

# BUREAU OF ENVIRONMENT CONFERENCE REPORT

**SUBJECT:** NHDOT Monthly Natural Resource Agency Coordination Meeting  
**DATE OF CONFERENCE:** April 15, 2009  
**LOCATION OF CONFERENCE:** John O. Morton Building  
**ATTENDED BY:**

**NHDOT**

Alex Vogt  
 Bob Davis  
 Cathy Goodmen  
 Charlie Blackman  
 Chris Carucci  
 Chris Waszczuk  
 Christine Perron  
 Chuck Schmidt  
 Corey Spetelunas  
 Harvey Goodwin  
 John Butler  
 John Corcoran  
 Kevin Nyhan  
 Lucas Siik  
 Marc Laurin  
 Mike Dugas  
 Pete Stamnas  
 Wayne Clifford

**Federal Highway  
Administration**  
 Jamie Sikora

**Army Corps of Engineers**  
 Rich Roach

**US Fish and Wildlife  
Service**  
 Vernon Lang

**NH DOJ**  
 Lyn Cusack

**NHDES**  
 Gino Infascelli  
 Lori Sommer  
 Deborah Loiselle

**NH Fish and Game**  
 Carol Henderson

**NH Office of Energy and  
Planning**  
 Jennifer Gilbert

**NH Natural Heritage  
Bureau**  
 Melissa Coppola

**City of Manchester**  
 David Winslow

**Hoyle, Tanner & Assoc.**

Jason Lodge  
 Matthew Low  
 Sean James  
 Stephen Haas  
 Ted Setas

**HNTB**

Bob Driscoll

**Stantec**

Andre Betit  
 Jerry Fortin  
 Mike Leach  
 Rene LaBranche

**Public Participants**

Daniel Giovagnoli  
 Elaine Dolbec  
 Jeanne Duffy  
 Kevin Duffy  
 Rick Dolbec

*(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:

### **Salem-Manchester, IM-IR-93-1(174)0, 10418C**

A conservation easement was proposed to be placed on the Site 44 mitigation parcel in Manchester (as identified in the FEIS). This easement would provide a continuation of the wildlife corridor established in the Crystal Lake area. The Giovagnoli family, owners of Site 44, has expressed concerns with this proposal and has asked the Department to substitute this parcel for an alternate parcel that they own in the vicinity (designated as Site 44 Alt.). Marc Laurin handed out a package with aerial photographs and tax map information showing the parcels in question and their relationship to the wildlife corridor. This substitution was presented for discussion.

Rich Roach explained the purpose of and how the mitigation plan for the area was developed during the EIS process. A component of the mitigation was to provide a wildlife corridor from large undeveloped uplands in the area, to the Cohas Brook swamp. This would be accomplished through the protection of these natural areas. M. Laurin stated that Site 44 was identified as a needed link in this wildlife corridor by providing a buffer along Mosquito Brook, the outlet of Crystal Lake. Site 44 Alt. is somewhat removed from the corridor and would not provide this wildlife corridor component as identified in the mitigation plan.

Rick Dolbec expressed the Giovagnoli family's concerns with the use of Site 44. They were unaware of the proposal to place easements on Site 44 as presented in the Public Hearing and feel that the family has only recently been made aware. Pete Stamnas stated that a Notice of the Hearing was sent to the late John Giovagnoli by certified mail. Jeanne Duffy thought that it may have been unclaimed, or was not acted on by her father due to his untimely death. Subsequent to the meeting it was confirmed that notices were sent to both John A Giovagnoli and Laurette S Giovagnoli. Both notices were returned to the Department on November 5, 2002, unclaimed. The family has subsequently received approval for a residential subdivision on the property by the City of Manchester. R. Dolbec questioned whether the property directly adjacent to Site 44, which is owned by others, has been listed for sale and it contains portions of Mosquito Brook, may be just as appropriate. P. Stamnas mentioned that the discussion should focus on the property owned by the Giovagnoli's, as the Department did not identify this other property in the hearing and the owner would need to be a willing seller. This could be problematic if the purchase price was not agreeable to the owner.

Discussion on the option of incorporating an easement along Mosquito Brook in addition to preservation of Site 44 Alt. ensued. This option could allow the remainder of Site 44 to be developed. R. Roach stated that this may be appropriate and suggested a 100-foot buffer along Mosquito Brook and a buffer along the Cohas Brook wetland, which is located in the west portion of Site 44. R. Dolbec indicated that the subdivision plan was provided to the Department to use in the property appraisal. P. Stamnas stated that the plans will be reviewed by the Department, the wetlands would be verified and a plan package will be devised that will include buffers to Mosquito Brook on Site 44 as well as preservation of all of Site 44 Alt. The plan will be brought back for discussion at the May Natural Resource Agency Meeting. M. Laurin will contact the Department's Bureau of ROW to obtain a copy of the subdivision plan, will verify the wetland delineation and will put together a new package for this discussion.

*This project was previously reviewed on the following dates: 8/10/1995, 1/10/1999, 2/16/2000, 5/17/2000, 6/14/2000, 7/19/2000, 8/10/2000, 9/20/2000, 10/18/2000, 1/17/2001, 2/14/2001, 3/21/2001, 4/18/2001, 5/10/2001, 8/15/2001, 9/19/2001, 10/17/2001, 11/21/2001, 1/16/2002, 2/20/2002, 5/15/2002, 6/18/2003, 10/15/2003, 12/17/2003, 10/20/2004, 11/17/2004, [1/18/2006](#), [12/19/2007](#), [2/20/2008](#), [10/15/2008](#), [12/17/2008](#), & [1/21/2009](#).*

### **Bedford-Manchester-Londonderry, DPR-F-0047(001), 11512**

Cathy Goodmen introduced the project which involves the construction of the Manchester-Boston Regional Airport Access Road. As part of the project's mitigation package, the Department has obtained several conservation easements intended to provide a wildlife corridor. The owner(s) of the Tamposi-Nash parcel(s) wish to build several stormwater detention ponds within the subject conservation easement. The Natural Resource Agencies previously stated that the wildlife corridor should remain undisturbed and detention ponds should not be built within the easement. It was indicated that clean overflow water from the detention ponds could outlet into the corridor.

LynMarie Cusack indicated that the entire Tamposi-Nash parcel is approximately 340 acres. The Department's 67.667 acre easement is located within the parcel. The Department has offered \$1.431 million in damages. L. Cusack indicated that the owner(s) believes the easement is worth more, as the above noted restrictions limit development outside of the proposed conservation easement. The Department has placed a tender in the amount of \$120,000 and this will be reviewed in Sept of 2009 by the Bureau of Tax and Land Appeals to determine the assessment of the easement. She noted that legally, despite these outstanding issues, the Department has already obtained the conservation easements on the subject properties.

Rich Roach asked if the Department would be removing the undersized culverts that are currently located within the easement. Alex Vogt noted that the Department would install larger culverts as necessary. He also noted that the Department intends to remove some pavement from the airport parking areas and re-vegetate that area. The Department will also re-locate the seasonal stream that has been disturbed by the sand and gravel operation currently on the property. A. Vogt indicated that the Department expects to complete design in late 2009 or early 2010.

A. Vogt indicated that the Town of Londonderry is planning to develop Pettingill Road, which is currently a Class VI road. The wildlife corridor will run under this roadway and the Department is working with the Town to design an appropriate wildlife box culvert. It is anticipated that this culvert will be 12 feet wide by 6 feet high with a natural bottom, to facilitate animal passage. This culvert is included as part of the Department's mitigation package and as a result, it is anticipated that the Town of Londonderry would not need a wetland permit for this effort.

*This project was previously reviewed on the following dates: 11/14/1996, 4/16/1997, 5/28/1997, 8/20/1997, 12/16/1998, 1/20/1999, 10/20/1999, 12/15/1999, 2/16/2000, 3/22/2000, 6/14/2000, 3/21/2001, 4/18/2001, 1/16/2002, 8/21/2002, 6/18/2003, 3/24/2004, 7/21/2004, 9/15/2004, 10/20/2004, 12/15/2004, [9/21/2005](#), [3/15/2006](#), [5/17/2006](#), [8/23/2006](#), [3/19/2008](#), [6/18/2008](#) & [8/20/2008](#).*

## **Plaistow, (Federal ARRA), 14390**

Matt Low (Project Director) described the project. This project involves the complete reconstruction of the Garden Road Bridge over the Little River in Plaistow. The existing bridge consists of a cast-in-place reinforced concrete arch with filled spandrels. The concrete arch has a clear span of 17' and a rise of 13'-6". The out-to-out bridge width is approximately 27' with metal W-beam bridge railing on each side. The travel way is 23'-0" from face of curb-to-curb. The reinforced concrete arch is supported by spread type footings. There is a 12° skew to the bridge and there are U-back stone wingwalls at each end of the bridge. The bridge has an AASHTO sufficiency rating of 29.0% and is listed in the NHDOT Municipal Bridge Red List. According to the Individual Inventory Form prepared by Preservation Company, the arch was constructed in 1918.

Field observations in conjunction with review of the NHDOT Bridge Inspection Reports found the current condition of the bridge to be in poor to serious condition. The existing bridge exhibits severe spalling of the concrete arch with considerable amounts of exposed reinforcing steel. The concrete arch has an inadequate concrete cover over the reinforcing steel on the underside (intrados). This has led to accelerated spalling and delamination of the concrete as well as severe corrosion of the reinforcing steel. Parapet walls have suffered major cracking and spalling that has led to movement of as much as 2". Leakage through the arch has allowed excessive amounts of salt-laden water to reach the exposed reinforcing steel causing accelerated deterioration. Due to the type and time of construction, it is postulated that no waterproofing barrier membrane has been used to protect the backfilled concrete surfaces. The concrete facing of the arch and parapet walls appear to be in severe condition with moderate to severe exposed aggregate. Several ¼" to 2" wide vertical and horizontal cracks run on the entire face of the parapet walls. The arched structure has noticeable erosion at the waterline. There is minor embankment erosion on the northwest and southwest corners of the bridge structure. The bridge guardrail, which consists of rolled W-shape posts, is substandard and does not meet current code requirements. Currently the bridge is posted with an "E-2" sign meaning Certified Vehicles are precluded from using the bridge.

The proposed improvements will widen the existing roadway width of 23' near the bridge to accommodate two (2) 12' travel lanes and one (1) 5' wide sidewalk. The proposed bridge is comprised of precast concrete footings, pedestal walls, and a 20' clear span precast concrete buried rigid frame with precast concrete headwalls and wingwalls. This structure was chosen because it resulted in minimal adverse environmental impacts to the Little River, simplified water diversion, and economical cost. The estimated construction cost for the proposed improvements is \$560,000.

The project was originally developed under the Municipally Managed Bridge Aid Program. The project was brought to the monthly Cultural Resource Agency Coordination (SHPO) Meeting on September 7, 2006. At this meeting it was determined that the project would not have an adverse affect on historic and archaeological properties. It was stipulated that if any of the proposed work extended outside of the right-of-way, then further historic/archaeological investigation would be required due to an 18<sup>th</sup> century dwelling adjacent to the work area.

In March 2008, NHDES issued a Wetlands and Non-Site Specific Permit (file #2008-00375). The proposed project necessitates 1,034 square feet of permanent wetland impacts and 506 square feet of temporary wetland impacts for a total of 1,540 total square feet of permitted wetland impacts. The length of flow through the project area is 33.5 feet. There are no threatened or endangered species or exemplary or critical habitats in the project area. The project does not impact any Section 6(f) properties or properties protected by Section 4(f).

Throughout the project design phase, the Town was not able to raise their percentage of funds for the construction phase. In March 2009, this project was approved by NHDOT to be eligible for the American Recovery and Reinvestment Act (ARRA).

Hoyle, Tanner will provide a copy of the Cultural Resource Memorandum of Affect to Jamie Sikora per his request.

Hoyle, Tanner has prepared and submitted the Categorical Exclusion letter package to Kevin Nyhan and is awaiting his review comments.

No further action or meetings were required.

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

### **Bath, X-A000(901), 14439**

This project consists of the rehabilitation of the Village Covered Bridge over the Ammonoosuc River. Work includes realignment of the bridge trusses, replacement of deteriorated members, installation of a fire detection system and lighting, installation of a new standing seam metal roof and minor approach work. An initial project review was presented.

Sean James of Hoyle, Tanner presented the project on behalf of the Town of Bath. The project goal is a rehabilitation of the Bath Village Covered Bridge for a 10-ton live load. The project design is funded through the NHDOT Municipal Bridge Aid program. Construction and Construction Engineering are being funded through the National Historic Covered Bridge Preservation Program. Bidding of the project is expected in the fall/winter of 2009 with construction beginning in the spring of 2010. Sean James provided a written project summary, photos of the bridge and a plan and profile view of the project to those present and then proceeded with the following overview of the project.

The project includes the following major work items:

- Minor improvements to the bridge approaches (within existing right of way).
- Replacement of the existing metal roof.
- Partial replacement of broken/rotted/undersized members.
- Full replacement of siding and decking.
- Replacement of bed timbers and timber bents.
- Jacking / realignment of the bridge trusses

- Minor pier and abutment repairs.
- Application of a fire retardant coating.
- Installation of new lighting.
- Installation of a fire detection system.

#### Project Natural/Cultural Resource Discussion

- The project has been presented at the 9/11/08, 10/9/08 and 4/2/09 NHDOT Cultural Resource Committee Meetings. Consultation is ongoing.
- No known threatened or endangered species in the project area.
- Work to be completed within the existing right of way.
- No 4(f) or 6(f) property use.
- NHDES Standard Dredge and Fill Permit Required.
- Ammonoosuc River is a NH Designated River
- Consultation with Selectboard and Bridge Committee.

There was some discussion regarding the temporary shoring for the bridge, which may involve approximately 3,000 square feet of temporary wetland impacts. An NHDES Standard Dredge and Fill permit will be applied for. A waiver may be applied for the Comprehensive Shoreland Protection Act since project funds were appropriated before its enactment.

Gino Infascelli asked if the shoring plan would be submitted with the NHDES permit. S. James explained that the intent is to leave the exact method of shoring up to the contractor. A detailed specification would be provided and the plan reviewed by Hoyle, Tanner prior to the commencement of construction. This method works best as there are many ways to shore a bridge. On past projects many variations have been used including timber bents or cribbing in the river, steel beams under the bridge, a modified cable support structure built within the bridge or the installation of a bailey bridge within the covered bridge.

Vernon Lang noted that the bridge is located directly upstream of a hydro dam and asked if a lowering of the impoundment would be required. S. James responded that a lowering would not be necessary as part of the project. The dam owner does generally complete repair work to the dam in August and the contractor could take advantage of this, but it is not necessary.

Carol Henderson asked what the project timeframe is. S. James replied that the Town wishes to bid the project in the fall of 2009 and that NHDOT has given the Town permission to begin the final plans, however the length of the NHDHR review is unknown at this time.

Kevin Nyhan indicated that the next step would be to complete a CE form for the project. The Non-Programmatic CE would be required if NHDHR determines that is the project will have an adverse effect an any area historical resources.

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

## **Swanzey, X-A000(713), 14195**

This project involves the installation of stone stream barbs upstream of the Thompson Covered Bridge and underpinning of the center pier. The project is being permitted and bid in conjunction with the removal of the Homestead Woolen Mill Dam. An initial project review was presented.

Sean James of Hoyle, Tanner presented the project on behalf of the Town of Swanzey. The scope of this project includes the design of scour countermeasures and a deluge sprinkler system for the Thompson Covered Bridge. The need for the scour countermeasures is a result of the planned removal of the Homestead Woolen Mill located downstream of the bridge. Deb Loiselle from NHDES presented a discussion of the status of the Homestead Woolen Mill Dam removal.

The project design is funded through the National Historic Covered Bridge Preservation Program and NHDOT Municipal Bridge Aid program (sprinkler portion). There is a potential for partial construction funding through the American Recovery and Reinvestment Act.

S. James provided a written summary of the project, project photos and two plans from the preliminary plans for the project and then proceeded with the following discussion of the project.

The project goal is to provide scour countermeasures and arson protection to the Thompson Covered Bridge and includes the following major work items:

- Underpinning of the bridge pier.
- Reshaping / additional stone fill at the abutments.
- Installation of stone stream barbs upstream of the bridge.
- Stone work and underpinning will occur in the dry with the river diverted.
- Installation of a deluge sprinkler in the bridge.
- Project Partners
  - Haley & Aldrich – Stream barb / stone fill design.
  - SFC Engineering Partnership – Sprinkler design.
  - VHB – Stream modeling and survey assistance.

The Homestead Woolen Mill Dam removal is being designed by VHB with NHDES and NOAA acting as the lead agencies. The dam will be removed and replaced with a series of stone weirs. As the dam removal design has been ongoing for some time, a great deal of cultural and natural resource study that is pertinent to our project has been completed. The dam removal and scour countermeasures will be bid as one project. Bidding of the project is expected in the spring of 2009 with construction beginning in the late summer of 2009.

### **Project Natural/Cultural Resource Discussion**

- This project has been presented at the 9/11/08 and 4/2/09 NHDOT Cultural Resource Committee Meetings. A 'No Adverse Affect' decision is expected soon. The dam project has a Memorandum of Agreement.
- Area Form has been completed. Bridge on National Register.
- The federally endangered dwarf wedge mussel habitat is at the bridge/dam.

- A section 7f consultation is ongoing.
- An easement for a stream barb is required from the Swanzey Athletic Assoc.
- No 4(f) or 6(f) property use.
- NHDES Standard Dredge and Fill Permit being applied for as a joint project.
  - Ashuelot River is a NH Designated River
- Consultation with Selectboard and public presentation on 4/1/2009.

Deb Loiselle provided a brief update on the dam removal project and coordination with the Thompson Covered Bridge project. The dam removal project has been ongoing for 11 years with construction expected to take place this year. VHB presented the project at the April 14th Swanzey Conservation Commission meeting and no concerns were expressed. The Ashuelot River LAC has reviewed the project and the only concern noted was related to canoe access, which will be addressed.

Rich Roach asked for additional information on temporary access and the stream diversion. S. James explained that Town owned land to the south east of the bridge would be used for access. The plans will include provisions for diversion of the river to allow construction to occur 'in the dry'.

Jen Gilbert asked if the flood levels would be affected by the dam removal. D. Loiselle responded that a Letter of Map Revision would be completed as part of the dam removal project.

Vernon Lang asked how the stream would be diverted. The design plans show a conceptual diversion plan utilizing a Portadam, however the exact method will be proposed by the contractor and reviewed by the Town's engineer.

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

### **Bethlehem, X-A000(860), 15664**

Chris Carucci provided a summary of the project. This project is part of the Statewide Culvert Rehabilitation Program. A 5' wide x 3' high x 53' long concrete box culvert is located under US Route 302, approximately 0.6 miles east of NH Route 142. The culvert carries a tributary to Barrett Brook, a perennial stream with a watershed of 125 acres upstream of the culvert. The culvert is adequately sized but is deteriorating and requires replacement. The project will consist of replacing the culvert with a 5' x 3' precast concrete box in the same location, and extending the outlet 8'. A catch basin is currently tied directly into the box; this will be relocated away from the culvert. Work would begin after securing permits and easements, which will likely be next summer.

Sewer and water lines exist under the existing culvert. The depth of these lines is unknown at this time and the only way to find out is to dig a hole in the road. Embedding a culvert at this location would likely require the relocation of these utilities. Because this would be costly, a natural-bottomed/embedded culvert is not the preferred option for this location.

Carol Henderson asked why the outlet would be extended and how the outlet drop would be fixed. C. Carucci explained that the current condition is hazardous due to a narrow shoulder adjacent to the end of the culvert. The steep drop at the outlet would be fixed by tapering the drop with stone.

Rich Roach asked about the size of the stream and its biological function. C. Carucci said that the stream is approximately 3 to 4 feet wide with a relatively steep slope in the upper reaches. The stream is shallow in the summer and portions of it dry up. The culvert is inlet controlled and velocity through the culvert varies from 4 to 8 ft/s.

Vern Lang said that the depth of the utility lines needs to be ascertained in order to determine the feasibility of embedding a culvert at this location.

R. Roach asked if it would be possible to mold a roughened concrete bottom instead of embedding the culvert. C. Carucci thought that it might be possible and would likely be the least expensive option at this location. He asked if a roughened concrete bottom would meet criteria established for natural bottom culverts. R. Roach thought it would be acceptable and agreed that, if possible, this option would make the most sense at this location. He suggested that if a roughened concrete bottom is used, its effectiveness could be monitored by doing biological surveys before and after construction.

Melissa Coppola asked if the Natural Heritage review identified any records in this area. Christine Perron said that no records had been found.

This project will be discussed at a future meeting when more information is obtained on the depth of the utility lines under the culvert and the feasibility of creating a roughened concrete bottom. Subsequent to the meeting, C. Carucci contacted a precast manufacturer. The initial manufacturing process requires that the culvert have a smooth interior so that the forms will release. After casting, a 4" layer of new concrete could be placed in the bottom of the culvert, which could then be finished with almost any texture desired. Further discussions will determine the cost and practical type of finishes.

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

### **Hampton-North Hampton, 15678 (Non-Federal)**

This project will widen Interstate 95 at the Hampton toll plaza and retrofit the existing facility to implement high speed (open-road) tolling. This priority project is scheduled to advertise for construction at the end of June 2009.

Bob Driscoll, HNTB provided an overview of the project and the environmental implications, which consist of the following:

1. The Flood Insurance Rate Maps (FIRM) for Hampton and North Hampton show areas of 100-year flood (Zones A and AE) that extend over the interstate. The Department will be working with NHOEM and FEMA to demonstrate that the roadway is higher in elevation

than the 100-year floodplain, and that the project will not appreciably affect flooding dynamics. *(Following this meeting, it was determined, through consultation with FEMA, that a Letter of Map Revision (LOMR) was not required for this project. The Department will continue to coordinate with FEMA to the project is in compliance with the National Flood Insurance Program (NFIP).)*

2. The project team limited impacts to wetlands insofar as possible. The expansion of the facility to accommodate the additional booths and the incorporation of permanent surface water treatment areas will impact approximately 6,500 sf of palustrine wetlands. The area of impact for the treatment basin (4,000 sf) lies between the interstate and the NH Route 101 southbound off ramp. Rich Roach asked who delineated the wetlands. Kevin Nyhan responded that he and Cathy Goodmen did. Lori Sommer asked about the outstanding mitigation at the facility. K. Nyhan stated that the Department does not propose to mitigate the impacts associated with this project as they do not meet the 10,000 sf threshold, but would be finalizing outstanding mitigation through a payment into the Aquatic Resource Mitigation fund. The project qualifies for processing as a State Programmatic General Permit.
3. Treatment of stormwater runoff is proposed to the extent that is reasonably possible given the constraints of the abutting wetlands. Four areas of treatment are being evaluated, two are envisioned to be treatment basins and two are treatment swales. The presence of underground utilities may make the two-swale locations difficult to work with.
4. Carol Henderson asked if the Department would be including areas for small animals to pass through the proposed Jersey Barrier at the facility. John Corcoran responded that there are approximately 50 small animal kills per year at this location, but maintenance does not actively track them. After discussion regarding the feasibility of providing some type of break in the barriers, which include three separate walls (one between the northbound and southbound barrels of the interstate and one each between the high-speed tolling facilities and the normal facilities), the Department said that it would evaluate the possibility. Resolution would be addressed in the design and environmental document. Rich Roach suggested that perhaps fencing could be used to deter animals from getting onto the roadway in the first place.
5. The project will add approximately 3 acres of impervious surfaces. No one commented and no one from the DES Watershed Bureau was in attendance.

*This project was previously reviewed on the following date: 3/18/2009.*

### **Manchester (No Numbers) (Non-Federal)**

The project was presented by Ted Setas. This project consists of roadway improvements to three intersections (Campbell Street/ Hamel Drive, Campbell Street/ US Route 3, and Hamel Drive/ Bicentennial Drive).

This project was first presented to the Natural Resource Agency on February 18, 2009 on behalf of the City of Manchester. Based on comments received at that meeting, modifications to the plan were needed. Hoyle, Tanner has since modified the design and presented this revised plan to the board today.

At the previous meeting, three (3) major concerns were expressed.

The first concern was the proposed replacement in-kind of the existing twin 54" CMP culverts under Campbell Street. It was felt that the lengthening of the pipe culverts would be unfavorable for wildlife and it was asked if a natural streambed box culvert could be investigated. Hoyle, Tanner has revised the plan to reflect a proposed box culvert which is yet to be designed. A hydraulic study will be completed in the near future to determine its feasibility. Hoyle, Tanner noted that a downstream dam at Dorr's Pond experiences flooding issues and it will be necessary to ensure that the hydraulic opening of the proposed box culvert does not exacerbate the problem.

A second concern was that the length of open channel stream flowing through the twin culvert would be reduced by the lengthening of the twin culverts. This issue should no longer be a concern as the proposed box culvert allows the channel length to be approximately the same as today.

The final concern was the further impairment to the unnamed brook and Dorr's Pond due to the addition of approximately 1,200 square feet (SF) of impervious area proposed in this project. These areas are impaired for chloride, chlorophyll, and dissolved oxygen saturation. At the previous meeting the resource agencies expressed concern that the subject project would further impair this water body through a net increase in impervious surface area. As a result of these comments, Hoyle, Tanner presented a revised plan showing a net decrease in pavement area within the watershed of 4,740 sf. This plan, which was provided as a handout, includes the removal of 5,430 sf of pavement along Hamel Drive, 4,200 sf of pavement along Bicentennial Drive in Manchester, 4,800 sf of pavement along Bicentennial Drive in Hooksett, and a change from concrete to bark mulch medians accounting for 2,390 sf. Hoyle, Tanner noted that the Town of Hooksett is proposing, under a separate paving project, to remove 8' of roadway pavement for a length of 4,600 linear feet beginning at the Hooksett town line and continuing north along Bicentennial Drive. The resulting removal area would be approximately 36,800 sf. Of that area, only 4,800 sf is being claimed by this project as a reduction, though more area could be within the watershed.

Those present indicated that the concerns of the previous meeting had been addressed. Vernon Lang requested that the project be reviewed again the culvert design is advanced.

*This project was previously reviewed on the following date: [2/18/2008](#).*

### **Londonderry, 15589 (Non-Federal)**

The project proposes improvements to the intersection of NH Route 28 and Page Road. Work includes roadway widening for turn lanes and installation of traffic lights. Wetlands located along the existing toe of slope will be impacted. An initial project review was presented.

Michael Leach, Jerry Fortin and Andre Betit from Stantec Consulting Services, Inc. presented the project. Michael Leach opened the meeting with a brief overview of the location along Rockingham Road (NH Route 28) at the intersection with Page Road. The project improvements are for roadway widening for traffic signals and turn lanes at the intersection. Wetlands are located along the toe of slopes and the proposed shoulder widening would extend fill slopes further into the wetlands along the current toe of slope of the existing roadway. The project proposes 16 wetland impact areas totaling 9,800 square feet with the smallest being 15 square feet and the largest approximately 2,400 square feet. Wetland impacts were reduced with the installation of guardrail and utilization of 2V:1V slopes. In addition, the project proposed some culvert extensions. The wetland impact total presented was for temporary and permanent impacts including silt fence. It was noted this was the initial presentation for the project. Copies of the proposed design at a reduced scale and pictures of the impact areas were provided to attendees.

The NH Natural Heritage Inventory information for the project was provided. This inventory indicated the potential presence of the Blanding's Turtle within the project area. Kim Tuttle was contacted relative to the Blanding's Turtle and it was noted her concern was relative to any culvert work along perennial streams. The project has one culvert located on Page Road with a perennial stream but no work is proposed at the culvert under the project. An e-mail response from Kim Tuttle relative to the Blanding's Turtle indicating that NH Fish and Game was in agreement with the project as proposed.

It was asked what size the existing culverts are. Mr. Leach responded that the largest culvert is 30" in diameter and that the proposal is to extend it. He also noted that there are several other 15" and 18" culverts which are proposed to be extended as part of this project.

It was asked if impact area L is a vernal pool. M. Leach responded that the area was typically dry in June and that there were no indications that this area is a vernal pool.

It was noted by Rich Roach that the project would qualify for coverage under the NH Programmatic General Permit.

It was asked who performed the wetland delineation. M. Leach responded that he did the delineation in November 2008 and the pictures of the impact areas provided were taken in on March 31, 2009.

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

### **Auburn, 15657 (Non-Federal)**

This project will replace the deck of the bridge that carries Old Candia Road over Maple Falls Brook (088/159). This bridge is a three-sided concrete box constructed in 1929 and widened in 1958. The project is located within the Protected Shoreland of Clark Pond. An initial project review was presented.

Michael Leach and Rene LaBranche from Stantec Consulting Services, Inc. presented the subject project. Michael Leach provided a brief overview of the bridge history (constructed in 1929 and extended by 20 feet north and south in 1957) and need to replace the bridge deck, including the project limits. Old Candia Road was the former location of NH Route 101 and the roadway is now owned by the Town of Auburn. The bridge had developed a hole in the 1930 portion of deck in 2007 and a steel plate was placed over the hole. The steel plate was identified in the photographs provided to the attendees. The project proposes to replace the entire 1929 portion of the deck. It was noted that this was the initial presentation for the project. Half scale size plans and pictures of the existing bridge structure and the proposed plans for improvements were provided to all attendees.

Although no wetlands are to be impacted, a Notification of Routine Roadway Maintenance Activities will be submitted to NHDES for the project. The project utilizes BMPs 4 (Outlet Protection/Stone Riprap) and 5 (Sandbags). BMP 5 is for a sand bag cofferdam that may be used based on Contractor means and methods.

A NH Natural Heritage Inventory search of the project area indicated the potential presence of the Common Loon to the west of the project site. The results of this search as well as an e-mail response from NH Fish & Game relative to the Common Loon were provided. This information indicated that NH Fish and Game was in agreement with the proposed project. It was noted the work was located within 250 feet of Clark Pond, but the shoreland permit for the project would be addressed under the Notification of Routine Roadway Maintenance Activities .

The deck replacement will be conducted in 2 phases to maintain two-way traffic. The first phase will shift the traffic to the northerly side of the bridge to allow for the removal and reconstruction of a majority of the 1929 portion of the deck. The second phase will shift traffic to the south to complete the construction.

It was asked if the entire structure was to be replaced. M. Labranche noted that only the deck of the 1929 portion was to be replaced.

The strength of the remaining portion of the structure was questioned. M. Labranche noted that core samples were done on the 1929 deck and wall portions, and one on the 1957 deck portion. The 1957 portion is solid, as is the 1929 wall portion. As part of the deck removal, temporary wall bracing will need to be put in to stabilize the walls from moving while the deck is replaced. The Notification of Routine Roadway Maintenance Activities addresses this issue of the work under the structure.

It was noted by the Rich Roach that the project as proposed is not located within Army Corps jurisdiction.

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