

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: September 16, 2009

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Bob Aubrey
Chris Carucci
Christine Perron
Don Lyford
Keith Cota
Kevin Nyhan
Marc Laurin
Matt Urban
Michelle Marshall
Mike Hazlett
Randy Talon

Army Corps of Engineers

Rich Roach

NHDES

Gino Infascelli
Laura Weit
Lori Sommer

NH Fish and Game

Carol Henderson

**NH Natural Heritage
Bureau**

Melissa Coppola

City of Keene

Jim Donison

**Southern NH Planning
Commission**

Tim White

Franklin Pierce Law

David Crosland
Ryan Nardontolia

**Tidewater
Environmental Planning**

Jamie Paine

Pathways Consulting

Scott Williams

(When viewing these minutes online, click on an attendee to send an e-mail)

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:

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NOTES ON CONFERENCE:

Finalization of August 19, 2009 Meeting Minutes

The August 19, 2009 meeting minutes were finalized.

Danville, X-A000(916), 13535

Jamie Paine of Tidewater Environmental Planning, LLC presented this project, which is part of a State and Federally-funded project, made possible by funds available by the American Recovery and Reinvestment Act of 2009 (ARRA). This project would replace the Sandown Road Bridge/culvert over the Exeter River. The existing structure, built in 1953, is a corrugated metal culvert (State Bridge No. 047/126) with dry-laid stone headwalls that has rusted out. The span of the existing two-lane bridge is 8 ft and provides an approximate paved roadway width of 19 ft.

The existing roadway is built over a causeway between two large wetland areas. There is currently a problem with roadway flooding on a regular basis. The bridge, transition, and end approach rails are all substandard. The overall condition of the existing bridge warrants complete replacement of the structure at this time. Due to the unsafe conditions, Sandown Road at this location has been closed to all traffic, including all safety and emergency vehicles.

Laura Weit explained that NHDES has completed a geomorphic assessment of the Exeter River, indicating problem locations or constrictions on the length of the river. This crossing location was identified as a constriction on the river.

In addition, approximately 20 ft downstream from the existing culvert crossing is a former rail line converted to a rails-to-trail by the NH Department of Resources and Economic Development (DRED). The trail contains a small bridge crossing over the Exeter River.

The proposed design for the project will allow for two 10-ft travel lanes with a 2-ft paved shoulder and guardrail, providing a 24 ft road width between bridge rails. The overall bridge width will be 27 ft. The pre-cast concrete box culvert and pre-cast concrete flared wingwalls design were selected to limit property impacts and to keep the length of road closure to a minimum.

Rich Roach asked what design storm the bridge would accommodate. J. Paine indicated that the bridge would accommodate the 50-year storm. *Following the meeting, however, it was determined that the project would pass the 100-year flood event. This information was relayed to R. Roach, Lori Sommer, Gino Infascelli (phone voice mail) and Jamie Sikora. All parties reached were satisfied with this information.*

In addition, the road will be raised in some areas up to 3 ft to minimize flooding. This work would provide 1.5:1 stone slopes on the sides of the road to minimize impacts and keep the project within the Town's right-of-way.

As the road is currently closed, no temporary bridge would be used during construction, reducing construction-related wetland impacts. Wetland impacts are estimated at this time to be approximately 3,100 sq ft of permanent impacts and approximately 1,800 sq ft temporary impacts.

The Exeter River is designated pursuant to RSA 483. As such, coordination letters have been sent to the NHDES Rivers Management and Protection Program and the Exeter River Local Advisory Committee. No replies have been received to-date.

Rich Roach stated that he would like to see a longer-span bridge at this location, removing portions of the existing roadway-related fill/causeway, specifically to alleviate flood concerns. He stated, after discussion, that the project would qualify for the NH Programmatic General Permit, if FHWA approves the project. J. Paine indicated that the proposed structure has been sized to improve the river crossing. Removing roadway material would be outside the scope of the project and beyond the financial constraints of the Town of Danville. In addition, the former rail line located just downstream from the project area, serves as a second causeway. Removing portions of the existing roadway fill would do little to open the flow of the river at this location, as it would still be contained by the footprint of the adjacent rail-trail.

Gino Infascelli asked whether a permanent diversion pipe (not just a temporary construction diversion) could be left in place under the road to alleviate flooding concerns. J. Paine responded that it is preferred to keep the water diversion structures temporary for the following reasons:

- Permanent structures will result in an increase in project cost.
- Long-term maintenance would be an issue. Based on the topography of the wetland and the proposed roadway elevation, the largest pipe(s) that could be used would be roughly 36" in diameter. These additional pipes would have the potential to get blocked easily.
- 36" diameter pipes do not provide much additional capacity and since the project already accommodates the 100-year storm no additional capacity is needed.

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

Capital Rail Corridor (No Numbers)

Bill Grace of TranSystems introduced this project. The New Hampshire Rail Transit Authority (NHRTA) is considering improvements within the New Hampshire Capital Corridor, from the Massachusetts State line, north to Concord, via Nashua and Manchester (The entire project extends southward to Boston's North Station). These improvements would reintroduce passenger rail service along the NH sections of the corridor. The NHRTA's primary mission is to oversee the development of passenger rail service in New Hampshire, along with the support of NHDOT. The NHRTA is currently seeking financial assistance in the form of grants from the Federal Railroad Administration (FRA), through the American Recovery and Reinvestment Act of 2009 (ARRA) to continue the development of this project. The application for these grants requires a preliminary review of potential environmental issues and concerns.

This entire corridor from Boston to Concord was once a high-speed double track rail operation. Commuter rail service currently extends from Boston to Lowell, and freight service has continued relatively uninterrupted to Concord and beyond. Passenger rail service from Lowell to Concord has not been in existence since 1965.

The proposed project will reinstall sixteen miles of second track along the existing grade of the former second tracks, and will replace sections of existing track with high-speed rail. Existing switches will be replaced with new ones to safely handle train movements at higher speeds, and all of the highway grade crossings will be reconstructed. The signal system will also be replaced with one capable of handling safe passenger train operations at speeds up to 79 mph. Passenger boarding will be through the use of temporary, low level boarding platforms at sites in or near Nashua, Manchester and Concord. Further details on potential stations at these locations, possible parking facilities and appropriate roadway access will be advanced as the project develops. Where applicable, the proposed station locations will be tied to other transportation modes, including the bus station in Concord and the Airport Access Road in Manchester.

NHDOT is preparing a Categorical Exclusion (CE) document for FRA using GIS level analysis of environmental resources. There are two crossings of the Merrimack River, one in Hooksett Village and one in South Manchester/Bedford. Both of these bridges appear to be in good condition and should not require any rehabilitation. The NH Division of Historical Resources (NHDHR) has reviewed the project and, based on similar projects in New Hampshire and neighboring states including the Amtrak Downeaster line, thought that the rail corridor could be considered as a linear historic district because of its significant role in the historic development of the State and the region. However, NHDHR felt that the proposed project would ultimately provide environmental benefits and would continue the historic use of the railroad for both freight and passenger service.

Matt Urban provided several maps, which depict the current environmental landscape surrounding the corridor in NH. There are prime wetlands located in Hooksett and Nashua. NH Designated Rivers include the Merrimack, the Piscataquog, and the Souhegan. No impacts are anticipated, although there will be some work within the 100-foot prime wetland buffer, and coordination with the appropriate local advisory committees will likely be required. The CE document will summarize those tasks that will need to be completed and will also reference similar projects in NH. Fieldwork will need to be coordinated with the railroad operator, since the railroad is an active freight line.

Rich Roach asked about the tentative schedule of the project. Assuming the grant is approved expeditiously; the proposed schedule will involve the completion of engineering, planning (including public meetings) and more detailed environmental studies in 2010, with construction beginning in 2011. R. Roach asked what the classification of the project is anticipated to be. Based on previous similar projects, B. Grace indicated he thought it might be an Environmental Assessment (EA). R. Roach also suggested that the information presented in this meeting be sent to the US EPA.

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

Keene, X-A000(586), 14891

Scott Williams, of Pathways Consulting LLC, presented the North Bridge Multi Use Pedestrian Bridge project in Keene, NH. Jim Donison, City Engineer, was also present on behalf of the City of Keene. Scott provided handouts containing a project narrative, site photographs, existing conditions plan, and renderings and concept plan/profile sheets for three preliminary bridge designs for reference during the presentation.

The project is municipally managed by the City of Keene and will follow the Transportation Enhancement program. The project has obtained a total of \$1,263,000 in funding from several sources including \$571,000 Federal funds, \$642,000 from the City of Keene and a \$50,000 donation from *Pathways for Keene*, a local trail advocacy group. The project involves a pedestrian bridge spanning NH Routes 9/10/12 to connect the Cheshire North Rail Trail to the Downtown Cheshire Trail. The project is needed in order to provide a safe crossing over Routes 9/10/12 where no crossing facilities currently exists. There is a trail connection immediately east of Routes 9/10/12 that extends north to West Street and reconnects to the Cheshire Rail Trail at Pitcher Street to the west of the project area, but many trail users cross directly over Routes 9/10/12 instead of using this connection.

The project area is approximately 1,200 feet long by 83 feet wide and consists of three parcels separately owned by the State of New Hampshire, City of Keene, and Heyman Properties, a private developer, who also owns the adjacent commercial plaza parcels. The Routes 9/10/12 right-of-way is approximately 300 feet wide and lies in the middle of the project area. The City of Keene currently holds an easement on this private property that allows a 12-foot wide paved trail with 6.5 feet on each side for trail maintenance. The rail trail is located in the middle of the level 25-foot wide former railroad embankment with 2:1 side slopes ranging from 3 feet to 6 feet above adjacent grades. The western portion of the trail consists of a 6-foot wide dirt and gravel path and the western portion is a 12-foot wide paved path with a connection extending north to West Street. An existing drainage channel lies along the north side of the trail embankment and jurisdictional wetlands, including palustrine scrub-shrub (PSS) and emergent persistent (PEM1) wetlands, have been delineated on the north and south sides. The soils consist of silt loams and loamy sands with a 3-5 foot thick surface layer of sandy fills typical of a railroad embankment. The project area was formerly part of a large open floodplain, portions of which were previously mapped by FEMA as "Zone AE," but recent development and channelization within the area resulted in a LOMR being filed in 2008 mapping the entire project area as "Zone X," or a 500-year floodplain. A recent NH Natural heritage Bureau report was received indicating known occurrences of the dwarf wedgemussel, a Federally listed Endangered Species, as well as the wood turtle and eastern cottontail, species of concern in NH. S. Williams has been in contact with NH Fish and Game Department (NHF&G) and received comments from Kim Tuttle indicating that the dwarf wedgemussel was only present in the Ashuelot River and will not be impacted. Correspondence should continue with NHF&G to determine whether impacts are possible to the wood turtle and eastern cottontail.

Melissa Coppola asked if the existing wetlands in the vicinity of the project were part of the mitigation approach constructed for the Home Depot project. Jim Donison stated that these

wetlands were not part of the mitigation approach which is located a considerable distance from the project area.

S. Williams described the three bridge designs currently being considered: the three-span truss bridge utilizes three 200-foot spans and is estimated at \$1.25 million; the single-span combination arch/truss/suspension structure consists of a 320-foot span extending outside the Route 9/10/12 right-of-way and is estimated at \$1.9 million; and the three-span slant-leg “grasshopper” bridge utilizes a 140-foot center span with two 30-foot approach spans, similar to designs being implemented by NHDOT on NH Route 101 and 12, and is estimated at \$1.25 million. Each bridge design is 14 feet wide, provides for 17.5-foot clearance (per AASHTO guidelines) at the edge of pavement and a 10-foot to 12-foot wide walking surface, and utilizes vertical retaining walls for the abutments and ramp systems, and extends at 5% from the bridge deck down to the trail surface. Jim Donison mentioned that the City recommends the three-span truss bridge design because of its openness, cost and traditional look.

Scott Williams briefly described the potential project impacts. Although the impacts vary slightly with each bridge design and have not been specifically defined yet, they will include piles for bridge support and shallow foundations of less than 5 feet for the bridge piers, abutments, and ramp systems. Other impacts may include trail resurfacing, minor drainage and utility modifications, and a bypass trail to the south and parallel to the bridge structure that may necessitate minor wetland impacts of less than 3,000 square feet. No impacts are expected to the existing drainage channel north of the trail.

Rich Roach indicated that this project would qualify for a State Program General Permit (SPGP).

The project has also been reviewed at the Cultural Resource Agency Coordination Meeting on September 10, and the committee felt that the project would provide a valuable trail connection where the former railroad corridor once existed. The committee also determined that there were no concerns for impacts to archaeological resources, and the project would have a de minimis impact on historical resources.

Carol Henderson asked for further clarification on the impacts of abutment location for each bridge design. S. Williams and J. Donison further explained that the three-span bridge has a total span length of 600 feet between abutments, while the other designs have a total span of 320 feet and 200 feet, respectively. Carol commented that the wider span would allow for more movement of wildlife beneath the bridge.

Gino Infascelli asked how far beyond the project area the wetlands had been delineated. S. Williams explained that the wetlands had only been delineated to the edge of the subject properties within the project area, but the wetlands do extend beyond the project limits in some cases. S. Williams referred to the site photographs that indicate wetlands to the southwest of the Routes 9/10/12 right-of-way extending further south along the toe of the roadway slope. G. Infascelli recommended that the wetland delineation be extended prior to filing for a wetland permit. S. Williams concurred with this recommendation and commented that this will need to be done to design the trail connection to the south used by snowmobiles, and to determine the wetland impact areas.

Carol Henderson mentioned that additional review is necessary with US Fish & Wildlife Service to obtain an official determination on potential impacts to the dwarf wedgemussel, since it is a Federally Listed Species.

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

Hooksett, X-A000(407), 12537A

Mike Hazlett presented this project, which has been reviewed twice before. Work involves upgrades to US Route 3 in the vicinity of the intersection of NH Route 28 Bypass. M. Hazlett indicated that the Department has been asked to extend the project along US Route 3 to a point approximately 700 feet south of the intersection of Whitehall Road. The work will consist of extending the five-lane section and associated roadway improvements.

Drainage improvements discussed included the installation of a RCP box culvert under the entrance to K-Mart from NH Route 28 bypass. This will be done in conjunction with the work proposed and already permitted by RK Associates (K-Mart). Their work includes the installation of a 5'x8' box culvert into their expanded detention pond. The Department will be constructing a RC box culvert approximately 200 feet long under NH Bypass 28 and an outlet channel to the RK Associates box culvert. The Department will install a 4'x10' box culvert that extends approximately 800 ft. from the inlet channel of the new bridge on Benton Road, under and the Merchants Motors parking lot and US Route 3, behind the Merchant Motors properties on the east side of US Route 3 and back into Dalton Brook at the stormwater pond at the K-mart plaza. The pond itself will be reconfigured as well.

The extension of the project to Martins Ferry Road includes widening and turning lane improvements. M. Hazlett stated that the Department does not intend to have any property impacts that cannot be handled by negotiating with the property owners, as the Department has no condemnation rights within the extension area. The SHPO has signed off on the extended portion of the project.

M. Hazlett discussed the concerns with how to address the drainage on this extended portion of the project. He described the oil/grit separators that PSNH is currently using and how the Department is attempting to minimize the amount of US Route 3 runoff that would contribute to that system so as to avoid any issues associated with that property. This requires that the Department extend the highway drainage system and outlet it prior to the prime wetland and prime wetland buffer off of the Bonneville and Sons Parking Lot on the west side of the road. Pavement is proposed to be removed within the Bonneville and Sons parking lot in order to construct the new outlet. A very minimal amount of treatment will be possible at the new outlet due to the topography and the proximity of the prime wetland and the prime wetland boundary.

M. Hazlett also described how the project would have no net increase in impervious areas upon completion of the project. This would be accomplished by eliminating pavement at the drainage outlet at the south end of the project area, and incorporating the use of pervious surfaces at parking areas in the vicinity of Merchant's Motors.

The Department knows of several locations that contaminated materials (petroleum based) are expected to be encountered and will take the appropriate measures to deal with the material.

Melissa Coppola would like the Department to redo the Natural Heritage Bureau review.

It was noted that RK Associates may begin some work in the near future in association with their drainage pond and the outlet to their proposed box culvert. Permits have been obtained by RK Associates. It was discussed that the work being done at the pond by RK Associates and the Department's work would not be considered in the aggregate.

To construct the box culvert improvements in the next construction season, the Department is pursuing splitting the project into two projects, the first being the box culvert work, which has more limited ROW and utility involvement, and would give the most timely relief to the recurrent flooding issue. The second being the highway improvements, with substantially more engineering, coordination, and negotiations required.

This project was previously reviewed on the following dates: [7/18/2007](#), [1/16/2008](#), [10/15/2008](#), & [1/21/2009](#).

Rochester, NHS-027-1(36), 10620D

Kevin Nyhan stated that the review was to recap our field review in Rochester of the previous week, and discuss mitigation. The Department has been considering the mitigation and feels that there were three alternatives. K. Nyhan sought the agencies input on the following:

1. Mitigating the entire overage at Henderson Site. This amounts to approximately 8 acres of creation at Henderson, with approximately 40 acres of preservation. The Department is working on a map of protected land around the Henderson site, as requested last Friday.
2. Constructing 4 acres of creation at the Henderson Site, and providing a payment for 2-4 acres into the Aquatic Resources Mitigation (ARM) fund, with the same 40 acres of preservation. This was discussed at the field review.
3. Preserving the approximately 40 acres at the Henderson Site, and making a payment into the ARM fund for the entire 8 acres. This is a modified, new proposal.

All three options include the already constructed 7 acres of creation at the City Concrete Site, and the preservation of that parcel, through the City, as they develop their drinking water well.

After the discussion, both the Corps and Wetlands Bureau felt that the third alternative: preserving the approximately 40 acres at the Henderson Site, and making a payment into the ARM fund for the entire 8 acres, was an appropriate approach and provided their tentative support. This amounts to approximately \$1.25M to DES and that fund. That watershed account will be going out to bid next year, so the timing according to Lori, is right.

L. Sommer asked K. Nyhan to provide Mark Kern with the discussion items for his consideration.

Following the meeting, Mark Kern provided the following text in an email:

“I agree with Lori and others on the preferred approach. However, I would recommend to the Corps that the ILF payment be for 10 acres rather than 8 acres. If the Corps does not agree with my thoughts of adding two more acres, I will not push this issue any further.

Choice 3 appears to be the best way to go for me as well. The town gets their drinking water area protected (both sites appears mostly protected via existing regs. and the City already owns the Henderson site), we don't have to worry about the effect of the pumping on the wetland creation areas, NHDOT doesn't have to spend large amounts of \$\$ moving earth, and hopefully we will get some really good sites via the ILF process.”

The revised mitigation would need to mitigate our entire six construction contracts, and our Front Office would still need to weigh in on the agencies' preferred approach.

This project was previously reviewed on the following dates: 10/20/1999, 1/17/2001, 7/17/2002, 12/17/2003, 11/17/2004, [5/21/2008](#), [8/20/2008](#); [2/18/2009](#); [3/18/2009](#), [5/20/2009](#), & [7/15/2009](#).