ENVIRONMENTAL REVIEW SHORT FORM
STATE FUNDED PROJECTS

Action/Project Name: Nottingham **State Project Number:** 40612

Description of Project:
The proposed project would involve the replacement of the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham (Exhibits A and B). The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span and is currently on the State's Red List. It would be replaced with a 30-foot span bridge. The project would also involve 200 feet of roadway widening on each end of the bridge to transition the additional three feet on each side of the roadway at each bridge approach back to the existing roadway. The bridge would be closed during construction and traffic would be detoured (Exhibit C). The purpose of the project is to improve safety by replacing a deteriorated bridge. Rehabilitation of the existing bridge is not feasible due to the poor condition of the existing substructure. In addition, the existing bridge is undersized and does not convey the 100-year storm. The proposed project would increase the hydraulic capacity of the crossing.

SECTION I: ENVIRONMENTAL REVIEW CHECKLIST

		NO	YES
1	*Right-of-Way* – Does the proposed action result in any residential or non-residential displacements, or acquisition of property rights to an extent that impairs the functions of the affected property?	☒	☐
2	*Cultural Resources* –Does the proposed action have an Adverse Effect on historic properties?	☒	☐
3	*Section 6(f)* – Does the proposed action require the acquisition or conversion of any land under the protection of Section 6(f) of the Land and Water Conservation Act of 1965?	☒	☐
4	*Wetlands/Surface Waters* – Does the proposed action require an Army Corps of Engineers Individual Permit pursuant to the Clean Water Act, and/or a Section 10 permit pursuant to the Rivers and Harbors Act of 1899?	☒	☐
5	*US Coast Guard* – Does the proposed action require a US Coast Guard bridge permit?	☒	☐
6	*Floodways/Floodplains* – Does the proposed action encroach on the regulatory floodway of water courses or water bodies, resulting in more than a nominal increase in base flood elevation? Does the proposed action have a significant or adverse impact on floodplain values, or create a significant risk to human life or property?	☒	☐
7	*Water Quality* – Does the proposed action have more than a negligible impact on water quality?	☒	☐
8	*Wild and Scenic Rivers* – Does the proposed action require any work below the ordinary high water mark of a river designated as a component of, or proposed for inclusion in, the National System of Wild and Scenic Rivers, or below the ordinary high water mark of a tributary to such river?	☒	☐
9	*Noise* – Is the proposed action a Type I highway project?	☒	☐
10	*Endangered Species* – Does the proposed action require an Endangered Species Act (ESA) Section 10 permit, or would the proposed action result in a finding of "*may affect, likely to adversely affect"* threatened or endangered species or critical habitat under the ESA, and require a project-specific Biological Opinion? Does the proposed action result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act?	☒	☐
11	*Air Quality* – Is the proposed action inconsistent with the State Implementation Plan in air quality non-attainment areas, or the Statewide Transportation Improvement Program, or in applicable urbanized areas the Transportation Improvement Program? Does the proposed action cause or contribute to violations of the National Ambient Air Quality Standards (NAAQS)?	☒	☐
12	*Contamination* – Does the proposed action involve known sources of contamination, which would result in significant adverse environmental impacts, or create a significant risk to human life or property?	☒	☐
13	*Other* – Are there any unusual circumstances that would require additional environmental studies (e.g. substantial environmental controversy, or inconsistency with other environmental requirements)	☒	☐

- If the answer to all questions above is **NO**, complete Sections II-VII with brief narrative responses.
- If the answer to one (1) question above is **YES**, complete Sections II-VII, including a detailed discussion in Section II of that YES response and why impacts cannot be avoided. Provide a brief discussion of all other items.
- If the answer to two (2) or more of the above questions is **YES**, complete Sections II-VII, including a detailed discussion in Section II of those YES responses and why impacts cannot be avoided. Provide a brief discussion of all other items. **In addition, you must complete Section VIII: Alternatives Analysis.**

SECTION II: DISCUSSION OF ENVIRONMENTAL IMPACTS

Provide a brief narrative response to **ALL** questions below. If you checked YES to any question in Section I above, provide a detailed discussion of each of those items and why impacts cannot be avoided.

1. *Right-of-Way* – Does the proposed action result in any residential or non-residential displacements, or acquisition of property rights to an extent that impairs the functions of the affected property?

   The project would not require the acquisition of any properties, residences, or businesses and would not result in any residential or non-residential displacements. Land acquisition for hardship or protective purposes is not proposed.

   The project would require temporary construction easements as well as permanent easements. The easements would be located along the edge of the existing roadway and would not impair the functions of the affected properties.

2. *Cultural Resources* – Does the proposed action have an Adverse Effect on historic properties? ***If you only checked YES on this item above, and therefore need to provide a detailed discussion of only this item, please include why an avoidance alternative was not selected.***

   The proposed action would not have an Adverse Effect on historic properties. A "No Historic Properties Affected" Memo was signed in January 2023 (Exhibit D). An inventory of the existing bridge was completed in 2019 and it was found that the bridge is not eligible for the National Register of Historic Places due to a lack of integrity. A Determination of Eligibility was received on July 16, 2019.

   Since the project area is considered archaeologically sensitive, a combined Phase IA/IB archaeological assessment and investigation was completed in 2019. No evidence of pre-contact land use or intact Euroamerican archaeological resources was found. The NH Division of Historical Resources (DHR) concurred with the results of the survey and recommendation that no further surveys are required.

   Two potentially historic properties are located southeast of the bridge, at 249 and 251 Stage Road (NH Route 152). For the preferred alternative, impacts near the two properties would be located within the NHDOT right-of-way and no tree clearing near the buildings would be anticipated. As such, no impacts to these potentially historic properties would be expected. The project was presented at a NHDOT Cultural Resource Agency Coordination meeting on January 14, 2021 and the NH Division of Historical Resources determined that inventory forms for 249 and 251 Stage Road would not be required if the proposed action does not impact these two properties. Meeting minutes are included as Exhibit E.

3. *Section 6(f)* – Does the proposed action require the acquisition or conversion of any land under the protection of Section 6(f) of the Land and Water Conservation Act of 1965?

   The project would not require the acquisition or conversion of any land under the protection of Section 6(f) of the Land and Water Conservation Act of 1965 (LWCF). Based upon a review of LWCF files, the NH Department of Natural and Cultural Resources (DNCR), Division of Parks and Recreation indicated that no impacts to LWCF encumbered properties would be anticipated (Exhibit F).

   In addition, the proposed project has been reviewed by the New Hampshire Land and Community Heritage Investment Program (LCHIP) to determine if any LCHIP conserved properties are located near the project area (Exhibit G). The property on the west side of NH Route 152 (Fernald property, locally known as Mulligan Forest) is an LCHIP-funded conservation project. The project would require the acquisition of temporary construction easements and/or permanent easements on this property. LCHIP forwarded the project information to the Society for the Protection of NH Forests (conservation easement holder) in July 2023. Continued coordination with the Society for the Protection of NH Forests would be required during the final design phase of the project to discuss potential impacts once easement areas are finalized.

The New Hampshire Conservation Land Stewardship (CLS) Program was also contacted to determine if any Land Conservation Investment Program (LCIP) resources are located within the project area. According to the response received from CLSP, there are no CLSP resources within the project area (Exhibit H).

4. *Wetlands/Surface Waters* – Does the proposed action require an Army Corps of Engineers Individual Permit pursuant to the Clean Water Act, and/or a Section 10 permit pursuant to the Rivers and Harbors Act of 1899?

The project would not require an Army Corps of Engineers Individual Permit or a Section 10 Permit. Total wetland impacts that would result from the proposed action are estimated at approximately 4,760 square feet of wetland/watercourse impact and 245 linear feet of watercourse impact (stream channel and banks).

The permanent impacts would occur mostly from construction of the new bridge abutments and the placement of stone for scour protection and the wildlife crossing shelves. In addition, a small amount of permanent wetland impact (approximately 160 square feet) would occur south of the bridge for roadway slope work. Temporary impacts would result from dewatering and stream diversion during construction.

Proposed Estimated Wetland and Stream Impacts

	Wetland (square feet)	*Stream (square feet)*	*Stream (linear feet)*
Permanent	*520*	*2,330*	*170*
Temporary	*670*	*1,240*	*75*
Total	*1,190*	*3,570*	*245*

Since the proposed wetland impacts would total less than 3 acres and the watercourse impacts would total less than 500 linear feet, the project would be anticipated to qualify for a Section 404 General Permit and would not require an Individual Permit. In addition, the project would not require a Section 10 Permit since the North River is not a navigable waterway. The project would be anticipated to require a Wetlands Permit from the NH Department of Environmental Services (NHDES). The project was discussed with NHDES at NHDOT Natural Resource Agency Coordination Meetings in 2019 and 2021 (Exhibit I).

The NH Route 152/North River crossing is considered a Tier 3 crossing and the project is subject to the NHDES Stream Crossing Rules. The average bankfull width for the North River in the vicinity of the project is 30 feet. Due to its wide floodplain, sinuosity, and high entrenchment ratio, the North River is considered a Type E stream according to the Rosgen stream classification system. For compliance with the NHDES stream crossing rules, structures on Type E streams need to have a span of 2.2 times the bankfull width. Using a bankfull width of 30 feet, the DES-compliant span would be 66 feet. The right-of-way impacts and cost associated with installing a bridge with a 66-foot span were determined to not be practicable and this option was not selected as the preferred alternative. The proposed action would lengthen the span from 17 feet to 30 feet, which would accommodate the bankfull width and improve the hydraulic capacity of the crossing. Since the proposed action would not meet the full requirements of the stream crossing rules, an Alternative Design request would need to be included with the NHDES Wetlands Permit application.

Mitigation for wetland impacts would be required since the proposed action would involve permanent impacts to wetlands that are identified as Priority Resource Areas (floodplain wetlands adjacent to a Tier 3 watercourse). The Nottingham Conservation Commission and other town officials were contacted to obtain initial feedback on the project and suggestions for potential local mitigation opportunities. No local mitigation options were identified so it is anticipated that mitigation for the project would involve payment into the NHDES Aquatic Resource Mitigation (ARM) fund. Using the current ARM fund calculator, the anticipated mitigation payment would be $2,516 for 520 square feet of permanent wetland impact. The watercourse impacts would be considered "self-mitigating" under Env-Wt 902.27 since the new bridge would improve hydraulic capacity, span the bankfull width, and add shelves to allow for small animal passage. At the January 20, 2021 Natural Resource Agency Coordination Meeting, NHDES agreed that the stream impacts would be considered self-mitigating.

The North River is subject to the Shoreland Water Quality Protection Act. It is anticipated that the project would require a Standard Shoreland Permit application since work would occur outside of the existing NHDOT right-of-way within the Protected Shoreland zone.

5. *US Coast Guard* – Does the proposed action require a US Coast Guard bridge permit?

   The proposed action would not require a US Coast Guard bridge permit. Since the North River is only navigated by non-motorized boats (canoes and kayaks) and small motorboats, approval from the US Coast Guard is not required under 33 CFR 115.70. For these bridges, the clearances provided for high water stages are considered adequate to meet the reasonable needs of navigation (33 CFR 115.70(a)). The hydraulic analysis completed for the project shows that the proposed bridge clearance would pass the 100-year storm with just over 1 foot of freeboard.

6. *Floodways/Floodplains* – Does the proposed action encroach on the regulatory floodway of water courses or water bodies, resulting in more than a nominal increase in base flood elevation? Does the proposed action have a significant or adverse impact on floodplain values, or create a significant risk to human life or property?

   The project would not encroach on the regulatory floodway of any watercourses or waterbodies. The project would also not have a significant or adverse impact on floodplain values or create a significant risk to human life or property. The segment of the North River near the project does not have a regulatory floodway, however a large portion of the project area is mapped as a Zone A (100-year) floodplain. Correspondence with the NH Floodplain Management Program is included as Exhibit J.

   The hydraulic analysis completed for the project indicated that the proposed bridge would provide the capacity to convey both the 100-year and 500-year flood without weir flow (i.e., flow overtopping the roadway or a controlling grade). For the 100-year flood, over 1 foot of freeboard would be provided. The proposed bridge would eliminate pressure flow conditions at NH Route 152 for both the 100-year and 500-year flood, which would reduce velocities as compared to existing conditions. A minor increase in water surface elevations would occur immediately downstream of NH Route 152 due to the improved opening and reduction in backwater conditions. In consideration of the surrounding floodplain and wetlands, this minor increase would not have an adverse impact on the channel or surrounding properties. Outside of the roadway, the project would result in an estimated 100 cubic yards of fill within the Zone A floodplain. An estimated 55 cubic yards would be removed, so the project would result in a net fill of approximately 45 cubic yards within Zone A floodplain. Given the extensive floodplain within the surrounding area, this fill would not be expected to have a noticeable impact on overall flood storage.

7. *Water Quality* – Does the proposed action have more than a negligible impact on water quality?

   The proposed action would not have more than a negligible impact on water quality. The widening of the bridge and roadway would increase the amount of impervious surface (pavement) by approximately 2,550 square feet.

   Since the project would involve less than 50,000 square feet of overall disturbance, stormwater treatment in accordance with the NHDES Alteration of Terrain rules is not required. Stormwater runoff would sheet flow from the roadway into open drainage ditches, similar to existing conditions. It is assumed that the proposed increase in impervious surface would not be substantial enough to have an impact on water quality in the project area. The project is not located within a community that is subject to the MS4 General Permit.

   Erosion and sedimentation controls would be used to minimize temporary water quality impacts during construction. These controls would be installed and maintained in accordance with the NH Stormwater Manual. Since the project would involve less than one acre of ground disturbance, coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit is not anticipated to be required.

The NHDES 2020/2022 Section 303(d) impaired waters list was reviewed and it was determined that there are no surface waters with transportation-related impairments within 1 mile of the project. There are also no Class A or Outstanding Resource Waters within 1 mile of the project.

The project is located within a Drinking Water Source Protection Area and two wellhead protection areas. The wellhead protection areas are associated with two public water supply wells located south of the project limits. One well is within 200 feet of the southern edge of the project. The NHDES Drinking Water and Groundwater Bureau was contacted and, based on the size and classification of the well, Level 4 protection measures, as listed in the 1995 NHDES "Recommendations for Implementing Groundwater Protection when Siting or Improving Roadways" were recommended within 200 feet of the well and Level 3 protection measures were recommended within 500 feet. Level 4 protection measures include closed drainage that outlets outside of the Level 4 area, raised railings, and non-structural protection methods (i.e., reducing salt application and/or providing local officials and the water supplier with site specific information, including well location, drainage patterns, and protocols for containing spills). Level 3 protection measures include lined grass swales and snow storage areas, diverting runoff out of the area to the extent possible, raised railings, and non-structural protection measures.

These recommendations were reviewed relative to the project. The construction of a lined swale would result in additional wetland impacts and would require curbing and closed drainage, which is not currently present in the project area and is not proposed as part of the design. Under proposed conditions, runoff from the roadway would generally be directed away from the wellhead protection areas and would flow north and west toward the North River and adjacent wetlands. This would address the recommended Level 3 protection measure of diverting runoff out of the wellhead protection area to the extent possible.

Several private drinking water wells are located near the project, but none are within the project limits. No groundwater classification areas are mapped within the vicinity of the project.

8. <u>*Wild and Scenic Rivers*</u> – Does the proposed action require any work below the ordinary high water mark of a river designated as a component of, or proposed for inclusion in, the National System of Wild and Scenic Rivers, or below the high water mark of a tributary to any such river?

   There are no designated or proposed Wild and Scenic Rivers within or adjacent to the project.

9. <u>*Noise*</u> – Is the proposed action a Type I highway project?

   As this project would not involve the construction of a new highway, the addition of through traffic lanes or substantial alterations to either the vertical or horizontal alignment of the existing roadway, the subject project would not be a Type I highway project. Since this project would not be a Type I highway project a noise impact assessment is not necessary.

10. <u>*Endangered Species*</u> – Does the proposed action require an Endangered Species Act (ESA) Section 10 permit, or would the proposed action result in a finding of "*may affect, likely to adversely affect"* threatened or endangered species or critical habitat under the ESA, and require a project-specific Biological Opinion? Does the proposed action result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act?

    The New Hampshire Natural Heritage Bureau (NHB) was contacted to determine if there are any records of state listed species or exemplary natural communities within the project area (Exhibit K). The response from NHB indicated that there are known records of the following state-listed species within the vicinity of the project: climbing hempvine (Mikania scandens), American eel (Anguilla rostrata), Blanding's turtle (Emydoidea blandingii), Northern black racer (Coluber constrictor constrictor), spotted turtle (Clemmys guttata), and wood turtle (Glyptemys insculpta).

    NHB was contacted regarding field survey requirements for climbing hempvine, a state-listed endangered plant species. Climbing hempvine habitat includes riverbanks, riverine marshes, riparian and lacustrine

forests, and thickets. Since the project area includes potential habitat, NHB recommended completing a survey when the plant is in flower (approximately August 4th through October 5th). Since climbing hempvine was not included on a prior NHB report for the project (received in 2019) and the current NHB report was obtained after the preferred timeframe, a field survey for this species has not been completed to date. A survey will need to be conducted during a future project phase and the results reported to NHB. If climbing hempvine is found to be located within the project area, additional coordination with NHB will be completed to incorporate avoidance and minimization measures into the project design.

Since the project would involve potential impacts to state-listed wildlife species, consultation with the NH Fish and Game Department (NHFG) as outlined under NHFG Rule FIS 1004 was required. NHFG provided several recommendations for the design and construction of the project (Exhibit L). These recommendations will be coordinated with the project design team and the final agreed upon conservation measures will be incorporated into the project design.

The US Fish and Wildlife Service's Information for Planning and Conservation (IPaC) website was used to determine if any federally-listed species may be present within the project area. According to the USFWS, northern long-eared bat (NLEB) and monarch butterfly may occur within the vicinity of the project (refer to Exhibit M). The project was reviewed in IPaC using the NLEB Rangewide Determination Key and a determination of No Effect was received (Exhibit N).

The monarch butterfly has become a candidate for listing under the Endangered Species Act (ESA). The USFWS will review the monarch's status each year until resources are available to begin developing a proposal to list the monarch as threatened or endangered under the ESA. The candidate status of the monarch does not provide protection under the Endangered Species Act, and no further coordination with the USFWS is required at this time. Monarch habitat includes non-forested, non-shrubby areas where there is potential for nectar species (flowering plants) and/or milkweed plants, including, but not limited to, regularly or semi-regularly mowed areas within the ROW and where a clear zone is maintained. Conservation measures incorporated into this project include of the use of slope seed mixes that contain native wildflowers.

The USFWS has proposed to list the tricolored bat as endangered, with a determination anticipated in fall of 2023. If the tricolored bat is listed as endangered, consultation with USFWS would be necessary along with incorporation of appropriate avoidance and minimization measures into the project design.

According to the USFWS IPaC website, there are no records of critical habitat within the project area. In addition, the project would not be anticipated to result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act.

11. <u>*Air Quality*</u> – Is the proposed action inconsistent with the State Implementation Plan in air quality non-attainment areas, or the Statewide Transportation Improvement Program, or, in applicable urbanized areas the Transportation Improvement Program? Does the proposed action cause or contribute to violations of the National Ambient Air Quality Standards (NAAQS)?

This project would be consistent with those types of projects listed in Table 2 of 40 CFR 93.126 which are exempt from requiring a regional emissions analysis. For this reason, a regional conformity determination would not be required. This effort would also not require a project level conformity analysis as it would not be located within either a non-attainment or maintenance area for either of the transportation related criteria pollutants of concern at the project level (carbon monoxide and particulate matter). Additionally, when completed, the project would not be expected to result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative or contribute to violations of the NAAQS. As a result, it can be concluded that this project would not have an adverse impact on air quality. No further air quality review is warranted.

12. <u>Contamination</u> – Does the proposed action involve known sources of contamination, which would result in significant adverse environmental impacts or create a significant risk to human life or property*?*

A review of the NHDES OneStop Data Retrieval Site information and the NHDES State-wide Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water Investigation data was conducted to identify any potential contamination issues (Exhibit O). Based upon the data collected and reviewed, one site (the Nottingham Municipal Solid Waste Facility) had PFAS detected above ambient groundwater quality standards (AGQS). This site is located approximately 2,500 feet northeast of the bridge and is an unlined landfill that was closed in 2003. A surface water sample result located approximately 800 feet northeast of the bridge and south of the landfill also had PFAS detected above AGQS. Another surface water sample taken from the North River at the bridge in 2020 did not have any PFAS detected in the sample.

According to NHDES OneStop, three remediation sites and one aboveground storge tank site are located within 1,000 feet of the project. These sites do not appear to present any potential contamination issues since they have either been closed by NHDES or have not had any known spills or leaks.

No evidence of potential contamination sources was observed within the vicinity of the project during a site visit. In addition, no monitoring wells were observed within project limits.

The Bureau of Bridge Design reviewed its records to determine if the bridge contains asbestos or lead paint. Although the bridge was constructed in 1925, before asbestos was in use, asbestos may be present in the pavement or bridge membrane. Testing would need to occur prior to construction to determine if asbestos is present. It is assumed that lead paint is present on the bridge girders. Work that involves the removal of any material containing asbestos or lead paint would be done in accordance with applicable state and federal rules and regulations.

Statewide analytical data collected by the Department, as well as nationwide information, indicates that soils associated with transportation corridors commonly contain metals and Polycyclic Aromatic Hydrocarbons (PAHs) at concentrations above background conditions. Disturbances to these "Limited Reuse Soils" (LRS) within the operational right-of-way would be anticipated during construction and would be handled in accordance with applicable state rules and regulations. Soils that are anticipated to meet the definition of LRS may be subject to management through a Soils Management Plan (SMP).

13. <u>Other</u> - Are there any unusual circumstances that would require additional environmental studies (e.g. substantial environmental controversy, or inconsistency with other environmental requirements)*?* ****You may also use this section to provide details on any other environmental issue and/or concern not specifically discussed above even if it did not trigger a <u>YES</u> response (e.g. invasive species, stonewalls, etc.).***

<u>*NH Designated Rivers*</u>
As part of the Lamprey River watershed, the North River is a NH Designated River. The Lamprey Rivers Local Advisory (LRAC) was contacted in 2019. Their response noted that the area is rich in wetlands and that sand pits are nearby, although they had no specific concerns about the project without more detailed information (Exhibit P). The LRAC was contacted again in September 2022 and a response was not received.

<u>*Invasive Species*</u>
Multiflora rose (Rosa multiflora) and Tatarian honeysuckle (Lonicera tatarica) are located within the project limits, along the western side of NH Route 152, between the roadway and the wetland. All project activities will adhere to the NHDOT Best Management Practices for the Control of Invasive and Noxious Plant Species Manual.

<u>*Fisheries*</u>
Based on a review of the National Oceanic and Atmospheric Administration (NOAA) Essential Fish Habitat (EFH) Mapper, the North River is not designated as Essential Fish Habitat. According to the NHB report,

American eel (a Special Concern species) has been recorded in the North River downstream of the project. NHFG recommended that site operators be informed of the potential presence of this species. Best Management Practices (BMPs) would be used during construction to minimize the potential for impacts to downstream fisheries.

Farmland Soils
The land at the southern end of the project is mapped as Farmland of Local Importance (Exhibit R). The project is anticipated to require permanent easements in this area for roadway slope work and extension of guardrail. Since this land is not currently in agricultural use, no impact to existing farmland would be anticipated. Since the project is not anticipated to receive federal funding, it is not subject to review under the Farmland Protection Policy Act.

SECTION III: SUMMARY OF PUBLIC INVOLVEMENT

Initial Contact Letters sent to local officials?	Yes ☒	No ☐	Date: *7/15/2019, 9/27/2022*
Public Informational Meeting held?	Yes ☒	No ☐	Date: *11/19/2021*
Public Hearing Required?	Yes ☒	No ☐	Date *Late 2023 (tentative)*
Natural Resource Agency Meeting(s) held?	Yes ☒	No ☐	Dates: *11/20/2019, 1/20/2021*
Cultural Resource Agency Meeting(s) held?	Yes ☒	No ☐	Date: *1/14/2021*

Discuss below any other opportunities for public input, as well as any relevant changes that were made as a result of public input.

The following agencies and local officials were contacted to obtain input on the project: NH Conservation Land Stewardship Program, NH Department of Natural & Cultural Resources Land and Water Conservation Fund, NH Land & Community Heritage Investment Program, NH Floodplain Management Program, the Strafford Regional Planning Commission, the Lamprey Rivers Advisory Committee, and the Nottingham Planning Board, Board of Selectmen, Conservation Commission, Historical Society, Fire Department, Police Department, and Highway Department.

A public officials meeting was held on February 8, 2021 and a public informational meeting was held on November 19, 2021. A public hearing is scheduled to occur in late 2023.

SECTION IV: LIST OF EXHIBITS

Exhibit A: USGS Map

Exhibit B: Aerial Map

Exhibit C: Detour Route

Exhibit D: No Historic Properties Affected Memo

Exhibit E: NHDOT Cultural Resource Agency Coordination Meeting Minutes

Exhibit F: Land and Water Conservation Fund Correspondence

Exhibit G: NH Land and Community Heritage Investment Program Correspondence

Exhibit H: NH Conservation Land Stewardship Program Correspondence

Exhibit I: NHDOT Natural Resource Agency Coordination Meeting Minutes

Exhibit J: NH Floodplain Management Program Correspondence

Exhibit K: NH Natural Heritage Bureau Correspondence

Exhibit L: NH Fish and Game Department Correspondence

Exhibit M: US Fish and Wildlife Service Correspondence

Exhibit N: US Fish and Wildlife Service NLEB No Effect Letter

Exhibit O: Summary of Contaminated Properties Review

Exhibit P: Lamprey River Advisory Committee Correspondence

Exhibit Q: Farmland Soils Map

Exhibit R: Photographs

SECTION V: ENVIRONMENTAL RE-EVALUATION

If this Environmental Review Short Form is a re-evaluation of an approved environmental document, check the box below and describe the changes, if any, in design and environmental impact. Ensure that any additional or revised environmental commitments that resulted from the changes are detailed in **Section VI: Environmental Commitments** below.

☐ This Environmental Review Short Form is a re-evaluation of an approved environmental document, and the original approval remains valid.

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SECTION VI: ENVIRONMENTAL COMMITMENTS

1. Coordination with the Society for the Protection of NH Forests shall occur once easement areas are finalized to determine potential impacts to the conservation property on the west side of NH Route 152 (Fernald property, locally known as Mulligan Forest). **(Design/Environment)**

2. Permits from the NHDES Wetlands and Shoreland Bureaus and the US Army Corps of Engineers shall be obtained prior to construction. **(Design/Environment)**

3. Prior to the commencement of work, all appropriate erosion and stormwater management measures shall be installed to prevent detrimental environmental impacts. Such measures shall be inspected and maintained throughout construction. **(Construction)**

4. The project area is located within a Drinking Water Source Protection Area and partially within two wellhead protection areas. Stringent best management practices shall be utilized to prevent adverse impacts to water quality. **(Construction)**

5. A field survey for climbing hempvine (*Mikania scandens*) shall be completed between August 4th and October 5th within the proposed project limits. If found, the plants shall be located with GPS and photographed. The results of the survey shall be provided to the NH Natural Heritage Bureau (NHB) and coordination with NHB shall be completed to identify appropriate avoidance and minimization measures for the project. **(Design/Environment)**

6. All operators and personnel working on or entering the site shall be made aware of the potential presence of rare, threatened, and endangered species (Blanding's turtle, spotted turtle, northern black racer, wood turtle, and American eel). Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during the project's preconstruction meeting prior to work and rare species flyers shall be included on the project's bulletin board. The rare species commitments shall be included in the project's *Summary of Environmental Issues* and the rare species flyers shall be included in the project's contract. **(Construction)**

7. All observations of threatened or endangered species on the project site shall be reported immediately to the NHFG nongame and endangered wildlife environmental review program by phone at 603-271-2461 or by email at NHFGreview@wildlife.nh.gov, with the email subject line containing "Wildlife Species Observation – NHB22-3131, North River, NHDOT Bridge No. 141/127, Nottingham." Photographs of the observed species and nearby elements of habitat or areas of land disturbance will be provided to NHFG in digital format at the above email address for verification, as feasible. **(Construction)**

8. In the event a threatened or endangered species is observed on the project site during the term of the permit, NHFG shall be contacted immediately (603-271-2461) and the species shall not be disturbed, handled, or harmed in any way prior to consultation with NHFG and implementation of corrective actions recommended by NHFG. **(Construction)**

9. The NHFG, including its employees and authorized agents, shall have access to the property during the term of the NHDES wetland and/or shoreland permits. For safety reasons, NHFG employees and authorized agents shall arrange access with the Contract Administrator or Environmental Coordinator prior to visiting the project site. **(Construction)**

10. Turtles may be attracted to disturbed ground during nesting season (May 15th to June 30th). All turtle species nests are protected by NH laws. If a nest is observed or suspected, operators shall contact

Melissa Winters (603-479-1129) or Josh Megyesy (978-578-0802) at NHFG immediately for further consultation. **(Construction)**

11. Black silt fence shall be anchored over the ground surface of exposed soils along the south side of the bridge prior to turtle nesting season (May 15th to June 30th) to prevent turtles from laying eggs in the work zone. **(Construction)**

12. If the USFWS lists the Tricolored Bat under the Endangered Species Act and the project's proposed impacts to Tricolored Bat habitat will not be complete prior to the effective date of the listing, consultation with USFWS shall be completed. If any avoidance and minimization measures are selected for the project during consultation, those measures shall be incorporated into the project prior to the Tricolored Bat effective listing date. **(Design/Construction)**

13. The proposed bridge structure shall have an open bottom consisting of natural stream material. Stream bed material shall not include sharp, angular surfaces, such as riprap. If riprap must be used, it shall be covered with natural stream material to mimic upstream and downstream streambed conditions. **(Design/Construction)**

14. Dry wildlife passage shall be incorporated into the design considerations under the proposed bridge. Riprap or large stones shall be used to construct a wildlife shelf. **(Design/Construction)**

15. Voids within riprap, such as under the bridge up to the abutments and within the wildlife shelf, shall be filled with finer material (i.e., native material in between riprap) to create a relatively smooth surface for wildlife to traverse. **(Design/Construction)**

16. "Wildlife friendly" erosion control products that do not contain plastic filaments, netting, or mesh, shall be used during construction. **(Construction)**

17. Contaminated soil or groundwater is not anticipated during construction; however, if it is encountered work shall be stopped immediately. **(Construction)**

18. Testing for lead paint and asbestos containing material shall be conducted prior to construction. Work that involves the removal of any material containing asbestos or lead paint shall be done in accordance with applicable state and federal rules and regulations. **(Design/Construction)**

19. Limited Reuse Soils (LRS) excavated or collected from within the operational ROW shall be addressed in accordance with applicable NHDES rules, waivers, and/or Soils Management Plans. **(Construction)**

20. The project area contains species that are listed on the NH List of Prohibited Invasive Species. All appropriate measures shall be taken to avoid spreading invasive plants during construction; If these plants cannot be avoided, all work, including daily removal of plant material from construction equipment, shall be conducted in accordance with the NHDOT publication *Best Management Practices for Roadside Invasive Plants*. **(Construction/Environment)**

21. All work shall be located within the areas shown on the plans. If the scope of work changes and necessitates work outside these areas, work cannot be completed without additional coordination with the Bureau of Environment. **(Construction/Environment)**

SECTION VII: APPROVAL DETERMINATION

Check the appropriate box below.

☒ Sections I-VI satisfy the environmental documentation process for this project, and an alternatives analysis is not required.

☐ Because the response to two (2) or more questions in Section 1 is **YES**, an alternatives analysis is required. Continue with **Section VIII: Alternatives Analysis** on the following pages.

Prepared by:

Jennifer Riordan
Senior Environmental Scientist
GM2 Associates, Inc.

August 18, 2023
Date

Approval Recommended By:

Digitally signed by Jonathan A. Evans
DN: cn=Jonathan A. Evans, o=NHDOT, ou=Bureau of Environment, email=Jonathan.Evans@dot.nh.gov, c=US
Date: 2023.08.22 09:57:01 -04'00'

Section Chief
NHDOT Bureau of Environment

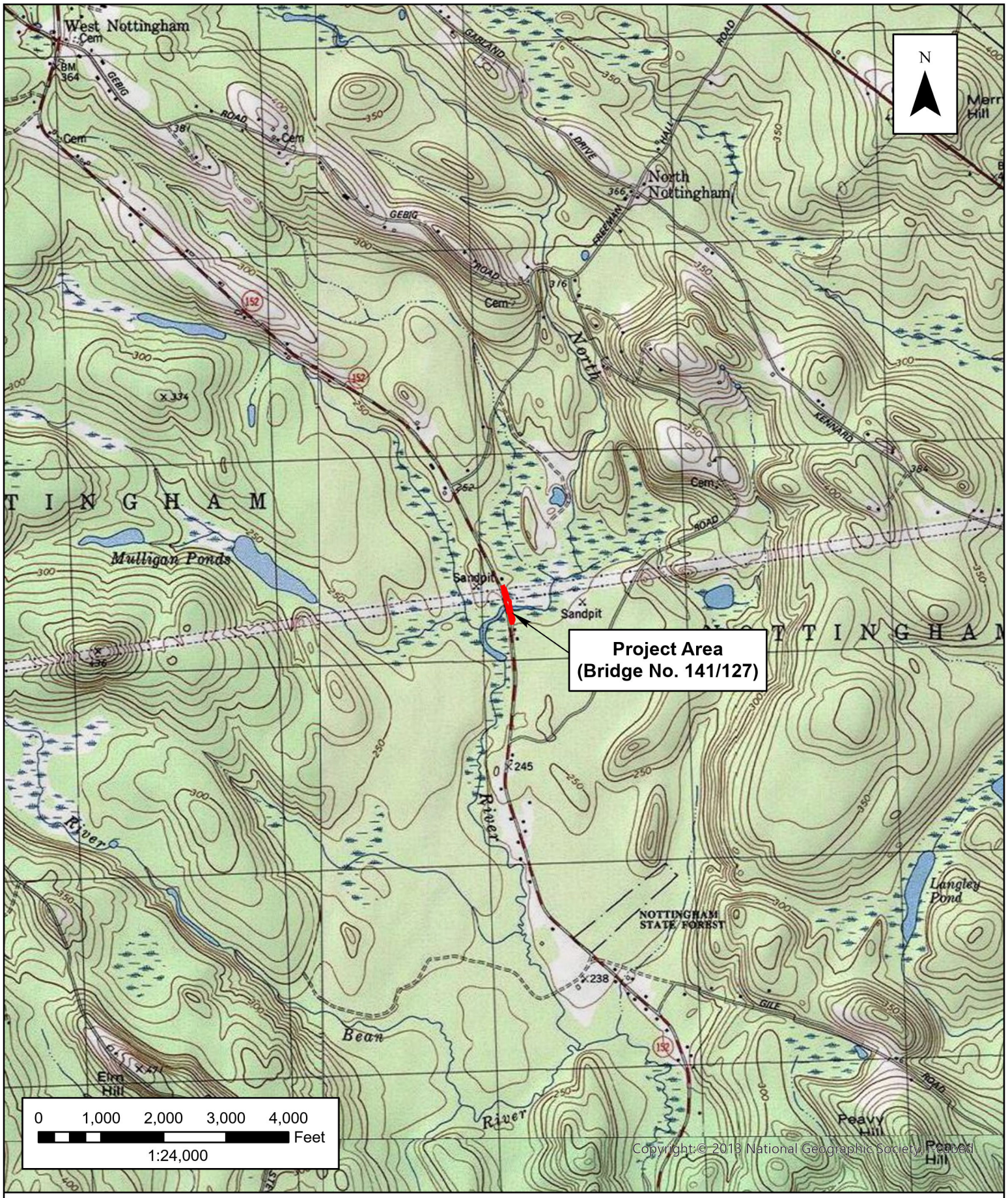
Date August 18,2023
Date

Approved by:

Administrator
NHDOT Bureau of Environment

8/22/2023
Date

Exhibit A
USGS Map



New Hampshire DOT
Department of Transportation

Exhibit A
USGS Map
Nottingham 40612

GM2

Exhibit B
Aerial Map

New Hampshire DOT
Department of Transportation

Exhibit B
Aerial Map
Nottingham 40612

GM2

Exhibit C
Detour Route

New Hampshire DOT
Department of Transportation

BARRINGTON
NORTHWOOD
NOTTINGHAM
DEERFIELD
LEE
EPPING

US ROUTE 4
7.4 MILES
2.0 MILES
FREEMAN HALL ROAD
STAGE ROAD
NH ROUTE 152
3.3 MILES
141/127
NOTTINGHAM ELEMENTARY SCHOOL
NOTTINGHAM FIRE DEPARTMENT
NOTTINGHAM POLICE DEPARTMENT
SMOKE STREET
2.6 MILES
NH ROUTE 125
CALEF HIGHWAY
4.1 MILES
MCCRILLIS ROAD
2.0 MILES
NH ROUTE 156
6.0 MILES
OHIO

LEGEND

- DETOUR
- ALT. DETOUR
- US ROUTES
- STATE ROUTES
- TOWN BORDERS
- SCHOOL
- POLICE DEPARTMENT
- FIRE DEPARTMENT

SCALE:
1"=1500'-0"

GM2

Exhibit D
No Historic Properties Affected Memo

New Hampshire DOT
Department of Transportation

William Cass, P.E.
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

David Rodrigue, P.E.
Assistant Commissioner
Andre Briere, Colonel, USAF (RET)
Deputy Commissioner

RECEIVED DEC 2 9 2022

RECEIVED
BUREAU OF ENVIRONMENT
JAN 0 9 2023
NH DEPARTMENT
OF TRANSPORTATION

NOTTINGHAM
40612
RPR 10862

No Historic Properties Affected Memo

Pursuant to the Request for Project Review signed on July 9, 2019 and meetings and discussions on January 14, 2021, and for the purpose of compliance with regulations of the National Historic Preservation Act, the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), and the US Army Corps of Engineers' *Appendix C*; the NH Division of Historical Resources (SHPO) and the US Army Corps of Engineers (ACOE) have coordinated the identification and evaluation of cultural resources with plans to replace the bridge that carries NH Route 152 over the North River (Bridge No. 141/127) in Nottingham.

Project Description

This project would replace the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham. The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span that was constructed in 1925 and rebuilt in 1970. The preferred alternative would replace the existing structure with a 30-foot span bridge. The preferred alternative also involves 200 feet of roadway widening on each side of the bridge to transition the additional three feet on each side of the roadway at each bridge approach back to the existing roadway. As currently proposed, the bridge would be closed during construction and traffic would be detoured.

Impacts would be limited to the area around the bridge, although some widening of the roadway is required. Easements would be required around the bridge and for slope impacts beyond the existing NHDOT right-of-way.

Analysis

Based on a review pursuant to 36 CFR 800.4, Bridge No 141/127 was found not eligible (NOT0025) for the National Register of Historic Places due to a lack of integrity. A Determination of Eligibility was received on July 16, 2019.

Since the project area is considered archaeologically sensitive, a combined Phase IA/IB archaeological assessment and investigation was completed. No evidence of pre-contact land use or intact Euro-American archaeological resources were found. SHPO concurred with the results of the survey and recommendation that no additional survey was required.

Two potentially historic properties are located southeast of the bridge, at 249 and 251 Stage Road (NH Route 152). For the preferred alternative, impacts near the two properties would be located within the NHDOT right-of-way and no tree clearing near the buildings is anticipated. As such, no impacts to these potentially historic properties are expected from the preferred alternative, and survey was not recommended.

Public Consultation

NHDOT initial contact letters were sent to the Town, including the Historical Society. Additional letters were sent to the NH Conservation Land Stewardship Program, the NH Land and Community Heritage Investment Program, and the NH Land and Water Conservation Fund, the Lamprey Rivers Advisory Committee, and the Strafford Regional Planning Commission. This project was also presented at a Public Officials Meeting on February 8, 2021 and a Public Informational Meeting on November 19, 2021.

Determination of Effect

Based on the project plans, ACOE has determined that there are no historic or archeological resources present in the permit area and that no additional information is needed.

In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

Jill Edelmann — 12/27/2022

Jill Edelmann
Cultural Resources Manager
Date

Concurred with by the NH State Historic Preservation Officer:

Nadine Miller, DSHPO — 1/5/2023

Nadine Miller
Deputy State Historic Preservation Officer
NH Division of Historical Resources
Date

c.c. Michael Hicks, ACOE
Rebecca Martin, NHDOT
Jason Tremblay, NHDOT
Jenn Riordan, GM2

Exhibit E

NHDOT Cultural Resource Agency Coordination Meeting Minutes

BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: Monthly SHPO-FHWA-ACOE-NHDOT Cultural Resources Meeting
DATE OF CONFERENCES: January 14, 2021
LOCATION OF CONFERENCE: Zoom Meeting

ATTENDED BY:

NHDOT
Joe Adams
Maggie Baldwin
Sheila Charles
Ron Crickard
Mike Dugas
Jill Edelmann
Jonathan Hebert
Bob Juliano
Sarah Large
Marc Laurin
Don Lyford
Rebecca Martin
Dan Prehemo
Tobey Reynolds
John Sargent
David Scott
Jason Tremblay
Tony Weatherbee
Hans Weber

NHDHR/NHDNCR
Laura Black
David Trubey

FHWA
Jamie Sikora

City of Franklin
Dick Lewis

Friends of the Northern Rail Trail
George Heaton

GM2
Tom Levins
Jenn Riordan

Hardesty & Hanover
Kimberly Smith

HTA
Steve Haas
Aaron Lachance
Paul Lovely
Kimberly Peace
Ed Weingartner

McFarland-Johnson
Brian Colburn
Ron Joy
Christine Perron

Preservation Company
Lynne Monroe

TRC
Vicki Chase

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

Woodstock 27713, R & C 10622 (no federal number)
Participants: Vicki Chase, TRC; Kimberly Smith, Hardesty & Hanover; Joe Adams, Bob Juliano, Sarah Large, NHDOT

This is the Second Consultation for the rehabilitation of Bridge No. 177/148 carrying NH 175 over the Pemigewasset River in Woodstock, NH. The purpose of the meeting is to review the elements of the bridge that are character defining and discuss the proposed rehabilitation of those elements.

Bridge Element	Condition	Recommendation	Significance of Design Feature
Abutments	In fair condition, spalled concrete.	Patching and coating only.	Not Significant

The rehabilitation study report is being finalized based in part upon input from DHR, then the project will go to a public information meeting in spring 2021, and to construction in 2023.

Discussion:
L. Black asked if the features noted as "significant" were character-defining. K. Smith stated that in their review they had looked at which features were unique for their time, that represented engineering advances of the 1930's. L. Black noted that character-defining features could be those that are standard for the bridge type as well as unique or represent advances. L. Black asked if the DHR historic bridge inventory had been used for this review. Kim was not sure but thought not. J. Edelmann said that she believed she had shared it with the historic subconsultant, Lisa Mausolf, but would doublecheck. L. Black noted that some features that were not identified as significant might be good examples of their time, i.e. might be character-defining. L. Black reviewed the DHR Historic Bridge Inventory and found that some features that were not identified as significant were identified in the Historic Bridge Inventory report as character defining. Those features were: Original railings, original substructure, and aesthetic details. Aesthetic details are the end posts, three of which have already been replaced in-kind, but they are character-defining. K. Smith stated that the goal of the design was to mimic what was already there, with some exceptions such as the deck which will not be an open grate deck. L. Black said she wasn't sure about the floor beam placement, that they were also perhaps character-defining, as well as the open grate deck (she realizes the open grate deck is not practical to replace in kind).
L. Black also said that public coordination is important.
D. Trubey asked if a staging area has been identified and noted that the area around the river may be sensitive for archaeology. K. Smith stated that since the bridge will be closed the road approaches will be used for staging. D. Trubey stated that in that case there would be no concerns with archaeology.
L. Black stated that it might be helpful to consider what changes are proposed and how they will affect the bridge in an effect table. V. Chase noted that the project was state-funded, although it has a federal number. Therefore, there will be no Section 4(f) compliance needed as there is no FHWA involvement. J. Edelmann asked if there would be a wetland permit. V. Chase stated that it is unknown at this time, but conservatively that will be the assumption. If there is a wetland permit required, the USACE will be the federal nexus for Section 106.
L. Black noted that the effects to the Meadowlark Motor Court (unlikely any effect) and the Route 3 Cultural Landscape also needed to be considered. Effect tables should be drawn up for each of these as well.
J. Sikora suggested keeping 4(f) on the table in case federal funding comes back to the project

Nottingham 40612, R & C 10862 (no federal number)
Participants: Jennifer Riordan, Tom Levins, GM2; Ron Crickard, Sarah Large, Rebecca Martin, David Scott, Jason Tremblay, Tony Weatherbee, NHDOT

Jenn Riordan (GM2) presented the project. The project is state funded so the US Army Corps of Engineers (ACOE) is the lead federal agency, not FHWA. This is an initial meeting to introduce the project, review the completed cultural resource investigations, and discuss the need for historic resource inventory of an adjacent parcel. An Individual Inventory form was completed for the bridge and it was determined Not Eligible. A Phase IA/IB archaeological survey was completed and no further survey was recommended.

The area adjacent to the bridge is mostly wetland. Powerlines are located to the north. A house and daycare are located southeast of the bridge and Nottingham Elementary School is located further south. A recently constructed residence is located to the northeast.

The existing bridge is a reinforced concrete jack-arch, single span structure. It was constructed in 1925 and rebuilt in 1970. It has stone and concrete abutments and wingwalls and is currently on the State's Red List.

The Preferred Alternative involves replacement of the bridge with a 30-foot span structure. Rehabilitation of the bridge is not a viable option since the substructure has deteriorated to a point where it can't be repaired. The existing hydraulic opening is also a concern. The entire bridge needs to be replaced. The project will also involve 400 feet of roadway widening (200 feet on each side of the bridge). There are several traffic control options. The Preferred Alternative would involve closing the bridge during construction and detouring traffic. The detour is about 20 miles on state roads and 12 miles on local roads. The bridge would be closed for 28 days. Construction would take one season. This traffic control option would have the least amount of impact to environmental resources. Another alternative would involve phased construction, which would maintain one lane of traffic in each direction. This would require additional widening of the proposed structure. Construction would take two seasons. The third traffic control alternative would involve construction of an offline temporary bridge that would allow the road to remain open during construction but would result in additional wetland impacts. Construction would take two seasons.

Design of the project is ongoing. A Public Officials Meeting is scheduled for February 8, 2021. GM2 contacted the Nottingham Historical Society but did not receive a response. The advertisement date is currently in 2024.

A RPR was submitted in 2019. The response indicated that the project area is archaeologically sensitive and a survey was necessary. Phase IA & IB surveys were completed and no further survey was recommended. Inventory of the existing bridge was recommended. This was completed and it was determined that the bridge is Not Eligible. The RPR response also indicated that inventory of 251 Stage Road may be necessary if the property is impacted. Continued consultation was recommended.

The results of the Phase IA/IB archaeological survey were discussed. IAC completed the study in 2019. DHR concurred with the finding that no further survey is required.

An Individual Inventory Form for the bridge was completed by Historic Documentation Company. The bridge was determined Not Eligible since it was altered in 1970 and does not retain integrity.

There are two potentially historic properties located southeast of the bridge (251 and 249 Stage Road). 251 Stage Road is a residence that was constructed around 1910. 249 Stage Road is currently a daycare and was constructed around 1947. For the preferred alternative, impacts near the two properties would be located within the NHDOT right-of-way. Any tree clearing would be located closer to the bridge. There are a few large trees near the road just north of #251 but it is not anticipated that these trees would need to be cleared for the preferred alternative. There are some stones along the road in front of #251 but no stone walls were found. Other traffic control options (phased construction or temporary bridge) could require a wider footprint. The DHR RPR response said that inventory of 251 Stage Road might be necessary if bridge replacement required impacts.

Laura Black (DHR) stated that an inventory form for 251 Stage Road is not required if there are no impacts to the property. Jill Edelmann (DOT) mentioned that if project plans change and a different alternative is preferred, then consultation would need to be continued and inventory of the property may be necessary. Jill stated that a No Historic Properties Affected finding would be appropriate for the project as currently proposed. GM2 is tasked with preparing the Section 106 memo. Jill will provide a template to GM2.

Exhibit F
Land and Water Conservation Fund Correspondence

Jennifer Riordan

From: DNCR: Land & Water Conservation Fund <LWCF@dncr.nh.gov>
Sent: Tuesday, May 16, 2023 8:49 AM
To: Jennifer Riordan; DNCR: Land & Water Conservation Fund
Subject: [WARNING-EXT] RE: NHDOT Project - Nottingham 40612

Jenn,

Based on the information provided there are no Land and Water Conservation Fund State Assistance funded project sites within the vicinity of the proposed bridge project.

Thanks
Eric

Eric Feldbaum-Administrator/CPRP
Bureau of Community Recreation
Division of Parks and Recreation
NH Department of Natural and Cultural Resources
172 Pembroke Road
Concord, NH 03301
Phone 603.271.3556
Fax 603.271.3553
eric.feldbaum@dncr.nh.gov
www.nhstateparks.org

From: Jennifer Riordan <JRiordan@GM2INC.COM>
Sent: Friday, April 28, 2023 9:55 AM
To: DNCR: Land & Water Conservation Fund <LWCF@dncr.nh.gov>
Subject: NHDOT Project - Nottingham 40612

The New Hampshire Department of Transportation (NHDOT) is planning the subject project to replace the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham (NHDOT Project No. 40612) (see attached map). The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span. It will be replaced with a 30-foot span bridge. The project also involves 200 feet of roadway widening on each side of the bridge to transition the additional three feet on each side of the roadway at each bridge approach back to the existing roadway.

GM2 Associates, Inc. is responsible for the engineering design and preparation of the environmental documentation for the project. Engineering studies have been initiated to refine the scope and limits of work necessary for this project and potential environmental impacts are being evaluated. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

Please feel free to contact me if you have any questions or require further information regarding the project. Thank you for your assistance.

Jenn

CT | RI | NH | MA | NY | FL
www.gm2inc.com

JENNIFER RIORDAN, CWS, CPESC
Senior Environmental Scientist
P 603.856.7854
C 603.724.4950

Exhibit G

NH Land and Community Heritage Investment Program Correspondence

Jennifer Riordan

From: Ben Engel <BEngel@lchip.org>
Sent: Wednesday, July 5, 2023 10:21 AM
To: Jennifer Riordan
Subject: [WARNING-EXT] RE: NHDOT Project - Nottingham 40612

Hi Jenn,

It appears I was mistake as to the easement holder of the abutting property. It seems like it is a conservation easement held by the Forest Society. I have alerted their stewardship coordinator, and have asked her to keep me in the loop. It appears that the Forest Society, as easement holder, would need to sign off on any easements, either temporary or permanent. It's not clear to me at this time whether LCHIP would need to be involved in that process. I'll let you know if and when I hear anything from the Forest Society.

Thanks,

Ben

From: Jennifer Riordan <JRiordan@GM2INC.COM>
Sent: Monday, July 3, 2023 11:33 AM
To: Ben Engel <BEngel@lchip.org>
Subject: NHDOT Project - Nottingham 40612

Hi Ben,

We contacted you previously regarding the subject project (see attached correspondence) and I wanted to follow up with some additional details. We anticipate that the project will require temporary construction easements and/or permanent drainage and slope easements on an LCHIP-funded property. The property is located on the west side of NH Route 152. The easement areas have not yet been determined. We received an email from you in September 2022 indicating that you forwarded the project information to the landowner (Southeast Land Trust). At that point, we weren't aware of the need for easements, so I wanted to follow up in case further coordination with SELT is required.

Here's the project description:
The NH Department of Transportation (NHDOT) is proposing to replace the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham (see attached map). The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span and is currently on the State's Red List. It would be replaced with a 30-foot span bridge. The project would also involve 200 feet of roadway widening on each end of the bridge to transition the additional three feet on each side of the roadway at each bridge approach back to the existing roadway. The bridge would be closed during construction and traffic would be detoured. The purpose of the project is to improve safety by replacing a deteriorated bridge with a new structure. Rehabilitation of the existing bridge is not feasible due to the poor condition of the existing substructure. In addition, the existing bridge is undersized and does not convey the 100-year storm. The proposed project would increase the hydraulic capacity of the crossing. The NHDOT project number is 40612.

Please let me know if you need any additional project information. Thanks for your assistance.

Jenn

CT | RI | NH | MA | NY | FL
www.gm2inc.com

JENNIFER RIORDAN, CWS, CPESC
Senior Environmental Scientist
P 603.856.7854
C 603.724.4950

Exhibit H

NH Conservation Land Stewardship Program Correspondence

From: Harding, Charlotte <Charlotte.J.Harding@clsp.nh.gov>
Sent: Tuesday, September 27, 2022 4:14 PM
To: Ethan Maskiell
Subject: [WARNING-EXT] RE: NHDOT Project - Nottingham 40612

Hello Ethan,

There are no LCIP properties in the project area, we have no concerns. Thanks for checking in with us.

Charlotte

Charlotte Harding
Stewardship Specialist
Conservation Land Stewardship Program
107 Pleasant Street | Concord, NH 03301
Office: (603) 271-6809
Charlotte.J.Harding@clsp.nh.gov
www.clsp.nh.gov

From: Ethan Maskiell <EMaskiell@GM2INC.COM>
Sent: Tuesday, September 27, 2022 3:37 PM
To: Harding, Charlotte <Charlotte.J.Harding@clsp.nh.gov>
Subject: NHDOT Project - Nottingham 40612

Dear Ms. Harding,

The New Hampshire Department of Transportation (NHDOT) is planning the subject project to replace the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham (NHDOT Project No. 40612) (see attached map). The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span. It will be replaced with a 30-foot span bridge. The project also involves 200 feet of roadway widening on each side of the bridge to transition the additional three feet on each side of the roadway at each bridge approach back to the existing roadway.

GM2 Associates, Inc. is responsible for the engineering design and preparation of the environmental documentation for the project. Engineering studies have been initiated to refine the scope and limits of work necessary for this project and potential environmental impacts are being evaluated. Any comments you may have concerning resources or issues within the study area will assist in the preparation of the environmental documents.

The project is tentatively scheduled to be advertised in 2024. Please feel free to contact me at emaskiell@gm2inc.com or 603-856-7854 if you have any questions or require further information regarding the project. Thank you for your assistance.

Ethan

CT | RI | NH | MA | NY | FL
www.gm2inc.com

ETHAN MASKIELL
Environmental Scientist
P 603.856.7854

Exhibit I

NHDOT Natural Resource Agency Coordination Meeting Minutes

BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: November 20, 2019
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Sarah Large
Ron Crickard
Andrew O'Sullivan
Arin Mills
Toney Weatherbee
Tobey Reynolds
Rick Faul
Kerry Ryan
Rebecca Martin
Stephanie Micucci
David Scott

ACOE
Mike Hicks
Rick Kristoff

NHDES
Karl Benedict
Seta Detzel

NH Fish & Game
Carol Henderson

NH NHB
Amy Lamb

Consultants/Public Participants
Tom Levins
Jennifer Riordan

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.)

Andy further clarified this will be under the existing rules and during a flooding event the roadway will not be compromised. Seta and Karl stated if the crossing is attenuating water then an alternative design is appropriate, but if the water overtops the roadway an analysis will be required to ensure the integrity of the roadway will be maintained. Karl mentioned alternative design is required if the water will overtop the pipe and alternative design will be required. Sarah said we will verify with project manager on calculations and determine the appropriate form.

Arin discussed the 5'CMP crossing further downstream and that much of the flood storage capacity will be held in the upstream agricultural wet meadow. Upstream east and downstream is a forested wetland. The design plan was shown with the 5' extension on the inlet and 6' on the outlet to extend the road shoulder, no perch. Resource review found no NHB "hits", NLEB consistency determination, no FEMA floodplains, it is a Tier 2 crossing, a proposed AoT permit by rule and has "No Potential to Cause Effect" for cultural review. Arin showed and discussed the erosion control plan of the coffer dam and dewatering into silt bags with erosion control at the perimeter. Arin said the anticipated total impacts are 932 s.f. of permanent and 1,215 s.f. of temporary. Seta asked the anticipated construction date and Arin said summer of 2020. There was a review of the plans and both temporary and permanent impacts. Sarah agreed that a meeting with Lori would be set up to discuss mitigation requirements and potential for self-mitigation under the existing rules.

Mike verified IPaC results and Arin said 4(d) rule consistency was determined as the NLEB was the only species returned for both locations.

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

Nottingham, #40612

Tom Levins from GM2 Associates provided an overview of the project, which involves the replacement of the bridge that carries NH Route 152 over the North River in Nottingham. The project is currently in the preliminary design phase and alternatives are being considered. The substructure has deteriorated to a point that rehabilitation is not a feasible option. The existing width of 29 feet is also substandard and the existing hydraulic opening does not convey the Q100 storm event. The project is currently scheduled to advertise in 2024.

The existing bridge was constructed in 1925 and rebuilt in 1970. The existing span is 17 feet. The bridge is on the State's Red List and the purpose of the project is to replace the deteriorated bridge. Alternatives that are being considered include:

- 20-foot clear span. This is the minimum required to convey the Q100 storm event. It would not convey the Q500 storm event. Analysis to determine upstream and downstream impacts is ongoing. This alternative would not require raising the grade of the road and would therefore have less impact on the adjacent wetlands and properties.
- 38-foot clear span. This would meet the Stream Crossing Rules (if 1.2xBFW+2 equation is used). The road would need to be raised, resulting in more impact to adjacent wetlands and properties.

Traffic control options include closing NH Route 152 for 21 to 28 days and detouring traffic. This option would utilize accelerated bridge construction. Another option is phased construction with one lane, signalized alternating traffic.

Karl Benedict (NHDES) asked if the project is located in a floodplain. Tom confirmed that it's in a Zone A floodplain. Karl also asked about watershed size. Jenn Riordan (GM2) stated that the watershed is approximately 6,800 acres so it's a Tier 3 crossing.

Jenn provided an overview of the natural resources. The North River is a Designated River as part of the Lamprey River Watershed. It's also subject to the Shoreland Water Quality Protection Act. There are emergent/scrub-shrub wetlands adjacent to the North River on both sides of NH Route 152. The area is very flat. At the time of the wetland delineation, the North River had very slow flow velocity. The bankfull width was determined to be approximately 30 feet and the Rosgen classification is Type E.

There was a discussion of whether a longer span is necessary for compliance with the NHDES Stream Crossing Rules since the crossing is on a Type E stream. NHDES stated that the entrenchment ratio multiplier should be used on Type E streams (2.2xBFW). The span would likely need to be 60 or more feet to be compliant with the Stream Crossing Rules. Seta Detzel (NHDES) mentioned that floodplain pipes could be used in combination with a smaller span to help with flood capacity. Since a span of 60+ feet would require raising the grade of the road and would have permanent impacts to wetlands and adjacent properties, the project will likely need to use a shorter span and apply for Alternative Design. Karl mentioned that the Alternative Design technical report will need to address the reasons why the project cannot meet full compliance with the Stream Crossing Rules. Karl also recommended completing the Stream Crossing Worksheet available on the NHDES website.

Federally-listed species within the project vicinity include northern long-eared bat and small whorled pogonia. No small whorled pogonia plants were observed during the field visit. No evidence of bats was observed during a survey of the bridge. State-listed species include American eel, Blanding's turtle, Northern black racer, and spotted turtle. The project is also within a brook floater zone. GM2 contacted Kim Tuttle (NHF&G) and Kim responded that no impacts to eels or brook floater mussels are expected. NHF&G recommended the following conditions for turtle and snake species:

- Cover road shoulder on south side of bridge with black silt fence fabric if work will begin after turtle nesting season (June 1st)
- Use wildlife-friendly erosion control matting
- Distribute turtle and snake flyers to contractors and include notes/photos on plans

Conservation land (an easement held by the Society for the Protection of NH Forests) is located on the west side of Route 152.

For cultural resource review, a bridge inventory was completed and it was determined to be Not Eligible for the Register of Historic Places. A Phase IA/IB archaeological survey was completed. No evidence of cultural features or deposits was found and no further survey is recommended. The report is being finalized and still needs to be submitted to DHR.

Sarah Large commented that permanent impacts to the emergent/scrub-shrub wetlands should be avoided. The goal should be to widen the bridge opening but also minimize permanent impacts. Jenn mentioned that the project will be presented at another Natural Resource Agency Meeting once impacts have been determined.

Mike Hicks (ACOE) asked if the US Coast Guard had commented on the project. Sarah responded that the USCG had not reviewed the meeting agenda yet.

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

Meeting.

Bethlehem, #26763 (X-A004(296))
The proposed project will address a culvert under Main Street (US Route 302) between Maple Street (NH Route 142) and Congress Road in Bethlehem. The stream through the structure is a tributary to Barrett Brook. The inlet is near the Bethlehem Visitor Center and Heritage Society building and the outlet is near the Maia Papaya and White Mountain Transmission shops.

Stephanie Micucci described that the culvert is made up of several different sections, is quite old and is deteriorating. She described that the culvert goes under a local business parking lot. S. Micucci also shared that there have been sink holes developing over the culvert and the connecting drainage lines on US 302 and in the Maia Papaya parking lot.

S. Micucci explained that the project has received a wetland permit, which does not expire until 2023. She described that the project had gone out to bid and a contractor was selected in the fall of 2018. She described the permitted scope of work. The permitted scope of work includes replacing the concrete retaining walls at the inlet in-kind, lining the culvert with plastic in one section and corrugated metal tunnel liner plate in another section. The permitted project had been to line 35 feet at the inlet with elliptical plastic pipe and line the remainder (145 feet) with corrugated metal tunnel liner plate. The space in between the existing pipe and the liner was planned to be filled with grout. The perch at the outlet would be eliminated by adding simulated streambed material to build up the area at the outlet. No excavation at the outlet was proposed to avoid impacting contaminated material in the vicinity. The permitted project would also repair the drainage under US Route 302 to help prevent future sink holes. The velocities in the pipe were expected to be similar to the existing condition under the permitted design. S. Micucci explained that adult brook trout would be expected to potentially be able to pass through the pipe under the permitted design. Construction was intended to be completed in the fall of 2019.

S. Micucci explained that District and Construction Bureau folks raised concerns during construction about reducing the effective culvert size with a liner. They were concerned because of observed high water levels at the inlet under the existing condition. Highway Design reviewed the hydraulic analysis, which validated District's concerns. After several discussions between the Bureaus of Highway Design, Bridge Design, Construction, Environment, Materials and Research, and District, a new scope of work was developed. S. Micucci explained that due to the size and scope of the advertised contract, the proposed new scope would only extend the life of the culvert and the vicinity under the advertised contract (Revision after Proposal), but is not anticipated to be a long term solution. It is understood that the crossing would likely still need to be improved/replaced in the future. Tobey Reynolds explained that its condition would be monitored regularly through the culvert inventory program and by District.

The current proposed scope is intended to mitigate the risk of a substantial failure and extend the life of the existing culvert, instead of waiting longer to design and build a longer term solution. A Revision After Proposal is intended for January of 2020 with construction in the spring of 2020. Under the new proposal only one of the concrete retaining walls would be replaced at the inlet, likely reducing the impacts, and the remainder of the project would have the same impacts. The west side concrete retaining wall is leaning, so this wall is proposed to be replaced with a precast modular block retaining wall. The project would also use shotcrete to fill in the voids in the box culvert (100') and shotcrete line the invert of the steel arch pipe. The shotcrete liner is a little rougher than a standard reinforced concrete pipe.

Mike Hicks inquired about the methods of construction. T. Reynolds explained that the liner is installed in the dry, so there will be a water diversion. S. Micucci explained that the velocity in the metal section of pipe is anticipated to be higher than the current velocity. The team is coordinating with John Magee of NH

BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: January 20, 2021
LOCATION OF CONFERENCE: Virtual meeting held via Zoom

ATTENDED BY:

NHDOT
Sarah Large
Matt Urban
Andrew O'Sullivan
Ron Crickard
Mark Hemmerlein
Arin Mills
Rebecca Martin
James McMahon
Ralph Sanders
Toney Weatherbee
Jason Tremblay
Chuck Corliss
Tim Boodey
Marc Laurin
Jennifer Reczek
Tobey Reynolds
Dan Prehemo
Gerry Bedard

ACOE
Mike Hicks

EPA
Beth Alafat
Jeanie Brochi

NHDES
Lori Sommer
Karl Benedict
Ann-Elizabeth Pelonzi

The Nature Conservancy
Pete Steckler

Consultants/ Public Participants
Jennifer Riordan
Tom Levins
Lee Carbonneau
Thomas Marshall
Gene McCarthy

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.)

Lori said the project is likely under the threshold for mitigation, and therefore will likely not be required. She mentioned, since this project involves a tier 1 crossing, if the project is a minimum impact project mitigation is not required; and even if the project classification is a minor, the impacts will likely be under the threshold for mitigation. Karl reiterated that the threshold for a minor impact project is less than 200 LF along the watercourse.

Amy Lamb mentioned via email she has no concerns. Mike Hicks, Jeanie Brochi and Pete Steckler all had no comments. Karl added one last comment specific to the draft impact plans shown at the meeting; the area between the pipe extensions would be considered permanent and will need to be adjusted on the plans.

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

Nottingham, #40612

Jenn Riordan (GM2) presented the project, which includes replacement of the NH Route 152 bridge over the North River in Nottingham. The project is state funded so the US Army Corps of Engineers (ACOE) is the lead federal agency, not FHWA. The project was previously presented at the November 2019 Natural Resource meeting. Since then, the design has progressed and wetland/stream impacts of the preferred alternative have been estimated.

The area adjacent to the bridge is mostly wetland. Powerlines are located to the north. A house and daycare are located southeast of the bridge and Nottingham Elementary School is located further south. A house is also located to the northeast.

The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span. It was constructed in 1925 and rebuilt in 1970. It has stone and concrete abutments and wingwalls and is currently on the State's Red List. The existing bridge does not convey the 100-year storm but there is no known history of flooding at the site.

The Preferred Alternative involves replacement of the bridge with a 30-foot span structure. Rehabilitation of the bridge is not a viable option since the substructure has deteriorated to a point where it can't be repaired. The existing hydraulic opening is also a concern. The entire bridge needs to be replaced. The project will also involve 200 feet of roadway widening on each side of the bridge. A second bridge replacement alternative that is being evaluated is a 66-foot span structure. This would be compliant with the NHDES Stream Crossing Rules, but would have more wetland impacts and would cost approximately 50% more than the 30-foot span.

There are several traffic control options. The Preferred Alternative would involve closing the bridge during construction and detouring traffic. The detour is about 20 miles on state roads and 12 miles on local roads. The bridge would be closed for 28 days. Construction would take one season. This traffic control option would have the least amount of impact to environmental resources and would only take one construction season. Another alternative would involve phased construction, which would maintain one lane of traffic in each direction. This would require additional widening of the proposed structure. Construction would take two seasons. The third traffic control alternative would involve construction of an offline temporary bridge that would allow the road to remain open during construction, but would result in additional wetland impacts. Construction with a temporary bridge would take two seasons.

Design of the project is ongoing. A Public Officials Meeting is scheduled for February 8, 2021. The advertisement date is currently in 2024.

The natural resources at the site include Priority Resource Area (PRA) wetlands on both sides of NH Route 152 and the North River. The North River is a Tier 3 crossing (watershed is 6,800 acres), a NH Designated River (as part of the Lamprey River watershed), and subject to the Shoreland Water Quality Protection Act. The site is located within a Zone A floodplain, but there is no floodway. It is assumed that water quality treatment will not be required since the ground disturbance will be well under 50,000 SF for AoT and the site is not within a MS4 regulated community. There are two public water supply wells located south of the site. A daycare well is located approximately 150 feet south of the southern project limit. The well for Nottingham Elementary School is located approximately 1,200 feet southeast of the project limit. These distances are based on the NHDES OneStop Mapper. GM2 needs to coordinate with the NHDES Drinking Water Bureau regarding any specific recommendations.

LCHIP conservation land is located along the west side of NH Route 152, outside of the NHDOT ROW. Several federal- and state-listed species were identified in the IPac and NHB reports. Federal species include northern long-eared bat and small whorled pogonia. No evidence of bats was observed in the bridge and no small whorled pogonia plants were found at the site. There is potential habitat for small whorled pogonia located further from the bridge in the forested upland areas. State-listed species include brook floater, American eel, Blanding's turtle, Northern black racer, and spotted turtle. NH Fish and Game was contacted regarding these species. They indicated that no impacts to eels or brook floater mussels are expected. They also recommended the following conditions for turtle and snake species: cover road shoulder on the south side of the bridge with silt fence fabric if work will begin after turtle nesting season begins; use wildlife-friendly erosion control matting; and distribute turtle and snake flyers to contractors and include notes/photos on project plans. The Nature Conservancy placed wildlife cameras at the site to obtain information on wildlife passage.

The stream crossing rules were discussed. Bankfull width (BFW) is approximately 30 feet and the North River is a Type E stream near the project. A 66-foot bridge span would be compliant with the NHDES Stream Crossing Rules (2.2 x BFW). The project will need to apply for Alternative Design since the Preferred Alternative is a 30-foot bridge span. A longer span would require raising the road and would increase permanent wetland impacts. The 66-foot span alternative would also cost over 50% more compared to the 30-foot span alternative.

Wetland impacts for the Preferred Alternative (30-foot span with bridge closure during construction) are estimated at 3,416 SF of wetland impact and 182 LF of stream impact. This includes 1,164 SF of permanent wetland/stream impact and 105 LF of permanent stream impact, as well as 2,252 SF of temporary wetland/stream impact and 77 LF of temporary stream impact. The Preferred Alternative has the least amount of wetland impact. The 66-foot span alternative would result in more wetland impact from roadway work. Phased construction would require additional bridge widening, resulting in more wetland impact. A temporary bridge during construction would result in additional temporary wetland impacts.

The wetland/stream impacts associated with the Preferred Alternative are associated with bridge replacement. The roadway approach widening will avoid wetlands. The Preferred Alternative appears to be self-mitigating since it will lengthen the bridge span from 17 to 30 feet and will improve hydraulic capacity (the proposed bridge will convey the 100-year flood while the existing bridge does not). The Preferred Alternative also includes the addition of a wildlife shelf under the bridge to improve wildlife passage in the project area.

The resource agencies then provided comments on the project.

Karl Benedict (NHDES)

- Agree with the approach to apply for Alternative Design
- The stream impacts seem to be self-mitigating due to the hydraulic improvements, although permanent impacts to PRA wetlands located above ordinary high water will need to be mitigated. Jenn Riordan confirmed that this would include approximately 236 SF of impact as currently shown for the Preferred Alternative.
- Asked if the amount of new impervious surface has been quantified. Tom Levins replied that the area has not been determined but it would likely be around a 10% increase. Karl mentioned the need to confirm if AoT requirements need to be met.

Lori Sommer (NHDES)

- Agreed that permanent PRA wetland impacts need to be mitigated. She commented that she would like to see the plans.
- Local conservation commission should be contacted, but since it is such a small amount of mitigation, an ARM fund payment would be appropriate in this case.
- Impacts to the LCHIP property on the west side of NH Route 152 should be discussed with Lori. Jenn Riordan commented that the LCHIP property is on the west side outside of the ROW and she doesn't believe there will be impacts.
- Agreed that the project is self-mitigating for the stream impacts. Since the wildlife shelf is part of the proposed mitigation, a post-construction report and follow-up monitoring would be needed.
- Do floodplain culverts need to be considered as part of the Alternative Design review? Karl responded that accommodating the 100-year flood event meets this requirement.

Pete Steckler (TNC)

- The project intersects the Connect the Coast planning effort. TNC placed two wildlife cameras at the site: one at the bridge and one southeast in the floodplain area. Currently, there is not much opportunity for wildlife crossing at the existing bridge, there is no dry area below the abutments, so no place for animals to walk. Not many animals were observed but there are a lot of people who fish near the bridge. The floodplain camera detected various species. A floodplain culvert may perform better for wildlife passage than a shelf under the bridge.
- Most larger animals would be expected to stick to the forested edge of the wetland area and not walk out in the more open area where they would be more exposed. However, smaller floodplain dependent species like raccoons and mink would be anticipated to potentially use a shelf.

Liz Pelonzi (NHDES)

- Liz suggested that GM2 reach out to her regarding the daycare well. Rebecca received an email from Liz which she will forward to Jenn Riordan. If this well is within 200 feet of the project, Level 4 protection measures are recommended.

Mike Hicks (ACOE)

- Is this a Section 106 No Adverse Effect? Jenn Riordan responded that the bridge was determined Not Eligible.

Jean Brochi (EPA)arol

- No comments

Amy Lamb was not in attendance but Sarah Large reported that she had no concerns, but that the NHB report was expired.

Wildlife passage was discussed further, particularly the use of the adjacent floodplain/forest habitat and the potential for floodplain culverts. Pete Steckler said that bear will pass through a 48-inch culvert. He recommended a 5-foot culvert, if the road profile allows for it. A wildlife shelf is still useful if the design doesn't allow for a floodplain/wildlife crossing culvert.

This project was previously discussed at the 11/20/2019 Monthly Natural Resource Agency Coordination Meeting.

Harts Location, #40595-2

Arin Mills, NHDOT Environmental Manager, presented the railroad bridge repair project which carries the Conway Scenic Railroad (CSRR), bridge #81.82, over Kedron Brook in Harts Location and within Crawford Notch State Park. The railroad line was described as an active line operated by CSRR as a lessee and provides tourist service in all seasons with the exception of winter. A figure showed the line runs from Conway to Luneburg, VT and the active line is only the Conway to Whitefield section. Arin further described the line is owned and maintained by the State of NH and was constructed in ~1886 with very limited plans of construction. The track is a Class II track with a max speed of 20 MPH and the DOT ROW is 49.5' wide from centerline.

Kedron Brook is a mountainous stream which flows from the steep terrain on Mt Willey, and flows ~0.5 miles from the site reach to the site. From the site Kedron Brook flows ~ 0.3 miles under US 302 and empties into the Saco River. Photos were shown of the existing conditions of the site from the fall of 2020, to include the slope failure on the NE wing of the crossing and slope material which has entered the stream. Project challenges were outlined to include; no roadway access (rail only), limitations of the rail access to include 2 large bridge structures which limit the ability of movement of equipment needed for the project to the site, excessive slope steepness, no existing staging area and limited staging areas at the Arethusa Falls parking lot (DNCR) within the NHDOT ROW of 49.5 ft.

A map showed the proposed (tentative) path where heavy equipment would create a temporary access route from US 302. This access request is in-process with the DNCR, who are receptive to the proposal. Photographs from a site visit conducted in the fall of 2020 showed the forested area and proposed staging area near the failure. Based on the site visit no wetlands were observed along this access route.

Chuck Corliss, NHDOT Operations Engineer, showed a project overview plan with the wetlands field data collected and existing topography of the site. He then showed the location of the proposed Class 5 rip rap would be placed at a 1.5:1 slope to repair and stabilize the failing slope. Chuck then described the proposed staging area required for staging of both material and equipment during construction. At this time the hope is to keep this within the existing DOT ROW (49.5' from centerline), although there is potential for additional clearing within the forest needed for staging. Chuck described a basic access plan to include the installation of erosion control measures, excavation of a ramp to the NE slope to allow movement of excavator and material to the base of the slope. The cofferdam and clean water bypass pipe will allow for clean water flow to be maintained throughout construction.

Chuck showed a preliminary wetland impact plan to include removal of existing material in the stream and placement of stone from the stream channel to the top of the bank to stabilize and repair the failure. Chuck described a basic construction sequence to include installation of erosion control measures, prepare staging area in NE corner, install coffer dam and bypass pipe, excavation of NE corner to the base of the failure, removal of excess material from Brook, installation of stone from Brook and up slope to match existing grade at rail. Once work is completed the staging area will be reseeded and erosion control measures will

Exhibit J
NH Floodplain Management Program
Correspondence

New Hampshire Department of
BUSINESS AND
ECONOMIC AFFAIRS

MEMORANDUM

TO: Ethan Maskiell, Environmental Scientist, GM2 Inc.
FROM: Katie Nelson, Principal Planner, Office of Planning and Development
State National Flood Insurance Program Assistant Coordinator
DATE: October 7, 2022
SUBJECT: NHDOT Project: Nottingham 40612

I am writing in reference to your September 27, 2022 email regarding the above-referenced project's impact on floodplain areas. I have reviewed the contents of your email, which include a project description and a USGS location map of the project area.

It appears that portions of the project area are in a special flood hazard area (SFHA) designated as Zone A on the Flood Insurance Rate Map (FIRM).

Since the State of New Hampshire is a participant of the National Flood Insurance Program (NFIP), any development occurring in a special flood hazard area should meet at least the minimum NFIP requirements contained in 44 CFR and the requirements in the flood provisions of the State Building Code. Development is defined under the NFIP as "any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

For development proposed in Zone A, best judgment should be used in determining if further study is necessary. If the proposed project will not present a new obstruction to flood flows or alter drainage, then additional coordination is likely not necessary.

If you need further assistance, please contact me at 603-271-1755 or at kathryn.o.nelson@livefree.nh.gov.

100 North Main Street, Suite 100
Concord, New Hampshire 03301
603.271.2341
visitnh.gov nheconomy.com choosenh.com

Exhibit K
NH Natural Heritage Bureau Correspondence

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

To: Ethan Maskiell, GM2 Associates, Inc.
197 Loudon Rd, Suite 310
Concord, NH 03281

From: NHB Review, NH Natural Heritage Bureau
Date: 10/7/2022 (valid until 10/07/2023)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Shoreland Standard Permit, NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: **NHB22-3131** Town: Nottingham Location: Bridge No.141/127 - NH Route 152 over the North River

Description: The project involves the replacement of the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham (NHDOT Project No. 40612). The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span. It will be replaced with a 30-foot span bridge. The project also involves 200 feet of roadway widening on each side of the bridge to transition the additional 3 feet on each side of the roadway at each bridge approach back to the existing roadway.

cc: NHFG Review

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB: NHB recommends a survey for Climing hempvine within the proposed project area. Please contact NHB for survey timeframes and habitat requirements of this species.**
F&G: Please refer to NHFG consultation requirements below.

Plant species	**State[1]**	**Federal**	**Notes**
climbing hempvine (*Mikania scandens*)	E	--	Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.

Vertebrate species	**State[1]**	**Federal**	**Notes**
American Eel (*Anguilla rostrata*)	SC	--	Contact the NH Fish & Game Dept (see below).
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (*Glyptemys insculpta*)	SC	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

For all animal reviews, refer to 'IMPORTANT: NHFG Consultation' section below.

Disclaimer: A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

IMPORTANT: NHFG Consultation

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to https://wildlife.state.nh.us/wildlife/environmental-review.html. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB Datacheck results letter number and "Fis 1004 consultation request" in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule)*, coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email: Kim Tuttle *kim.tuttle@wildlife.nh.gov* with a copy to NHFGreview@wildlife.nh.gov, and include the NHB Datacheck results letter number and "review request" in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Exhibit L
NH Fish and Game Department Correspondence

Jennifer Riordan

From: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Sent: Tuesday, April 25, 2023 1:43 PM
To: Martin, Rebecca; Jennifer Riordan
Cc: FGC: NHFG review; Winters, Melissa; Duclos, Kristin
Subject: [WARNING-EXT] NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham
Attachments: Spotted_Blandings Flyer_2022.pdf; Wood Turtle Flyer_2022 revision.pdf; racer flyer_ 2022.pdf

Good afternoon,

New Hampshire Fish and Game has completed review of materials submitted for consultation for NHB22-3131 (*site plans dated)* 01/2020) prepared by GM2 Associates, Inc. The proposed project is the replacement of the existing reinforced concrete jack-arch structure, 17-foot NH Route 152 Bridge (NHDOT Bridge No.141/127) with a 30-foot span bridge over North River located in Nottingham, NH. The proposed project also involves 200 feet of roadway widening on each side of the bridge approach.

NHFG agrees with the incorporation of conservation measures previously provided by NHFG through correspondence with Kim Tuttle in 2019. The replacement bridge, consisting of a 30' open span, should result in improved wildlife passage opportunities if the below recommendations are implemented.

Applications associated with this review:

- NHDES – Wetland Standard Dredge & Fill – Major (pending)
- NHDES – Shoreland Standard Permit (pending)

Based on the NHB datacheck results letter and the information provided in the submission, we request the following recommended permit conditions. THESE RECOMMENDED PERMIT CONDITIONS ARE APPLICABLE TO ALL STATE PERMITS LISTED ABOVE.

- **Please include recommended permit conditions in final plan sheets plans as written below (updated highlighted text as applicable) and provide to NHDES and cc NHFG for final review. Permit reviewers will adopt/include NHFG permit conditions in the permit if approved.**

New Hampshire Fish and Game – Recommended Permit Conditions

1. Blanding's Turtle (State endangered), Northern Black Racer (State threatened) and Spotted turtle (State threatened) occur within the vicinity of the project area. All operators and personnel working on or entering the site shall be made aware of the potential presence of these species and shall be provided flyers that help to identify these species, along with NHFG contact information.
2. Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during morning tailgate meetings prior to work commencement during the construction phase of the project. See Plan Sheet xxxxxx. Include attached flyers to plan sheet set.
3. Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th). All turtle species nests are protected by NH laws. If a nest is observed or suspected, operators shall contact Melissa Winters (603-479-1129) or Josh Megyesy (978-578-0802) at NHFG immediately for further consultation.
4. Black silt fence shall be anchored over the ground surface of exposed soils along the south side of the bridge prior to turtle nesting season to prevent turtles from laying eggs in the work zone.
5. The 30' replacement span bridge structure shall have an open bottom consisting of natural stream material. Stream bed material shall not include sharp, angular surfaces, such as rip-rap. If rip-rap must be used, it shall be covered with natural stream material to mimic upstream and downstream streambed conditions.

6. Dry wildlife passage shall be incorporated into the design considerations under the proposed bridge. Rip-rap or larges stones shall be used to construct a wildlife shelf.
7. Voids within rip-rap, such as under the bridge up to the abutments and within the wildlife shelf, shall be filled with finer material (i.e native material in between rip-rap) to create a relatively smooth surface for wildlife to traverse.
8. All manufactured erosion and sediment control products, with the exception of turf reinforcement mats, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, perimeter control, inlet protection, check dams, and sediment traps shall not contain plastic, or multifilament or monofilament polypropylene netting or mesh with an opening size of greater than 1/8 inches.
9. All observations of threatened or endangered species on the project site shall be reported immediately to the NHFG nongame and endangered wildlife environmental review program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov, with the email subject line containing the NHB DataCheck tool results letter assigned number, the project name, and the term Wildlife Species Observation.
10. Photographs of the observed species and nearby elements of habitat or areas of land disturbance shall be provided to NHFG in digital format at the above email address for verification, as feasible.
11. In the event a threatened or endangered species is observed on the project site during the term of the permit, the species shall not be disturbed, handled, or harmed in any way prior to consultation with NHFG and implementation of corrective actions recommended by NHFG.
    a. Site operators shall be allowed to relocate wildlife encountered if discovered within the active work zone if in direct harm from project activities. Wildlife shall be relocated in close proximity to the capture location but outside of the work zone and in the direction the individual was heading. NHFG shall be contacted immediately if this action occurs.
12. NHFG, including its employees and authorized agents, shall have access to the property during the term of the permit.

Additional Recommendations:

1. American Eel (State species of special concern) may occur within the vicinity of the project site. Site operators should be informed of the potential presences of this species.
2. Wood Turtle (State species of special concern) may occur within the vicinity of the project site. All operators and personnel working on or entering the site should be made aware of the potential presence of these species and should be provided flyers that help to identify these species, along with NHFG contact information. See Plan Sheet xxxxxx. Include attached flyers to plan sheet set.

NHFG has completed our review of materials submitted for consultation under FIS 1004. No further coordination with NHFG is requested, and the final recommendations have been transmitted to the applicable permitting agency. Questions or concerns on NHFG recommendations must follow FIS 1004.12. Note that NHFG recommendations may be withdrawn pursuant to FIS 1004.

Sincerely,

Kevin Newton
Wildlife Biologist
NH Fish and Game Department
Wildlife Division
11 Hazen Drive, Concord NH 03301
Phone: 603-271- 5860

New Hampshire Fish and Game requirements for environmental review consultation can be found at: https://gencourt.state.nh.us/rules/state_agencies/fis1000.html. ALL requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail. **The NHB datacheck results letter number needs to be included in the email subject line to read as "NHB*xx-xxxx_Project Name*_FIS 1004 Consultation Submittal".**

The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Review requests for these projects or other project types should be submitted to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail – email or mail subject line for these review requests should read **"NHBxx-xxxx_Project Name_ Env. Review Request".**

Please provide shapefiles/KMZ/KMLs of the project site (and relevant features if applicable) with your submittal. Review statements provided in the NHB Datacheck Results letter for additional guidance.

Exhibit M
US Fish and Wildlife Service Correspondence

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To:
Project Code: 2023-0022775
Project Name: Nottingham 40612

December 07, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the "**New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat Update - Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

Additional Info About Section 7 of the Act
Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/service/section-7-consultations

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the

ESA. The species' occurrence on an official species list does not convey a requirement to consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

https://www.fws.gov/program/migratory-bird-permit

https://www.fws.gov/library/collections/bald-and-golden-eagle-management

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Project Code: 2023-0022775
Project Name: Nottingham 40612
Project Type: Bridge - Replacement
Project Description: The project involves the replacement of Bridge No. 141/127 (NH Route 152 over the North River) in Nottingham. Work will include the replacement of the bridge and associated reconstruction of the approach roadways.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.14853432026456,-71.11323570828998,14z

Counties: Rockingham County, New Hampshire

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: GM2 Associates, Inc.
Name: Jennifer Riordan
Address: 197 Loudon Road, Suite 310
City: Concord
State: NH
Zip: 03301
Email jriordan@gm2inc.com
Phone: 6038567854

Exhibit N
US Fish and Wildlife Service NLEB No Effect Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To:
Project code: 2023-0022775
Project Name: Nottingham 40612
IPaC Record Locator: 452-124252141

March 28, 2023

Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Record of project representative's no effect determination for 'Nottingham 40612'

Dear Rebecca Martin:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 28, 2023, for 'Nottingham 40612' (here forward, Project). This project has been assigned Project Code 2023-0022775 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may

include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/ coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New England Ecological Services Field Office and reference Project Code 2023-0022775 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Nottingham 40612

2. Description

The following description was provided for the project 'Nottingham 40612':

> The project involves the replacement of Bridge No. 141/127 (NH Route 152 over the North River) in Nottingham. Work will include the replacement of the bridge and associated reconstruction of the approach roadways.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.14851866732026,-71.11323079850595,14z

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (Myotis septentrionalis). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. The proposed action does not intersect an area where the northern long-eared bat is likely to occur, based on the information available to U.S. Fish and Wildlife Service as of the most recent update of this key. If you have data that indicates that northern long-eared bats <u>are</u> likely to be present in the action area, answer "NO" and continue through the key.

   Do you want to make a no effect determination?

   Yes

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: New Hampshire Department of Transportation
Name: Rebecca Martin
Address: 7 Hazen Drive
City: Concord
State: NH
Zip: 03302
Email rebecca.a.martin@dot.nh.gov
Phone: 6032716781

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

Exhibit O
Summary of Contaminated Properties Review

Nottingham 40612
Bridge No. 141/127 - NH Route 152 over the North River

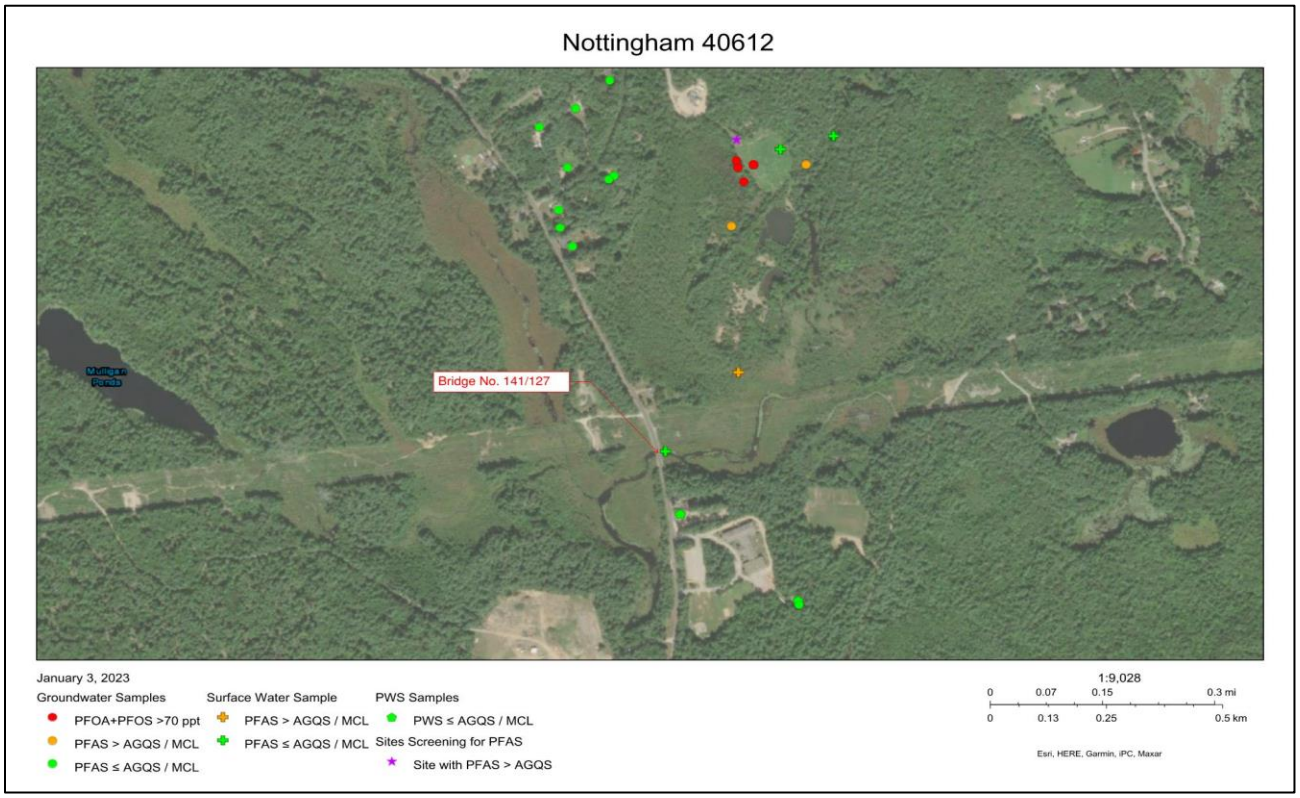
Contaminated Properties Review

NHDES PFAS Sampling Map

The NH Department of Environmental Services (NHDES) per- and polyfluoroalkyl substances (PFAS) online sampling map (below) was reviewed on January 3, 2023 to determine if any records of PFAS sampling are located within 4,000 feet of the project. One site (the Nottingham Municipal Solid Waste Facility) had PFAS detected above the ambient groundwater quality standards (AGQS) and is located approximately 2,500 feet northeast of the bridge. According to the NHDES OneStop Database, the Nottingham Municipal Solid Waste Facility is an unlined landfill that was closed in 2003. Groundwater sampling indicated that several wells at the landfill had PFAS detected above the AGQS.

A surface water sample result from 2020 that was taken south of the Nottingham Municipal Solid Waste Facility and approximately 800 feet northeast of the bridge had PFAS detected above the AGQS. Another surface water sample taken from the North River at the bridge in 2020 did not have any PFAS detected in the sample.

Several residential wells located west of the landfill, along Freeman Hall Road, were sampled in 2018 and 2019 and did not have PFAS compounds above detection limits. Another well sampled near the Nottingham Community School (approximately 1,500 feet southeast of the bridge) was found to have PFAS levels below the AGQS. Also, the All Aboard Preschool and Childcare (approximately 475 southeast of the bridge) was found to have PFAS levels below the AGQS.



NHDES OneStop Database

The NHDES OneStop Database was reviewed on January 3, 2023 to determine if there are any remediation sites, hazardous waste generators, solid waste facilities, underground storage tanks, aboveground storage tanks, automobile salvage yards, or asbestos disposal sites within 1,000 feet of the project area.

Three remediation sites and one aboveground storge tank site are mapped within 1,000 feet of the project area (refer to attached map). The following provides a summary of these sites:

- Site #200903047 – Roadside, 245 Stage Road, Nottingham
    - Initial Response Spill
    - On March 14, 2009, 10 to 15 gallons of gasoline spilled from a punctured fuel tank.
    - The DES file is closed.

- Site #200608036 – All Aboard Preschool, 249 Stage Road, Nottingham
    - Public Water System approved in 2006 (PWS ID 1805060)
    - Underground Injection Control – Registered in 2006 for disposal of water treatment backwash water.

- Site #199412079 – Nottingham Community School
    - Public Water System (PWS ID 1805050). Compliance reporting began in 1996.
    - Underground Injection Control – Registered in 2008.

- Site #199710021 – Fernald Lumber, Inc., 240 Stage Road, Nottingham
    - Hazardous Waste Generator (EPA ID #NHD500002746) – Inactive
    - Aboveground Storage Tank (AST) Facility
        - 13 ASTs currently in use (#2 heating oil, diesel, gasoline, and motor oil)
    - Underground Storage Tank (UST) Facility
        - 2 USTs closed in 1990 and 1992

The sites listed above do not appear to present any potential contamination issues since they have either been closed by NHDES or have not had any known spills or leaks.

As indicated on the previous page, one landfill, the Nottingham Municipal Solid Waste Facility, is located within 4,000 feet of the bridge (NHDES site number is 199001014). The landfill is part of a groundwater management zone (GWP-199001014-N-004) and is sampled annually at three groundwater monitoring wells and one surface water location. According to the NHDES OneStop Database, groundwater sampling was last conducted in April 2022.

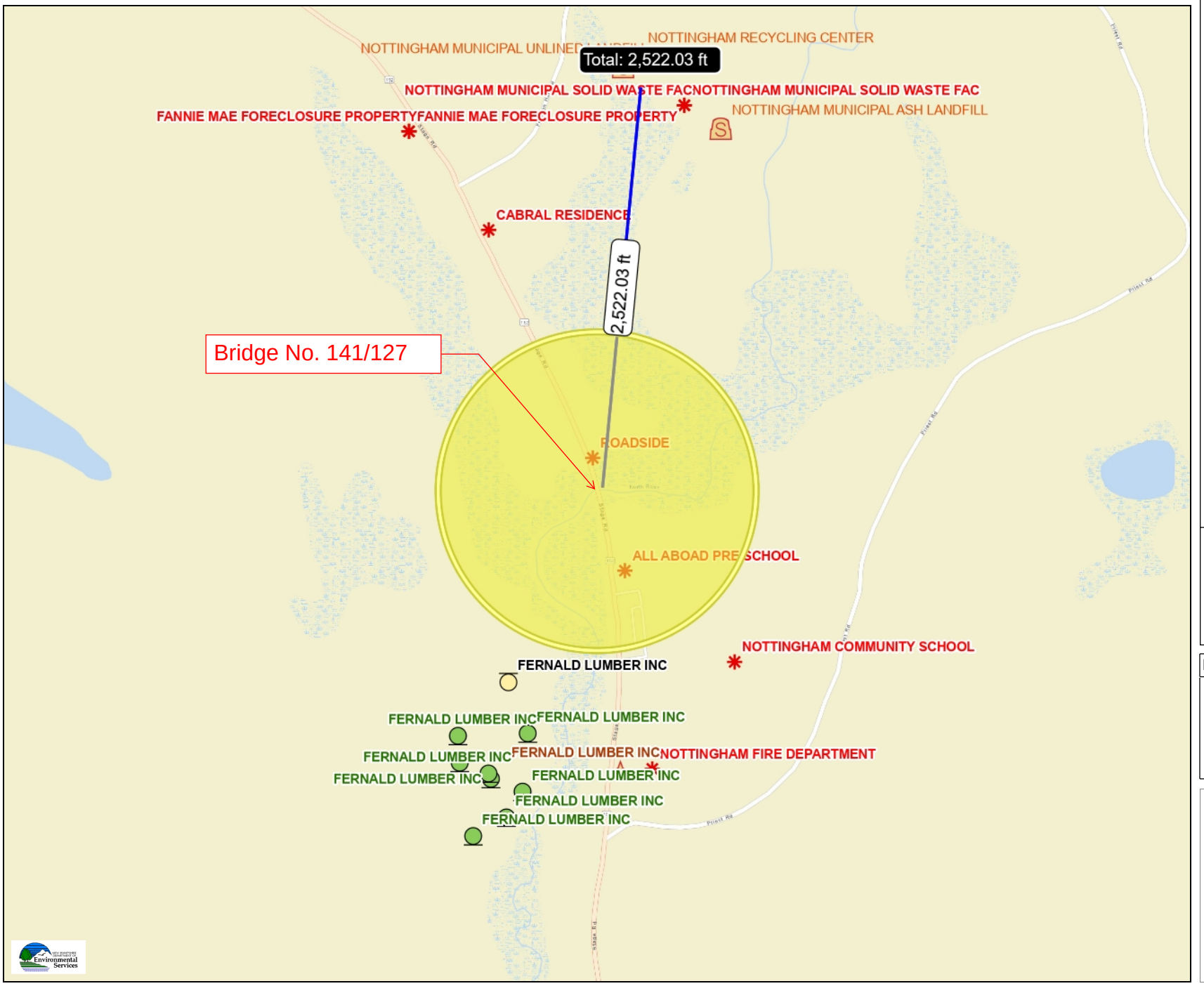
During the April 2022 sampling, concentrations of PFAS exceeded the AGQS at all three monitoring wells. PFAS was also detected in in the surface water sample at similar concentrations, although there are currently no standards for PFAS in surface water. Arsenic also exceeded the AGQS at two wells and manganese exceeded the AGQS at three wells. Both arsenic and manganese were also detected in the surface water sample. Methyl tert-butyl ether (MtBE) was detected at two of the wells during previous sampling years and 1,4-dioxane has been detected at two of the wells and the surface water location.

The bridge is located approximately 2,500 feet downgradient of the landfill. Residential wells located approximately 1,000 feet west of the landfill did not have any PFAS compounds detected during the sampling conducted in 2018 and 2019. In addition, a surface water sample taken from the North River at the bridge in 2020 did not have any PFAS detected in the sample. Future sampling results from the landfill should be reviewed prior to construction to make sure that site conditions have not changed.

The database review was supplemented by a site visit to the project area. No evidence of potential contamination sources was observed within the vicinity of the bridge. In addition, no monitoring wells were observed within the project limits.

Based on correspondence with the NHDOT Bureau of Bridge Design, it is assumed that the bridge girders contain lead paint. Since the bridge was constructed in 1925, it is assumed that asbestos is not present on the bridge structure, however the Bureau of Bridge Design did not have a record of the bridge being paved, so the pavement and bridge membrane will need to be tested for asbestos.

Nottingham 40612



Legend

- Aboveground Storage Tank
- Air Facility Systems
- Asbestos Disposal Sites
- Automobile Salvage Yards
- Hazardous Waste Generato
- Local Potential Contaminatic Sources
- NPDES Outfalls
- Remediation Sites
- Solid Waste Facilities
- Underground Storage Tank
- Dam Inventory

Map Scale

1: 10,000

Map Generated: 1/3/2023

Notes

Exhibit P
Lamprey River Advisory Committee
Correspondence

Jennifer Riordan

From: Suzanne Petersen <spetersen.lrac@comcast.net>
Sent: Wednesday, September 25, 2019 12:10 AM
To: Jennifer Riordan
Subject: Route 152 bridge replacement

Dear Ms. Riordan,

We received your letter indicating that a bridge on Route 125 in Nottingham is in need of replacement and asking for our input prior to the development of specific engineering plans. We thank you for this notification and the opportunity to participate proactively in the planning process. We note from the map that the area is rich in wetlands and that sand pits are nearby; however, without details, we have no specific concerns at this time.

Thank you,

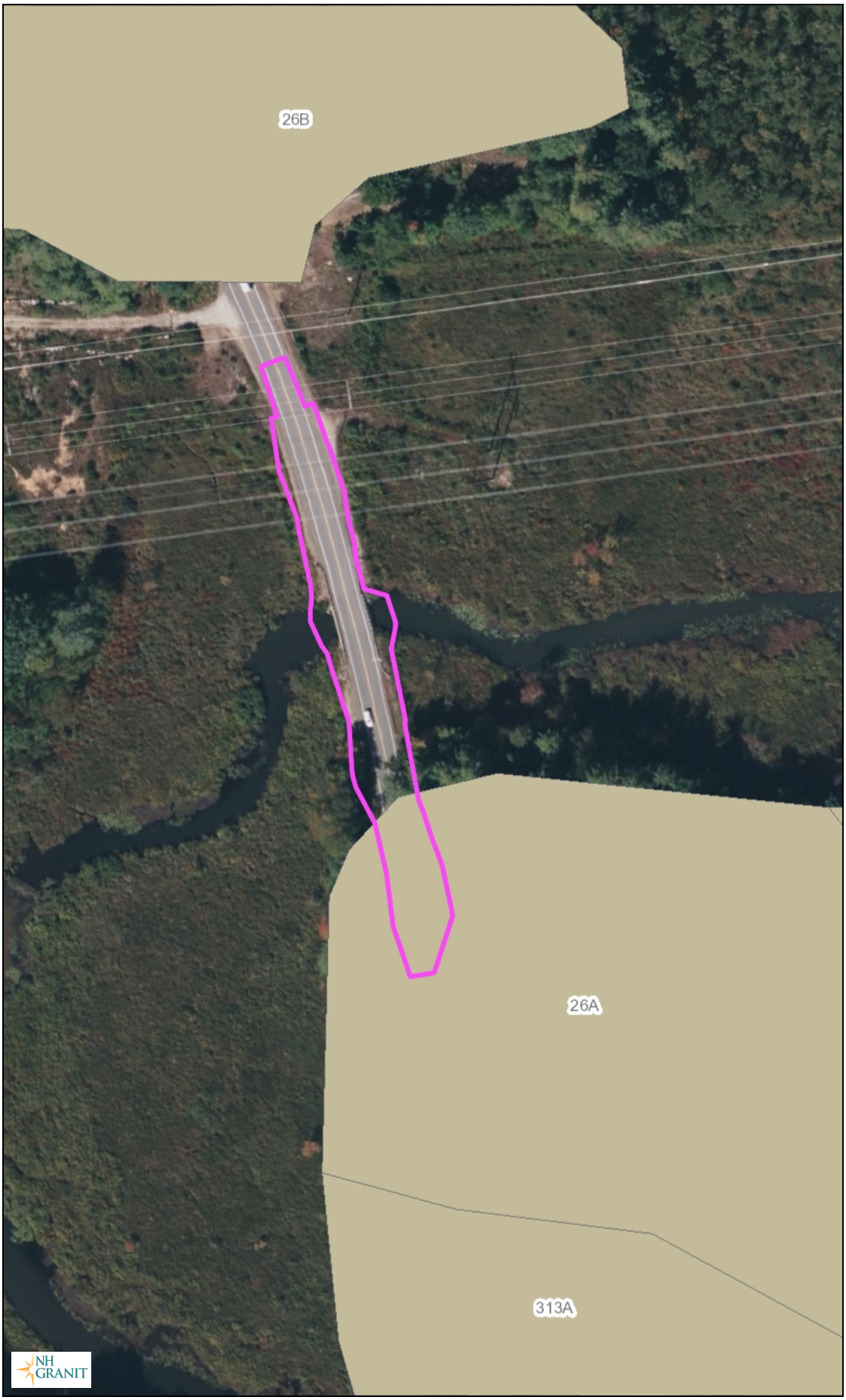
Suzanne Petersen

Lamprey River Advisory Committee

outreach specialist

Exhibit Q
Farmland Soils Map

Nottingham 40612 - Farmland Soils



Legend

- State
- County
- City/Town

Farmland Soils

- <all other values>
- Conditional Prime Farmland
- All areas are prime farmland
- Farmland of local importance
- Farmland of statewide importance

Map Scale

1: 1,624

Map Generated: 12/12/2022

Notes

Exhibit R
Photographs

View northwest of Bridge No. 141/127 (NH Route 152 over North River)

View south of Bridge No. 141/127

View north along NH Route 152 toward bridge

View north along NH Route 152 toward project area

View south along NH Route 152 toward project area

View southeast along NH Route 152 toward bridge