

**BUREAU OF ENVIRONMENT
CONFERENCE REPORT**

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: February 21, 2024

LOCATION OF CONFERENCE: Virtual meeting held via Zoom

ATTENDED BY:

NHDOT

Andrew O’Sullivan
Joshua Brown
Jon Evans
Mark Hemmerlein
Rebecca Martin
Sam Fifield
Arin Mills
Christopher Turgeon
Kerry Ryan
Dana Lacasse
Desislava Pomeroy
Ross Wood
Kirk Stenersen
Frank Linnenbringer

ACOE

Absent

USCG

Gary Croot

EPA

Absent

NHDES

Karl Benedict
Seta Detzel
Emily Nichols
Mary Ann Tilton
Amanda Barker-Jobin

NHB

Absent

NH Fish & Game

Mike Dionne
Kevin Newton
Kevin Sullivan

Federal Highway

Jamie Sikora

US Fish & Wildlife

Absent

The Nature Conservancy

Absent

**NH Transportation &
Wildlife Workgroup**

Absent

**Consultants/ Public
Participants**

Christine Perron
Cory Helmick
Tucker Gordon
Katy Lewis

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

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Finalize Meeting Minutes

Finalized and approved the January 17, 2024 meeting minutes.

Bedford-Merrimack, 16100 (Non-Fed):

Christine Perron provided an overview of the project, which involves the construction of a new All Electronic Tolling (AET) facility to replace the existing conventional cash and E-Z Pass toll plaza along the F.E. Everett Turnpike in Bedford. The new facility will accommodate highway speed tolling with no cash option. AET is a booth-less, cashless tolling system that allows vehicles to travel through a tolling area at the full speed limit. There are no toll attendants and vehicle information is captured electronically via an E-Z Pass transponder or a license plate photograph with equipment located on an overhead gantry.

The Bedford Toll Plaza on the FE Everett Turnpike is located near the interchange with Ray Wieczorek Drive, just west of the Merrimack River and Manchester Airport. The Bedford 16100 project was originally reviewed at this meeting in 2016, but at that time conversion of the toll plaza to Open Road Tolling was proposed. The 2016 project was never constructed and All Electronic Tolling is now proposed.

Cory Helmick provided an overview of proposed work. The Open Road Tolling project that was originally proposed was a hybrid between traditional tolling and electronic tolling, with some lanes providing a toll booth for vehicles paying cash. The conversion to All Electronic Tolling eliminates the need for toll booths, allowing for a reduction in lanes from 6 lanes in each direction to just 3 lanes in each direction. This will result in a substantial reduction of roadway width. The full span toll gantry will be constructed 1500' to the north of the existing toll plaza. The project will also require the installation of full span or cantilever overhead signs and ground mounted signs. Additional work will include removal of the existing toll plaza and buildings, installation of concrete median barrier, and associated drainage work. New maintenance ramps will be constructed at Exit 12 to provide access to authorized winter maintenance and emergency vehicles.

The project is currently scheduled to advertise in July 2024, with the NHDES Standard Dredge & Fill permit application to be submitted in March 2024.

C. Perron reviewed anticipated wetland impacts and other resources in the project area. A wetland delineation was completed in 2023. There are only two areas where the project will result in wetland impacts, shown here in red at the north end of the project. Both impact areas are the result of proposed grading and guardrail associated with the installation of overhead sign structures. Impact area A is located at the edge of a forested wetland, totaling 184 SF of permanent impact and 235 SF of temporary impact. Impact area B is also along the edge of a forested wetland, totaling 1409 SF of permanent impact and 1711 SF of temporary impact. Impacts from the project will total 1593 SF permanent and 1946 temporary. There will be no work on stream crossings and no impacts to priority resource areas. Based on the proposed impacts, the project will require a NHDES Standard Dredge & Fill Permit and will be classified as a minor impact due to total impacts exceeding 3,000 SF.

Other resources in the project area include suitable roosting habitat for northern long-eared bat. The project will require about 0.3 acres of tree clearing, which will take place during the inactive season for bats. Consultation with USFWS has been completed with the Army Corps as the lead federal agency, with concurrence that the project is not likely to adversely affect the northern long-eared bat.

The Natural Heritage Bureau review included plant and wildlife records in the vicinity of the project. A plant survey was completed in the project area in August 2023 for bird-foot violet and wild lupine and neither species was found. Consultation with NH Fish & Game regarding wildlife species has been initiated and appropriate avoidance and minimization measures will be implemented during construction

The conversion to All Electronic Tolling will result in a smaller overall roadway footprint. Existing paved areas in the project total 26.1 acres. After construction, total impervious will be 19.9, resulting in a decrease in paved area of 6.2 acres.

The following is a summary of questions and comments from attendees:

Karl Benedict confirmed that the project would be classified as minor impact due to the combined temporary and permanent impacts exceeding 3,000 SF. He asked that the permit application include a description of how impacts are limited to the edge of wetlands and impacts were minimized.

Mary Ann Tilton had no comments.

Seta Detzel noted that the proposed impacts are well below mitigation thresholds.

Mike Dionne had no comments.

Kevin Newton noted that winter tree clearing would also benefit the turtle species in the area of the project. He would review the consultation materials that were submitted and respond with comments.

Gary Croot stated that he had no comments since there is no Coast Guard jurisdiction in the project area.

Bridgewater, 2020-M324-2 (Non-Fed):

Arin described this project was previously presented at the September 20, 2023 Natural Resource meeting and is being presented again based on some design changes as a result of geotechnical borings received after the 2023 meeting. The project will replace a culvert that conveys Great Brook under River Road (state road) in Bridgewater. Great Brook flows approximately 3 miles from its headwaters to the crossing, and further flows approximately 0.2 miles downstream to convergence with Pemigewasset River (Pemi). The project area, and the area surrounding Great Brook, is rural and primarily undeveloped. River Road is a Tier 4 (Local Connector state road) with average daily traffic of 90 vehicles per day. Photos were shown of the project area, both upstream and downstream of the crossing.

Sam described that in December 2023 one of the two existing 48" pipes (the CMP) suffered catastrophic failure that required the full closure of River Rd. (Note- Sam noted a change in slides, the existing pipe is 48" and not 36" as previously presented) At that time the CMP was replaced in-kind and the road was re-opened to traffic. Sam further described the results of the geotechnical investigations determined the subgrade of the site is composed of hard rock and consequently a design change was warranted due to constructability issues and cost. Sam described the updated scope of work includes replacement of the existing 48" CMP and 48" overflow RCP with a 65' long, 15' wide 3-sided structure with varied height (5.5' at inlet to 8.5' at outlet). The design also proposed to remove rock along the stream channel to allow for a simulated stream channel bed along the invert of the crossing. The proposed design also still improves stream alignment at inlet from existing conditions.

Sam reviewed previously considered alternatives to include slip lining of the original 48" CMP, which was ruled out due to the large size of the catchment area (2.94 Sq Mi). A 42' span (52' along roadway centerline), a 20' span 3-sided structure on abutments and 14' wide x 6.5' tall (sunk 2.5') box culvert all were considered not cost effective and would also result in increased impact to wetland resources. The 10' wide x 8.5' tall (sunk 2.5') was presented at the September 2023 meeting. Sam further showed the hydraulic analysis using HydroCAD for both the existing and proposed pipes. The proposed structure will allow the stream to pass flows (with freeboard) to the 100-year storm event, with a decrease in velocities.

Sam showed preliminary impacts plans to wetland resources, along with profile and cross section views of the crossing. A table showed all anticipated wetland impacts and compared with what was presented at the September meeting. Total bank impacts 937 SF (69 LF) and 1855 SF (109 LF) riverine impacts for a total of 2,792 SF. All impacts proposed are permanent for stream re-alignment to the new crossing. Total impacts from previous design presented in September were estimated 5,418 SF.

Sam described an overview of the anticipated construction sequence to include closing the road down and using the existing 48" cmp as an initial stream diversion while half of the required rock excavation is completed and the southern short abutment and wingwalls are built. Then using part of the area adjacent to the newly built short abutment for the stream diversion, rock removal will be completed, the northern short abutment and wingwalls will be constructed, and the ground at the inlet will be graded. Streambed material will then be placed within the footprint of the structure and the precast top arch will be installed. Next, the structure will be filled over, and the roadway structural materials may be built. The roadway will then be opened to single lane alternating 2-way traffic. At that time final pavement, guardrail, landscaping, and permanent erosion controls will be installed. Temporary erosion controls will remain until vegetation is established.

Arin described the results of the Env review for the project: Great Brook is a 2nd order stream to convergence to Pemi with no SWQPA; per StreamStats, it is a Tier 3 crossing with watershed of 1,883 acres (2.94 sq mi); the project is located within Pemi River Designated River buffer, and PRLAC has been notified of project and sent plans with no comment; there have been no previous permits identified outside of the Spring 2023 EAV for emergency repair and in-kind replacement of one pipe in December 2023 due to roadway failure during storm events; NWI data

shows, and field surveys confirm, a riverine system upstream with a Palustrine scrub-shrub (PSS) further downstream; primary impacts from the project are to riverine system; the project lies within 100-year FEMA flood zone and no impacts to PRA (previously ~ 36 SF); NHB23-1879 had no recorded occurrence of rare species; NOAA coordination for Essential Fish Habitat determined that there are no concerns due to numerous downstream passage restrictions for diadromous fish; both wildlife corridor and habitat ranking maps were shown, with the proposed project to improve both; the stream has documented Eastern Brook trout and NHF&G fisheries biologist J.Magee was consulted via a site visit and determined that the proposed design is an improvement to fish passage; a Time of Year (TOY) restriction for in-water work after October 1st for wild trout; Aquatic Restoration Mapper (ARM) data was shown where the existing crossing is listed as geomorphically mostly incompatible and reduced passage for aquatic organisms.

The project is located adjacent to the Martin Conservation Easement held by SPNHF, and they have been contacted with the proposed design. Impacts will extend outside the States 66' right-of-way and District 3 and the Bureau of ROW will work with the landowners and easement holders for required documentation prior to construction. It is anticipated a hearing with SPNHF for changes to this easement will take place in 2024. Stream crossing data was shown and determined a compliant size structure is 42' span. Reference reach substrate is 60% gravel and 40% sand with a bankfull width of 19' with a meandering and mobile natural substrate. Downstream of impact area is a PSS wetland. A US Fish & Wildlife IPaC resulted in possible Northern Long-Eared bat, and determined the project to be no effect. Section 106 for cultural resources resulted in and determination of 'Minimal Potential to Cause Effect' under an Appendix B.

A wetlands permitting summary was provided; the crossing is Tier 3 (904.05) and the proposed design mostly meets the design criteria noted in 904.07; it accommodates the 100-year storm, will provide stream simulation and a wildlife shelf, and improvements to sediment transport. The project will be an Alternative design under 904.10 as it does not meet the design criteria under stream crossing guidelines for a 3-sided structure with a 42' span (>52' span from skew of stream to the road) as it is cost prohibitive. A PE certification will be provided with the application. Mitigation is not required under 904.05(f) as the project is self-mitigating by eliminating the perch, restoring the natural stream alignment, providing stream simulation and a wildlife shelf, improve hydraulic capacity, passes the 100-year storm, and vegetated streambanks (see table in slides). The stream classification is Type 'C' with a bankfull width of 19' in reach. A compliant 42' span (52' along roadway centerline) is cost prohibitive, a 15'W x 5.5'H with stream simulation and wildlife shelf within is proposed. The project meets design requirements of 904.01.

Karl B agreed the size and configuration look good and agrees with the permitting summary presented, to include self-mitigating. Karl asked the application include a planting plan with vegetation proposed. Karl asked to confirm no perch at outlet and Sam confirmed no perch once project is complete. Karl further asked a monitoring plan for streambed simulation be provided with the application to ensure streambed material stays within the structure.

Mary Ann Tilton from NHDES said he has no concerns for fish passage and agrees with the comments for monitoring of streambed material. Mike D from NHFG also said fish passage

looks good and the TOY restriction is appropriate. Mike D also asked if existing streambed material could be stockpiled and reused, and Sam confirmed it would be.

Seta D agrees with the self mitigation justification provided and monitoring will ensure stability of the material over time. Andy O confirmed DOT can provide a monitoring plan with the application.

Kevin N and Gary C had no comment.

Hancock, 2023-M408-1 (Non-Fed):

Arin provided maps depicting the location of the existing 72" CMP which carries NH-137 over Hosley Brook near Hancock Center. She described Hosley Brook flows about 3.8 miles from its headwaters in Hunts Pond to the crossing. From the crossing Hosley Brook flows approx. 0.75 miles to convergence with Furguson Brook where it eventually enters the Contoocook River. Much of the brook is surrounded by conservation land by the Harris Center, although no conservation land is immediately adjacent or within the project. The land surrounding the crossing is mainly undeveloped and rural/residential. Photos were shown of the crossing and surrounding landscape upstream and downstream of the crossing.

Kirk described the design alternatives considered to include slipline/concrete invert lining, and a 24'1 x 28'w bridge. The slipline/invert lining would reduce the capacity and not improve the hydraulics of the crossing. The bridge is both cost prohibitive and would require significantly more impacts to the surrounding wetlands. The preferred alternative is replacement of the existing 72" CMP with 72"h x 92"w x 60' long concrete box sunken to allow for 12" simulated streambed material within. The proposed design enhances hydraulics, improves aquatic organism passage and improves geomorphic compatibility from existing.

Preliminary impact plans show all impacts are temporary and the crossing is in the mostly in the same alignment as existing and with natural stream channel. Existing rip rap surrounding the inlet and outlet of the structure allow the increased crossing impacts to remain within the infrastructure existing footprint. A temporary bypass pipe will be installed to the south of the existing crossing, and cofferdams will divert stream flows during construction. Kirk summarized the temporary impacts with a total of 975 SF and a total of 114 LF of left bank/channel/right bank impacts.

Kirk reviewed the preliminary hydraulics analysis where the existing 72" CMP has an opening of 28 SF and the proposed 72"h x 96" concrete box increases the opening to ~ 40 SF, resulting in a 40% increase. There is no known history of the road overtopping and the hydraulics will show the crossing will accommodate the 100-year storm event.

An overview of the construction sequence will begin with installation of erosion control measures and road closure/traffic diversion. Existing pavement will be removed, and loam with vegetation will be removed and stockpiled. The temporary diversion culvert will be installed, and a temporary cofferdam will be installed. The existing 72" CMP will be removed, excavation for the proposed concrete box and new box will be installed and backfilled. Simulated stream material will be placed on the bottom of the new structure. Wingwalls at the inlet/outlet will be

installed. The temporary cofferdam and diversion pipe will be removed. Disturbed areas of temporary impact will be loamed and seeded. The roadway will then be paved and reopened to traffic. Erosion control measures removed once site vegetation is established.

Arin described the stream as a 2nd order stream with no SWQPA jurisdiction. A Tier 3 stream with a 2,100 acre watershed per StreamStats. The area is not within a Designated River Corridor and no previous permits were identified. Maps and the delineation show a large PSS wetland at both the inlet and outlet of the crossing. The predicted Priority Resource Areas (PRA) per GIS are floodplain wetland adjacent to a Tier 3 stream and marsh. The project is within a 100-year FEMA floodplain. The preliminary functions and values (F&V) of the wetland are Groundwater Recharge/Discharge, Flood flow alteration, Fish & Shellfish Habitat, Sediment/Toxicant Retention, Nutrient Removal, Sediment shoreline Stabilization and Wildlife Habitat. Impacts were avoided and minimized with the design and necessary for installation of erosion control measures. No net loss of F&V, and the proposed crossing improves the system. Arin notes all impacts anticipated to be temporary.

The Aquatic Restoration Mapper identified AOP passage for adult trout only and with partial geomorphic compatibility (GC). Arin noted the proposed design would improve both Aquatic Organism Passage and GC. F&G GIS data shows the project is in a predicted wildlife corridor and not within a highest ranked habitat area. The IPaC review determined 'No Effect' to Northern long-eared bat and complies with Appendix B for Section 106 with No potential to cause effects for historic resources.

Arin described there were no known records in the NHB23-2497 review. The stream is a documented stream with Eastern Brook trout, and coordination with John Magee and Jared Lamey of NHF&G requested construction ahead of October 1st is preferred for protection of spawning trout. If work needs to be conducted after October 1st installation of the cofferdam to restrict spawning in the project area will provide protection for the species. Highlights of the stream assessment were shown where the classification is R2UBH with a bankfull width of 10.3', reach slope of 1% and entrenchment ratio of 20.1 and classified as a Rosgen type E stream. The averaged reach substrate is 87% sand, 8% silt and 5% gravel. Mitigation is not required per Env-Wt 904.05(f)(2) as the project will meet Env-Wt 904.09. A table summarizing Env-904.09 shows the design will meet or enhance the crossing from the existing in all elements. The crossing does not have a history of flooding and the proposed design will improve hydraulic capacity of the crossing during storm events.

Karl B, NHDES agreed the design will be considered self-mitigating under Env-Wt904.09 and Env-Wt 904.05. Karl reviewed the Top of Bank (TOB) on the proposed plans and recommended revegetation above the headwall and along the slopes. He noted vegetation will restore impacts to the adjacent PRA and temporary impact areas.

Mary Ann T, NHDES liked the F&V summary and had no further comments.

Seta D, NHDES agreed the project is self-mitigating, as proposed.

Mike D, NHF&G had no comments.

Kevin N, NHF&G recommended although there were no NHB hits the turtle flyer be distributed as awareness to contractors and construction staff while onsite.

Gary C, USCG concurred there is no Coast Guard jurisdiction.

Groton, STM77214 (STM77215-FEMA):

Arin Mills, DOT Environmental Manager, noted the project has potential to receive FEMA funding from a 2019 storm event. The project is located on North Groton Rd over an un-named tributary to the Cockermouth River. The existing crossing are deteriorated twin 6'w x 3'h twin elliptical pipes. Stream flows from its headwaters to the crossing, then approx. 2.3 miles to the convergence with the Cockermouth River and ultimately inletting to north end of Newfound Lake. The crossing received an Emergency Authorization resulting from a large storm event in July 2019 where heavy rains fell in the area. Runoff from the roadway near the crossing led to drainage swale washout and storm debris clogging the pipes. The surrounding landscape is rural and residential with no conservation lands nearby. Photos were shown of the existing crossing and surrounding landscape.

A delineation was completed by DOT staff in fall 2023 where a R3RBH stream was delineated with a PFO along one bank near the inlet of the crossing. The stream is bound by an OHW/TOB with steep banks leading the stream channel. The stream is 1st order, no SWQPA, and a Tier 2 with a 570 ac watershed per StreamStats with no Designated River corridor. No predicted or identified Priority Resource Areas (PRA) and no FEMA floodplain. Wildlife Action Plan predicts supporting landscape and near a wildlife corridor. The IPaC determined potential Northern long-eared bat and a likely time of year (TOY) restriction may be warranted for tree clearing, although coordination is not complete at this time. Appendix B for Section 106 with No Potential to Cause Effects for cultural resources. Based on review of NHFG data the stream has documented Eastern Brook Trout and coordination with NHFG will be completed for potential TOY restrictions for in-water work. The Aquatic Restoration Mapper identified the crossing as Reduced AOP and mostly Incompatible for geomorphic due to the partial blockage of pipes.

A summary of the stream crossing assessment showed average substrate composition in the reach is 63% bedrock and 22% cobble. An average bankfull width of 21.3' and a Rosgen Type A stream. A compliant size based on the stream crossing data is 30', which is cost prohibitive and not advantageous for the project.

A summary of permitting requirements under Env-Wt 904.08 for replacement of a tier 2 crossing. Env-Wt 904.08(b)(1) and a PE will certify no history of flooding. The crossing does not have a flooding history and the 2019 event was due to various types of debris, not related to culvert capacity, which caused roadside washout from the major storm. No FEMA floodplain and no Flood History Reports per the ARM mapper or Groton Hazard Mitigation Plan. The design submitted with the wetland application will meet Env-Wt 904.08(b)(2) with maintain or enhance hydraulics, AOP, connectivity and not cause or contribute to flooding. The DOT request concurrence to proposed project will not require an Alternative design under Env-Wt 904.10 with a PE certification as mentioned earlier. Anticipated classification as minor under Env-Wt 903.01(f) as there is only one stream crossing included in the project, and that stream crossing is (e)- A replacement tier 2 stream crossing that meets the criteria of Env-Wt 904.08. Anticipate

Minor and maintain under thresholds <3,000 SF, <50 LF (Env-Wt 407.02) and DOT will continue DES coordination if thresholds are exceeded in proposed design.

Karl B., NHDES said the project is on track with the permitting process and no alternative design if PE certifies Env-Wt 904.08 and meet Env-Wt 904.01 and Env-Wt 904.07. Final design can be coordinated, once completed. He suggested working with agencies on the time of year (TOY) restrictions for wildlife.

Mary Ann T., NHDES had no comments.

Seta D., NHDES said the self-mitigation justification seemed on track.

Mike D., NHF&G noted the documented trout in the area and TOY restriction for spawning seemed justified.

Kevin N., NHF&G and Jamie S., FHA had no comments.

Gary C. said no Coast Guard concerns.

Berlin, 44142 (X-A005-(326)):

Tucker Gordon (HEB Engineers, Inc.) presented the Mason Street Bridge #238/055 over the Smith Canal project in Berlin, NH. The Mason Street Bridge was built in 1967, and rehabilitated in 1977. The Mason Street Bridge is a 2-span bridge with a central pier, and consists of a cast in place concrete deck. There is a 6-foot-wide sidewalk on the western side of the bridge. The bridge underwent repairs in 2021. The New Hampshire Department of Transportation (NHDOT) inspection report gave the bridge deck a rating of 6 – Satisfactory, the superstructure a rating of 7 – Good, and the substructure a rating of 7 – Good. The Smith Canal is blocked off and dry once per year by Patriot Hydro, for them to perform repairs on the hydropower facility. Mason Street is a 2-lane, 28-foot-wide paved road that is densely developed and connects downtown Berlin over the Androscoggin River and Smith Canal.

The Androscoggin River and associated Smith Canal are Tier 3 streams. There are no Priority Resource Impacts anticipated as the canal is contained entirely within concrete retaining walls and does not have any banks or associated floodplains. In 2021, a New Hampshire Department of Environmental Services (NHDES) Wetlands Permit by Notification (PBN) and NHDES Shoreland PBN were approved and includes the scope of the current proposed project. In addition, a wetland delineation waiver was previously granted by NHDES for the repair work conducted in 2021. An NHB DataCheck (NHB24-0121) returned a record of a threatened or endangered species and/or a natural community, however the NH Natural Heritage Bureau determined that the proposed project is not likely to impact the record. The USFWS IPaC Datacheck determined that the project area is within the range of the northern long-eared bat, Canada lynx, and monarch butterfly. Further consultation is required to reach a determination for the northern long-eared bat and Canada lynx. The Preservation Company has been contracted with and will be submitting the RPR for Section 106 coordination. Due to the federal funding of the project, a Categorical Exclusion will be required. The waterways associated with the project area are designated as Supporting Landscape in the NH 2020 Wildlife Action Plan and is a High

Priority Area for invasive plant management. A site visit determined that there was no significant occurrence of Type I invasive plants or Type II Priority Invasive Plants.

T. Gordon presented four (4) proposed alternatives: (A): No-build, (B): Preservation, (C): Rehabilitation, and (D): Replacement. A preferred alternative has not yet been selected. The No-build alternative has been evaluated and would not accomplish the structural improvement needs of the project. Alternative B: Preservation would consist of partial and full-depth deck repairs, removal of the midspan expansion joint, construction of a continuous deck over the pier, rehabilitation or replacement of the fixed bearings on the pier, and full and partial depth repairs of the pier concrete. Alternative C: Rehabilitation would consist of a deck replacement, construction of a continuous deck over the pier, rehabilitation or replacement of the fixed bearings on the pier, and full and partial depth repairs of the pier concrete. Alternative D: Replacement would consist of replacement of the existing superstructure and possibly substructure, however this alternative is prohibitively expensive, would have increased environmental impacts, and is not necessary at this time as the existing bridge has not reached its end of lifecycle. T. Gordon noted that the project is proposed to be conducted during the time of year when the canal is blocked off and dry.

The Engineering Study is anticipated to be completed in May 2024. The remaining future phases of the project are to be determined.

Karl Benedict (NHDES) asked whether HEB would be applying for another wetland delineation waiver. T. Gordon replied that assuming the preferred alternative is rehabilitation or preservation, HEB would look to pursue similar PBNs and the same waiver for wetland delineation. He also noted that with the longer schedule for this project, a wetland delineation could be accommodated. K. Benedict said that as long as the PBN requirements are met, he'll defer to Mary Ann Tilton (NHDES) for the question about a wetland delineation waiver.

M.A. Tilton agreed that this project would qualify for a wetland delineation waiver.

Seta Detzel (NHDES) had no comments about mitigation at this point in the design stage.

Mike Dionne-New Hampshire Fish & Game (NHF&G) had no comments.

Kevin Newton (NHF&G) had no comments.

Gary Croot-US Coast Guard (USCG) said that the USCG has determined that the Androscoggin is navigable in the project area. If the selected alternative for the proposed project consists of a repair, it will be a simple permitting process. If the selected alternative is a full bridge replacement or the bridge dimensions are altered the project could be subject to USCG permitting and would require an alternate advanced approval to exempt the bridge from permitting, however it depends on the alternative.

Jamie Sikora-Federal Highway Administration (FHWA) said that the City of Berlin received a RAISE grant, and suggested HEB check to see when the proposed project would occur in relation to activities associated with the grant.

Wilton, 15767 (Non-Fed):

Tucker Gordon (HEB Engineers, Inc.) presented for the King Brook Road Bridge #074/060 over King Brook project in Wilton, NH. The project is funded through State Aid Bridge and is not federally funded. The King Brook Road Bridge was built ca. 1850, and is a historic dry-laid stone arch. It is a 10-foot, single span bridge that was extended in 1901 and 1975, and reconstructed in 2014 after a partial collapse. In 2014, a headwall and northeast wingwall were added. The bridge is currently on the Municipal Red List. The New Hampshire Department of Transportation (NHDOT) inspection report gave the culvert a rating of 3 – Serious. There are several voids throughout the bridge, and numerous loose, cracked stones along with substandard guardrails. King Brook Road is a 20-foot paved roadway that is primarily residential. King Brook Road provides important access to Kimball Physics—the largest business and employer in Wilton.

King Brook is a Tier 3 stream. There are no floodplain Priority Resource Area (PRA) impacts anticipated, and impacted wetlands are expected to be entirely within the streambanks. An NHB DataCheck (NHB24-0195) returned no records of threatened or endangered species and/or any natural communities. The US Fish and Wildlife Service (USFWS) IPaC Datacheck Tool determined that the ranges of the northern long-eared bat and monarch butterfly potentially overlap with the project area. Further consultation is required and is ongoing. The Section 106 coordination for this project was partially completed in previous years. The King Brook Road Bridge is on the Historic Bridge Inventory, and it has previously been determined that the proposed project will have an Adverse Effect. A mitigation strategy has been preliminarily agreed to by the NH Division of Historical Resources (NHDHR), the Town of Wilton, and various other stakeholders. Mitigation coordination and documentation efforts are on-going through the Preservation Company. The project area is designated as Supporting Landscape in the NH 2020 Wildlife Action Plan, and is a High Priority Area for Invasive Plant Management. A site visit determined there was no significant occurrence of Type I Invasive Plants or Type II Priority Invasive Plants.

T. Gordon presented three (3) proposed alternatives: No-build, and two variations on bridge replacement alternatives: Alternative A: In Kind Replacement, and Alternative B: Stream Crossing Compliant Crossing. The No-build alternative has been evaluated and does not meet the structural needs of the project. The material needs of a preservation or rehabilitation alternative are not feasible. Alternative A: In Kind Replacement consists of establishing a 12-foot clear span crossing with a dry laid stone arch superstructure and concrete spread footings substructure. This alternative meets NHDOT and NHDES hydraulic requirements and does not meet NH stream crossing guidelines. This alternative has not been selected as the preferred alternative due to prohibitive costs. Alternative B: Stream Crossing Compliant Crossing consists of building a 16-foot clear span with a precast concrete arch superstructure and concrete spread footings substructure. This alternative meets NHDOT and NHDES hydraulic requirements as well as NH stream crossing guidelines. Alternative B is the preferred alternative as it involves a decreased cost, an increased lifespan of the crossing, and meets environmental considerations.

The Engineering Study has been completed. The preliminary design is scheduled for March 2024, the permit application is anticipated to be submitted in August 2024, the final design is

scheduled for March 2025, bidding will occur in August 2025, and construction will begin in summer 2026.

Karl Benedict (NHDES) said that the alternative analysis seems to make sense as far as sizing, and will need to be coordinated through the reference reach to obtain information for final confirmation on sizing.

T. Gordon replied that the H&H analysis has been completed and incorporated NH stream crossing guidelines, which was how the preferred alternative span was selected.

Mary Ann Tilton (NHDES) had no comment.

Seta Detzel (NHDES) had no comment.

Mike Dionne-NH Fish and Game (NHF&G) had no comment, and said that there were no cold water concerns.

Kevin Newton (NHF&G) had no comment.

Gary Croot-US Coast Guard (USCG) had no comments.

Jamie Sikora-Federal Highway Administration (FHWA) gave no response.

Colebrook, 40651 (Non-Fed):

Tucker Gordon (HEB Engineers, Inc.) presented for the Harvey Swell Road Bridge #190/109 over the East Branch of the Mohawk River in Colebrook, NH. The proposed project is not federally funded and is funded through State Aid Bridge. The Harvey Swell Road Bridge was built in 1969. It consists of a 13-foot, 6-inch diameter corrugated metal pipe that is 76-feet long. The bridge is on the Municipal Red List, and the New Hampshire Department of Transportation (NHDOT) inspection report gave the culvert a rating of 4-Poor. The existing structure has missing bolts, cracked bolt holes, and the tail cutoff wall is spalled and cracked. The outlet of the culvert is perched with a significant scour pool, and there are eroded ditches along fill slopes. Harvey Swell Road is a 24-foot-wide gravel road that is residential and the primary means of access for residents. Harvey Swell Road also provides access to the R. Keith Haynes Memorial Snowmobile Trail, a popular path in the winter.

The East Branch of the Mohawk River is a Tier 3 stream. No floodplain Priority Resource Area (PRA) impacts are anticipated, and impacted wetlands are expected to be entirely within the riverbanks. An NHB DataCheck (NHB23-3120) had records for cliff swallow, northern harrier, and northern red-belly dace. Further consultation is required and ongoing, with a deadline at the end of March to provide the NH Fish and Game (NHF&G) with additional project information. The USFWS IPaC Datacheck determined that the general project area overlaps with the potential ranges of northern long-eared bat, Canada lynx, and monarch butterfly, however the project reached a Not Likely to Adversely Affect determination for the Canada lynx and reached a No Effect determination for the northern long-eared bat. The Section 106 NHDHR RPR was

submitted on 01/19/2024, and no hurdles are anticipated. The project area is the Highest Ranked Habitat in NH designation in the 2020 Wildlife Action Plan and is designated as a High Priority Area for invasive plant management. A site visit determined that there was no significant occurrence of Type I invasive plants and no occurrence of Type II Priority Invasive Plants.

T. Gordon presented four (4) proposed alternatives: Alternative A: No-build, Alternative B: Culvert Rehabilitation, Alternative C: 12-foot Span Replacement, and Alternative D: 50-foot Span Replacement. The Alternative A: No-build alternative was evaluated and does not address the structural needs of the project, and would result in the eventual closing of the crossing. Alternative B: Culvert Rehabilitation consists of sliplining the existing culvert, repairing the concrete head and tail walls, installing flow control and scour protection measures, and maintaining the existing roadway alignment and profile. The existing culvert meets the NHDOT and NHDES hydraulic requirements, as does this alternative. This alternative does not meet NH stream crossing guidelines. Alternative C consists of replacing the existing crossing with a 12-foot span crossing. This alternative provides a simulated natural stream bottom, but falls short of meeting NHDES stream crossing guidelines. This alternative has not been selected due to prohibitive costs. Alternative D consists of replacing the existing crossing with a 50-foot clear span bridge with precast prestressed concrete box beams superstructure, and concrete spread footings substructure. This alternative meets NHDOT and NHDES minimum hydraulic requirements and NH stream crossing guidelines. This alternative has not been selected as the preferred alternative due to prohibitive costs. The selected preferred alternative is Alternative B: Culvert Rehabilitation. The existing culvert has not been previously sliplined or rehabilitated, so this alternative follows the Env-Wt Chapter 900 rules.

The engineering study has been completed for this project. The preliminary design is scheduled to be finished in March 2024, the permit application is scheduled for June 2024, the final design is anticipated to be completed in September 2024, bidding will occur in February 2025, and construction is scheduled for the summer of 2025.

Karl Benedict (NHDES) asked if the culvert would still be hydraulically adequate after sliplining.

T. Gordon replied that yes, a hydraulic analysis has been done, and while HEB is still working on selecting a final method and diameter of slipline, all the alternatives meet both NHDOT and NHDES requirements.

K. Benedict noted the considerations for increased velocities at the culvert outlet, and asked if there is a plan to correct the perched condition of the culvert, and what the proposed flow control and scour protection plans are.

T. Gordon replied that HEB is looking to reduce the perched condition, but complete correction does not seem possible. A significant reduction in elevation and stabilization of the scour pool is proposed, and HEB is working with the slipline manufacturer for flow control and velocity reduction in the structure.

K. Benedict noted that in terms of approvability for sliplining the culvert, there may be some increased velocity and aquatic organism passage (AOP) may not be possible, and asked that HEB add those considerations for the final chosen alternative.

Mary Ann Tilton (NHDES) said that she had no additional comments and would defer to K. Benedict's comments.

Emily Nichols (NHDES) agreed with K. Benedict, and noted that mitigation and impacts to PRAs would be determined once the design is finalized.

Mike Dionne-NH Fish and Game (NHF&G) reiterated K. Benedict's concerns about AOP, and said that he would like to know what flow control methods will be used and how the scour pool will be dealt with. He noted that NHF&G would like to see the perched condition eliminated.

Kevin Newton (NHF&G) supported M. Dionne's comments. He noted that he saw HEB is working with Luke Douglas for the NHB coordination, and said that going forward he and M. Dionne should be included in the NHB consultation.