impacted floodplain, within or directly adjacent to the FEMA mapped floodplains, elev. 466 ft and 478 ft.

Using city tax parcel data, VHB identified a total of 19 parcels that contained at least 5 acres of Floodplain Mitigation Focus Area. This list was further narrowed to 10 priority sites by selecting sites that were determined compatible with adjacent land uses, were close to the impact location, and limited environmental impact such as tree clearing. Once the initial screening was completed, VHB used CAD and LiDAR topographic data to estimate the maximum potential compensation flood storage volume for potential mitigation sites. Each of the 10 sites were ranked according to compensatory storage available (refer to the accompanying presentation, slide 6):

- High Priority Sites (green, greater than 120% of target flood storage)
- Medium Priority Sites (yellow, between 80%-120% of target flood storage)
- Low Priority Sites (red, less than 80% of target flood storage)

Three of the 10 sites were ranked as low priority sites and were therefore eliminated from further study. On May 5, 2020, members of the Technical Advisory Group (TAG), VHB and NHDOT visited the set of seven remaining parcels in the field. As a result of this site visit, two parcels (Parcels 114-021 and 114-025, or the "Joslin Parcels") were eliminated from further consideration due to their location within an active low floodplain with a mature floodplain forest community.

A total of five sites remained and were selected for field studies, which included development of an existing conditions survey (property boundaries and topography), wetland delineations, preliminary cultural resource reviews, rare species coordination, updated compensatory storage volumes, and development of 30% design plans.

The wetland delineation revealed that Site 8 is primarily wet meadow, resulting in its elimination. Site 9 is dominated by open field, with an inclusion of primary succession forest in the southwest portion of the site, populated by young gray birch, poplar, and other small tree, saplings and shrubs. The Legere (111-007) and Krif (115-010 and 115-013) sites are similar locations - both are currently farmed, and have an unnamed perennial tributary running through the parcels and wetlands present along their margins.

VHB completed conceptual designs for the remaining four alternatives (i.e., 30% design - preliminary grading plan). The surface elevation data for each of the four sites was mapped, along with proposed excavation depth. The Legere (111-007) and Krif (115-010 and 115-013) sites were determined to be less practicable than Site 9 due to private ownership, the presence of an unnamed tributary and wetlands, and the results of the preliminary compensatory storage assessment. For these reasons, Site 9 was determined to be the preferred alternative.
Site 9 was presented as the preferred alternative at the TAG meeting held on September 24, 2020. Comments received included concerns about aesthetics and habitat value. In response, VHB developed a revised conceptual plan to test the idea of how to create a site with more heterogeneity, this preliminary concept could provide up to 22.8 acre feet of storage capacity, exceeding the target of 19.9 acre-feet of storage capacity. P. Walker explained that the revised conceptual plan for Site 9 will include plantings as the design is refined.

Next steps for the project include receiving a response from NHDHR on the RPR; submitting an engineering report to NHDOT; developing a NEPA Categorical Exclusion document; holding a public

informational meeting; and (if required) conducting a Public Hearing. Final design and construction are anticipated to begin next year.

The meeting then transitioned to open discussion and questions on the project from meeting attendees: Rhett Lamb (City of Keene) thanked NHDOT for following up on this project and addressing Keene's ongoing flood storage issues. R. Lamb expressed appreciation for VHB's work and agrees this project is an opportunity to add habitat value and create a space with a variety of ecological features.

Donald Lussier (City of Keene) agreed with R. Lamb.

Barbara Skuly (ARLAC) was pleased with the efforts undertaken for the project.

Marc Laurin (NHDOT) agrees with the selection of Site 9 as the preferred alternative.

Mark Hemmerlein (NHDOT) asked if the water table height at Site 9 has been identified. P. Walker responded that based on geotechnical data, groundwater should be at around elev. 465 feet. The low elevation at Site 9 would be 465-466 feet in elevation. P. Walker informed that old groundwater monitoring wells (previously installed by NHDOT on the site when it was evaluated for a potential wetland mitigation site) have been located and monitoring of groundwater has been reinitiated. M. Hemmerlein voiced concern about muddy conditions during construction and stated that a Construction General Permit would be needed.

Karl Benedict (NHDES) asked for clarification as to whether all wetlands were field delineated. P. Walker confirmed that all wetlands were field delineated this past summer. Karl additionally stated that the proposed tie-in to the tax ditch may require a wetlands permit. Pete stated that any permanent impacts to the ditch would be minor.

Lori Sommer (NHDES) commented on the thorough review of sites and the clarity of describing the work proposed. L. Sommer asked about construction access points, to which P. Walker responded that access has not yet been determined but will be as the design is refined. NHDOT-owned property will be considered as the most likely access points. P. Walker stated that access may entail temporary impacts to the tax ditch along NH 101. Lori requested review of the draft planting plan, when available, and noted that the project should carefully consider the potential for invasive species, recommending that the planting plan account for this issue.

Lori also asked that NHDOT execute a deed restriction on Site 9, to provide long term protection and recognition of the site's purpose. R. Lamb concurred with Lori's suggestion and noted that City ordinances would require permanent protection of Site 9.

Finally, Lori suggested NHDOT plan and budget for a monitoring and maintenance plan for Site 9 (3 years) to ensure the project goal is achieved.

Carol Henderson (NHF&G) did not have any comments.

Amy Lamb (NHB) offered to help with a planting plan. NHB had initially identified that rare plants may be present in the area. P. Walker stated that VHB conducted a survey of the area for the rare plants, but did not find any. NHB does not have any concerns. P. Walker to send A. Lamb a letter confirming no rare plants were found.

Richard Kristoff (USACE) will connect with Michael Hicks (USACE) for discussion regarding the floodplain and will follow-up with the project team.

Jean Brochi (USEPA) had no comments.

Jamie Sikora (FHWA) restated that the presentation provided a good overview of the project and that he is glad to see this project coming to fruition.

Peter Steckler (TNC) asked if realigning the stream in Site 9 was considered. This could slow the water flowing along the road, reconnecting the floodplain through the site. P. Walker responded that the project team had not considered realigning the flows from the tax ditch (which is not a stream) due to the focus on avoidance and minimization. Incorporating the channelized tax ditch may provide additional opportunities, but also might raise additional issues. R. Lamb informed attendees that the City of Keene actively maintains the "tax ditches" in the City and would prefer to have easy access to the channelized tax ditches once the project is complete. Don Lussier reiterated that City maintenance access should be considered, in addition to consideration of keeping low flow areas close to the road and keeping high flow routed toward the center of Site 9.

P. Steckler agreed with the holistic ecological approach to improve the habitat of the site, noting that important habitats exist in this area of Keene.

P. Steckler asked about consideration of the removal of the West Street Dam for the project. P. Walker responded that the project team is aware of the West Street Dam, but that project was not included in the list of alternatives. VHB had studies the potential removal of this dam on behalf of the City. R. Lamb added that finding a solution for the dam could take years; the City would prefer to pursue the compensatory storage project on its current schedule.

Karl Benedict (NHDES) supports the idea of connecting the channelized tax ditch through the floodplain site. Karl agreed that the tax dich could be retained as-is, and the proposed connection could run through the site as an overflow, which would maintain the proposed wetlands. This could be another consideration as the design progresses. NHDES would support this effort and would support VHB as needed through development of the design. and work through any wetland impacts. P. Walker stated that VHB could also evaluate reconnecting this flow to another tax dich.

L. Sommers stated that the use of rip rap to stabilize any created channel should be avoided.

This project has been previously discussed at the 12/18/2019 Monthly Natural Resource Agency Coordination Meeting.