

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: October 17, 2007

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Bill Hauser
Bob Aubrey
Bob Landry
Cathy Goodmen
Chris Waszczuk
Christine Perron
Darrel Elliott
Dave Scott
Jim Bowles
Jim Kirouac
Jim Marshall
Jon Hebert
Kevin Nyhan
Marc Laurin
Mark Hemmerlein
Matt Urban
Mike Dugas
Mike Hazlett
Randy Talon
Ron Kleiner
Steve Johnson
Wendy Johnson

**Federal Highway
Administration**

Bill O'Donnell
Jamie Sikora
Leigh Levine

NHDES

Gino Infascelli
Lori Sommer
Steve Couture

**NH Office of Energy and
Planning**

Jennifer Gilbert

NH Fish and Game

Kim Tuttle

**NH Natural Heritage
Bureau**

Melissa Coppola

**US Fish and Wildlife
Service**

John Warner

EPA

Mark Kern

Army Corps of Engineers

Rich Roach

Town of Durham

Dave Cedarholm

CLD Engineers

Jamie Paine
John Byatt

Louis Berger Group

Chris Daigle
Jason Gallant

**Friends of the Northern
Rail Trail**

Alex Bernhard

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:

(minutes on subsequent pages)

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[Rochester, 10620G \(Non-Federal\)](#)

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

NOTES ON CONFERENCE:

Finalization of August 15, 2007 Meeting Minutes

The August 15, 2007 meeting minutes were finalized.

Epsom, 14896 (FEMA funded)

The purpose of this meeting was to present information about the proposed replacement of the Center Hill Road Bridge in Epsom and the potential effects to natural resources. Jason Gallant presented an overview of the project.

The existing one-span bridge, built in 1930, is a steel beam deck structure approximately 22 feet long and 22.5 feet wide. As a result of the flood events of April 15-17 2007, the bridge and roadway were overtopped and experienced significant scour and undermining. The undermining of the west abutment racked the bridge superstructure and allowed backfill to wash out of the opened construction joint in the abutment. Additionally, the bridge has settled between 18" and 24" due to abutment scour. Following the flood, the structure was shored in an effort to re-open the structure to traffic. The structure is anticipated to be replaced during fall / winter of 2007 before the spring thaw season.

The Town of Epsom wishes to install a pre-engineered replacement bridge at the crossing before this winter with minimal approach work, followed by roadway reconstruction in the spring of 2008. It is anticipated that a temporary bridge will not be required and that all work associated with the project will be within the right-of-way. The elevation of the new roadway will be slightly higher than that of the existing bridge and the intent is to shift the roadway to the west away from Blakes Brook to minimize encroachment of fill slopes into the brook. There are no anticipated changes to the existing alignment of Sanborn Hill Road where it intersects with Center Hill Road.

Photos of flooding and damage to the bridge were presented. The current hydraulic opening is 16' (H) x 4.5' (V). The replacement bridge is intended to address needs for increased hydraulic capacity and safety. The structure is proposed to be realigned to better fit the channel with a hydraulic opening of 26' (H) x 7.5' (V). The required channel work is already being coordinated with NHDES, and the goal of this work is to limit disturbances to abutters.

Questions / Comments

R. Roach:

- When opening up the slope by the roadway, can you allow "plugs" for native trees to be planted along the roadway embankment? *Yes.*
- Is it a wet meadow? *No.*
- When does the Town want to build it? *The Town intends to pre-order the structure and install it this fall.*
- Can you close the road? *Yes. It is anticipated that the road will be closed for a few weeks to complete the installation of the new structure.*

- R. Roach asked the agency representatives in the group as to whether a SPGP would be appropriate for this project. *The group concurred that this action would be appropriate.*

K. Tuttle:

- K. Tuttle asked who owns the opposite (easterly) bank of the brook? *It is privately owned by the abutter.*

L. Sommer:

- L. Sommer asked K. Tuttle to comment on ESA issues. *Kim indicated that wood turtles may be present in the area and requested that the permit be written to restore a riparian buffer (35 feet) on the east side and as much as possible on the (west) road side of the project.*
- What is the length of channel disturbance / wetland impact? *The impact is approximately 4,000 sf and several hundred linear feet of stream channel will be affected.*

J. Warner:

- J. Warner concurred with the request to restore a riparian buffer to better match the cross section of the brook.
- J. Warner asked if the channel is migrating or if the structure has moved? *The brook now flows through and under portions of the abutments due to the scour damage and settlement of the structure.*
- J. Warner requested to make bridge as wide as possible to accommodate the channel.

M. Kern:

- M. Kern echoed concern on riparian buffer and agreed with approach on SPGP.

S. Couture:

- What is the size of the drainage area contributing to the site? *3 ½ sm.*
- S. Couture requested that the bridge span be set to accommodate 1.2 x bank width for dry areas in low flow condition.

Durham, 14553 (FEMA funded)

Jamie Paine and John Byatt from CLD Consulting Engineers presented a proposed project from the Town of Durham to replace the two adjacent single lane bridges (070/072 and 069/072) that carry Wiswall Road over the Lamprey River in Durham. The bridges were overtopped during spring 2006 storms and the area is currently being serviced by a temporary bridge. The project is being funded using Town, State, and Federal Emergency Management Agency (FEMA) monies. These bridges are on the NHDOT Redlist and included in the Town's Capital Improvements Plan for replacement.

During the May 2006 flooding, the bridges sustained severe structural damage and were closed to traffic. Currently, a temporary Bailey Bridge has been installed on top of the damaged bridges.

EXISTING CONDITIONS

The bridges date to 1950 and are adjacent to the Wiswall Dam. Both spans are steel I-beam structures with concrete decks. In 1976, the east span received a replacement concrete deck constructed with corrugated metal forms. The curbs were removed and the bridge rails were attached to the beam fascias. The bridge spans are founded on concrete capped stone abutments. The stone pier in the center was constructed using the stone bridge abutments, stone retaining walls on the sides, and fill in between. The crossing is located on the Lamprey River several hundred feet upstream from the Wiswall Dam.

The Wiswall Falls Mill Site, located immediately southeast/downstream of the project site, has been placed in the National Register of Historic Places (March 1998) in recognition of the extensive 19th century mill complex located at this site.

The bridge suffered damage in the flood of May 2006. Construction of a new bridge may require the removal of the existing 24-foot-wide pier to achieve the desired opening size. The Town would like to keep the bridge as a single-lane section

It should be noted that the Wiswall Dam is currently planned for a separate rehabilitation project and the ACOE is proposing to construct a fish bypass around the dam.

PROPOSED PROJECT DESCRIPTION

Single span and two span replacement bridges have been reviewed. It was determined that the concrete beam, single and two span arrangements were the only viable options as they minimize adjustments to the existing roadway profile while keeping the bottom of the structure above the 100-year floodplain elevation plus 1-foot of freeboard elevation. Single span steel girder and longer span options were reviewed, however, these designs require larger substructures and as a result the bottom of the structure cannot be raised above the 100-year flood elevation without substantially adjusting the roadway profile.

In order to address a flooding concern across Wiswall Road east of the bridge location, a low spot in the road profile is proposed to be raised to 1-foot above the 100-year floodplain.

The Town's preference at this time is a single span structure that would remove the current pier from the river. Removing the pier would remove a substantial impediment from the river, which has collected large trees during storm events.

IMPACTS ASSOCIATED WITH PROJECT

The proposed project would have the following approximate impacts (based on current design considerations) in or adjacent to the Lamprey River:

- The approximate area of the pier island is 30 ft by 30 ft, resulting in a disturbance/clearance in the river of 900 sq ft if the pier is removed. The volume of removal at the pier would be 480cy (assuming removal of pier extends from bridge seat to an approximated ledge elevation of 46 ft).
- Linear areas of impact along the river associated with the project are expected as follows:
 - Abutment A (Western Limit): 71ft
 - Pier: 34ft

- Abutment B (Eastern Limit): 63ft
 - Temporary Work Trestle: 46ft
 - Overall Length, both sides (not including trestle): 75ft
 - Overall Length, both sides (including trestle): 92ft
- Wetland impacts associated with the project are currently projected as follows:
 - Permanent Wetland Impacts = 3,829 sq ft
 - Abutment A = 1,605 sq ft
 - Abutment B = 1,068 sq ft
 - Pier = 1,156 sq ft
 - Temporary Wetland Impacts for Work Trestle = 5,697sq ft

COORDINATION EFFORTS TO DATE

Wetlands have been delineated through the project area. A tree inventory has also been completed along this portion of the Lamprey River (a fourth order stream).

Coordination has occurred with numerous agencies to date:

1. The NH Division of Historical Resources determined that the project must be reviewed by an archaeologist and historian. They inquired if the townspeople want to save the pier. At a public meeting held afterwards, no one requested that the pier be left in place.
2. The National Marine Fisheries service has stated over the phone that there might be a time of year restriction on construction in the open river, further coordination will occur.
3. The NH Natural Heritage Bureau (NHNHB) has stated the potential for Knotty Pondweed in the river. In the weeks following the October Natural Resource Agency Coordination Meeting, the river was reviewed for the presence of Knotty Pondweed. The river was surveyed upstream and downstream from the project area and a small gathering of Knotty Pondweed was found approximately 250-feet upstream of the project area. No temporary or permanent impacts are expected in this area. CLD is coordinating with the NHNHB however, due to its location upstream from the project area, it has been requested that no further action be required.
4. The NH Fish and Game Department's Marine section is currently reviewing plans.
5. A meeting was held with the Lamprey River Local Advisory Committee. They identified the parcel in the northeast quadrant of the project as having a conservation easement with a no-cut clause along the river. With this input, a temporary work trestle was relocated.

QUESTIONS / COMMENTS

- R. Roach inquired about whether leaving the pier was a viable option. Dave Cedarholm explained that the pier does not have good structural integrity. The pier would need to be completely reconstructed. This option is not proposed at this time.
- M. Coppola stated that the river should be investigated for knotty pondweed. *Findings will be coordinated with NHNHB. In the weeks following the October Natural Resource Agency Coordination Meeting, the river was reviewed for the presence of Knotty Pondweed. The river was surveyed upstream and downstream from the project area and a small gathering of Knotty Pondweed was found approximately 250-feet upstream of the project area. No temporary or permanent impacts are expected in this area. CLD is coordinating with the NHNHB however, due to its location upstream from the project area, it has been requested that no further action be required.*

- K. Tuttle stated that NHF&G's Marine section will be reviewing plans and providing any additional input as needed.
- K. Tuttle and L. Sommer stated that they'd prefer to hear the findings of the archaeologists and historians before providing a sign-off that the project is okay to proceed. *The project will be brought back to another Natural Resource Agency Coordination Meeting once that data is available.*

Alstead, X-A000(479), 14541K

Kevin Nyhan began the presentation by providing background on previous work at the bridge. This project consists of the replacement of the rigid frame bridge that carries NH Route 123 & NH Route 12A over the Cold River. This project was previously a rehabilitation project as a result of the flooding in southwest NH during October of 2005. However, the bridge continues to deteriorate, requiring the replacement of the structure. K. Nyhan stated that this section of river was part of the Cold River Restoration Study completed by Horizons Engineering. That study stated that this section of the river was straight with a hardened type substrate and did not exacerbate flooding problems during the flood. It went on to say that the bridge was approximately 67% of the bankfull width with a clear span of 60 feet.

Steve Johnson presented the design of the proposed replacement structure. The new bridge will be an 87-foot clear span, box beam structure. Class B riprap will be used at the quadrants of the bridge to protect the wings. Within the project limits, a closed drainage system will be constructed to replace the existing closed drainage system. Currently, some roadway drainage outlets to the river directly through a pipe in the northeast wingwall. This will be eliminated and rerouted. The profile and bridge width will not change, however one sidewalk will be eliminated on the upstream side and a wider shoulder will be provided on the downstream side to better accommodate turning movements.

Riprap will be utilized up to a point 2 feet above the Q-100 elevation (El. 468). Vegetation is proposed above this point. The slopes beyond the bridge along the Marx-Wood property will be stabilized by vegetative means. Vegetation will include turf establishment and native plantings, as appropriate.

Paper Mill Park, at the southeastern quadrant, will be impacted during construction. Plantings impacted by construction will be replaced or compensation will be negotiated with the town. This park is not a significant recreational resource as outlined by the town.

R. Roach asked why riprap would be used to a point 2 feet above the Q-100 elevation. S. Johnson responded that the 100-year flood elevation is a theoretical elevation and some freeboard is necessary to protect the wingwalls and the bridge. R. Roach asked if the riprap could be choked and planted. S. Johnson responded that the Department does not want trees growing up through the riprap which could compromise the riprap protection. Native shrub species would be considered. He also stated that the riprap slopes would need to be maintained. S. Couture asked that the Department match into the work the Natural Resource Conservation Service (NRCS) is completing along the river and that the Department utilize the same types of techniques including

incorporating plantings in the riprap with 8" of topsoil. The Department will continue coordinating with the NRCS on this issue.

M. Coppola, NHNHB, asked that she be included in the review and development of a landscape plan for the project.

No one in attendance objected to the proposed project. R. Roach indicated that the Corps has no Section 404 jurisdiction over the project as this is considered an emergency replacement of transportation infrastructure. No mitigation was requested for this project.

Andover, X-A000(219), 14169

Kevin Nyhan provided a brief description of the resources in the project area. Dave Scott presented the project design, which involves the removal of the bridge that carries NH Route 11 over US Route 4 and the Northern Rail Trail and the construction of an at-grade intersection. A 3-sided box culvert will be constructed under NH Route 11 for a grade-separated crossing for the Northern Rail Trail. The former structure at the site was a 6-span bridge that was constructed prior to the construction of Interstate 89. The bridge is in poor condition and needs to be addressed.

Natural resources in the project area include a small open water pond to the southwest of the project area and adjacent drainage ditches/swales. There will be no direct impacts to the pond, but some drainage areas will need to be filled.

Kim Tuttle, NHFG, inquired as to whether the box culvert is sufficient for snowmobiles, etc. Alexander Bernhard, Friends of the Northern Rail Trail, indicated that he has been working closely with the Department through design and that the box culvert size is appropriate. He added that the Northern Rail is eligible for listing in the National Register of Historic Resources and he is pleased with design. His major concerns are for: 1) maintaining the grade of the trail through the box, and 2) providing adequate drainage.

K. Tuttle asked that the culvert have a natural bottom as critters will use it. The current design has an open bottom with gravel materials for the trail.

No one in attendance objected to the proposed project.

SAFETEA-LU consultation & mitigation requirements for the Southern NH Planning Commission

Leigh Levine passed out copies of the Manchester Long Range Transportation Plan and asked the agencies in attendance to review the document paying particular attention to the discussion of environmental mitigation and project listing sections. L. Levine cited the environmental mitigation discussion beginning on page 63, and project listing information on pages 52 and 69.

Mark Kern suggested that the comments on the MPOs LRTPs would be largely the same. He suggested that the same comments be included as were discussed at the August 2007 Natural Resource Agency Coordination Meeting for the Nashua Region. These comments included:

1. Examining restoration/creation choices in light of the ACOEs recent push for creation over restoration/enhancement.
2. Considering the region's landscape, and tying in the transportation plan to protected wildlife and water supply areas.
3. Utilizing NH Fish & Game's Wildlife Action Plan as a resource. It is available on the Fish & Game website.
4. Considering cumulative impacts and in-lieu fee options for mitigation.
5. Further investigations into impacts on cultural resources. The OEP's State Development Plan is a good example for consideration of cultural resources within a broader planning document. The NHDOT Memorandum of Understanding on cultural resource assessments is a good resource.

L. Levine said that although a discussion of project-specific mitigation is not required, the group could provide additional project-specific comments related to mitigation or other concerns.

Bill O'Donnell asked that copies of the LRTP be transmitted to the NH Division of Historical Resources. Kevin Nyhan agreed to transmit them.

M. Kern asked if a website is available to view the LRTP. L. Levine said that he has a link to the .ftp site. That he would forward to Kevin Nyhan. The directions for downloading the document are as follows:

For Internet Explorer Version 6

1. Open Internet Explorer Version 6
2. Type [ftp://snhpc_ftp:snh81#k*\\$@ftp.snhpc.org](ftp://snhpc_ftp:snh81#k*$@ftp.snhpc.org) in the address bar.
3. Locate the appropriate folder (*Long Range Transportation Plan*) and open the file.

For Internet Explorer Version 7

1. Open Internet Explorer 7
2. Type <ftp://ftp.snhpc.org> in the address bar.
3. Select "Open FTP site in Windows Explorer"
4. A new window will open which may prompt you for a login and password. Enter the username: snhpc_ftp, and password: snh81#k*\$
5. Locate the appropriate folder (*Long Range Transportation Plan*) and open the file.

Citing the Manchester Airport Access road project, Rich Roach stated that the LRTP had a lot of highway project information and thought more intermodal transportation information would be useful.

Bartlett, BRF-MGS-X-0321(023), 13043

Mark Hemmerlein discussed the erosion along the Saco River on the southeast corner of the temporary bridge carrying US Route 302. It is believed that the causeway construction contributed to the problem and concerns of further erosion were voiced. Gino Infascelli and Steve Couture, DES, would prefer the installation of two stone fingers (barbs) to help prevent future erosion by directing water flow away from the bank and thus allowing the bank to restore itself over time. The trees that are hanging over the river should be cut with stumps left in place. It was mentioned that property rights have yet to be acquired.

DOT Environmental Audit and Implementation of Environmental Management System (EMS)

Bill Hauser discussed recent events that have occurred in response to a DES Administrative Order by Consent (AOC). He gave an overview of a new office being created within the DOT called the Office of Stewardship and Compliance.

Hampton, X-A000(229), 14188

The project involves rehabilitating the Neil Underwood Jr. Memorial Bridge (also known as the Hampton River Bridge) that is located on NH Route 1A in Hampton. Robert Aubrey presented an overview of the project. Work will consist of replacing the deck and automated gates, painting the lift span mechanisms, replacing or repairing the fender system, and repairing concrete abutments. If replaced, the fender system will be replaced in kind with treated wood or composite materials. Abutment repairs will be primarily to the southern abutment. Repair work will likely be done by hand below the bridge or with machinery from the bridge. A wetlands permit application will be needed for temporary impacts around each abutment in the event that repair work becomes more involved than anticipated and requires access to the abutments by larger equipment. Also, sand will need to be dug out by hand from around the concrete. This sand will be put back when the work is completed. The project will be carried out in the spring and fall seasons.

R. Roach asked if the US Coast Guard (USCG) was contacted. R. Aubrey said that Christine Perron has been coordinating with the USCG. R. Roach also stated that the proposed temporary impacts to areas adjacent to the bridge abutments would be exempt from a Section 404 permit since the work involves repair to an existing structure.

K. Tuttle suggested that NHF&G Marine Division be contacted regarding potential noise impacts to spawning fish.

G. Infascelli asked if the proposed impacts were to sand dunes. C. Perron answered yes.

G. Infascelli inquired about piping plovers. K. Tuttle said that plovers have not been nesting in the vicinity of the bridge in recent years. Both K. Tuttle and R. Roach would like Susi von Oettingen of USFWS to be contacted. K. Tuttle also recommended that any sand piles created in the spring

as a result of the abutment work should be covered with fabric to avoid attracting plovers during nesting season.

M. Coppola stated that she would like to continue to coordinate with C. Perron on avoiding impacts to the rare plants located around the southern end of the bridge. K. Tuttle suggested the use of snow fence to fence off sensitive areas that workers and equipment should avoid. R. Aubrey said that it might be possible to use fencing.

Gino did not have concerns about issuing a permit for the proposed temporary impacts.

New London, 14884 (Non-Federal)

Mike Dugas presented an overview of the project. The project involves expanding the existing park and ride facility from approximately 45 spaces to approximately 200 spaces. All work will be on NHDOT property. The facility has a small bus shelter with regular bus service (Dartmouth Coach). Cars regularly overflow the existing facility and park along the roadway. The goal of the project is to provide more parking, improve the bus shelter and bus access into the facility, and install a ticket kiosk. The design shown on the plan is a “blank slate” – it does not show lighting, landscaping, or the final shape of the lot.

Two broad environmental concerns are known: first, there are two wetland areas to the south of the existing lot. On the design shown, the larger of these two areas was avoided and the impacts to the smaller area were limited to approximately 4,000 sq. ft. The second concern is with water quality. This facility is located between Lake Sunapee, Little Lake Sunapee, and two ponds. Storm water treatment has not been finalized but two separate ideas have been discussed: use of an impervious surface on the lot and use of treatment areas to catch and treat runoff, or use of porous pavement or infiltration trenches between rows of parking spaces.

K. Tuttle asked what type of wetland system would be impacted. C. Perron responded that the impacts are primarily to PFO/EM wetlands.

M. Kern suggested that NHDOT coordinate with UNH on a low impact design. K. Tuttle mentioned that Stonyfield Farm recently constructed a parking lot using porous pavement. J. Marshall asked if it would be acceptable to increase wetland impacts in order to improve the design for water quality. Mark thought that would be acceptable.

G. Infascelli asked that snow storage areas be shown on the plan.

K. Tuttle asked why it was necessary to have three entrances. M. Dugas said that the bus entrance would improve safety by keeping bus traffic separate from car and pedestrian traffic.

J. Warner asked why the proposed size was chosen, if the size was based on traffic or growth studies, and if the project could be slightly reduced to avoid wetland impacts entirely. M. Dugas stated that it is difficult to project future usage; the proposed size was partly based on the observation that demand for parking facilities is growing in the Upper Valley and also on the wish to avoid the need for another expansion of the New London facility in the near future. L. Sommer

asked if there is a facility of similar size that could be used as a typical comparison. NHDOT recently completed a park and ride in Dover that has 400 spaces but that area has greater population density. It is difficult to compare facilities.

Bedford, X-A000(297), 13692A

This project consists of the reconstruction of the NH Route 101/ Hardy Road/ Jenkins Road intersection. J. Kirouac reviewed the updated design and impacts to wetland areas associated with the widening of this high accident intersection, which is a priority with the Town of Bedford. There is also a concurrent plan for a new private development (Hanaford Supermarket) in the northeast quadrant. Drainage was discussed. For the most part, the existing sheet flow runoff will be maintained within the majority of the project. Some curbing will be introduced in the vicinity of the intersection. The stormwater treatment measures for this closed drainage area will consist of a swale running along the west side of Hardy Road. This grass-lined swale will be stepped to slow the down-slope flows and increase treatment times. To accommodate additional treatment, the swale will fan out prior to its outlet to an existing wetland area. M. Kern inquired about any stream or water quality concerns in the area. There are no impaired streams and no impacts to surface waters. Total wetland impacts are estimated at 7,400 square feet over five wetland areas. R. Roach stated that the project qualifies for an SPGP. G. Infascelli had no concerns with this minor impact project.

Londonderry, 13015 (Non-Federal)

This project begins approximately 0.17 miles (900 ft) south of the NH Route 128 intersection with Stonehenge and Litchfield Roads, and runs northerly approximately 0.35 miles (1800 ft). This project involves the reconstruction of NH Route 128, Stonehenge, Litchfield and Bartley Hill Roads due to poor sight distance and prevalent accident history at the intersection. The intersection will be reconfigured and signalized. The work includes the addition of turn lanes, shoulders and a stone box culvert replacement.

NH Route 128 will be shifted approximately 12 feet to the east to eliminate impacts to two historic properties on the west side of NH Route 128 adjacent to Litchfield Road. Total permanent wetland impacts would be 2,500 ±SF. Temporary wetland impacts would be 3,600 ±SF. The bulk of the Temporary impacts can be attributed to the muck removal on the east side of NH Route 128.

Existing drainage patterns will remain essentially the same. A small closed system with catch basins and sumps is proposed in the intersection area, which will outlet into a vegetated swale area in the NE quadrant. The water from the vegetated roadside ditches along Bartley Hill and Stonehenge roads outlet to this area as well. This runoff from the side roads passes through a 30" RCP and across a depressed stone pad to reduce sediments and velocity. From this point the runoff flows across the widened vegetated swale area (with a 1.0% slope) prior to being piped to the discharge point near the inlet of the proposed precast box culvert under NH Route 128. *[During this presentation it was incorrectly mentioned that the total wetland impacts would be 2,500± SF when they will in fact be 25,000± SF. The Department is investigating appropriate forms of mitigation to compensate for these impacts.]*

The headwaters for Little Cohas Brook, which is located on the east side of NH Route 128, flows through a stone box culvert (6' wide x 7' high), which will be replaced. It was noted that the age of the stone box culvert was unknown and that it was not practical to extend or modify it and it would need to be replaced. An 8' wide, 5' high precast concrete box, (with gravel placed in the bottom), is to be built in the same location. A temporary diversion pipe is anticipated.

K. Tuttle noted that an open bottom would be preferred and that animal passage would probably be an issue in this area. Highway Design will look at whether a 6' high by 9' wide box culvert would be practical. Any structures 10 feet wide or wider are classified as a bridge structure.

G. Infascelli asked about treatment prior to discharge. J. Hebert responded that there was not enough room to maintain vegetated swales. The water may need to be piped and have some treatment in the southeast quadrant. The Town of Londonderry was planning drainage modifications uphill of this project. Design will report back at the November Natural Resources Agency Coordination Meeting.

Windham, STP-TE-X-000S(343), 13113

This project involves the construction of pedestrian/bicycle shoulders along Lowell Road in Windham between NH Route 111 and NH Route 111A (Range Road). Cathy Goodmen provided an update on the status of this project. Part of this project includes replacing a 48-inch RCP culvert downstream from a large emergent wetland. The existing 48-inch RCP is substandard and cannot adequately pass a 3.5-year storm. This section of the roadway floods on average every 3 years, but generally remains dry during the summer months. The roadway above the culvert is slightly higher than the surrounding area, directing the floodwaters over the road and to the east and west of the culvert, undermining the roadway and flooding nearby residential properties. The profile of the roadway cannot be raised because it would create additional impacts to nearby abutters. The proposal is to replace the existing culvert with a 9-foot wide by 6-foot tall concrete box culvert. The culvert will also be countersunk and the bottom covered with 2 feet of fill to provide a naturalized bottom, leaving a 9-foot by 4-foot opening to the culvert.

K. Tuttle asked what the current grade of the stream is. The grade of this section of the stream is approximately 1%. The Department's proposal is to install the culvert at the same inlet invert elevation at a grade of approximately 0.6 % and tie it into the existing streambed by excavating some of the downstream riverbed and installing rock at the outlet to prevent scour. It is unknown if there are currently any aquatic organisms passing through this culvert. The proposed box culvert should carry a 15-year flood event. The entire project is expected to be considered a major impact project by the Wetlands Bureau, however impacts are not expected to exceed 10,000 sq ft. and therefore mitigation has not been proposed. Those in attendance agreed with the proposed design and Rich Roach indicated that this project would qualify for coverage under the NH SPGP.

Rochester, 10620G (Non-Federal)

This project involves the construction of a five (5) acre mitigation site at the City Concrete site for impacts associated with the Spaulding Turnpike (NH Route 16) expansion. Volunteers are being sought for an Interdisciplinary Oversight Team (IOT). Those interested included Rich Roach, Maria Tur, Mark Kern (possibly), Gino Infascelli, Lori Sommer, Randy Talon, and Kim Tuttle. Kevin Nyhan will send out formal letters at a later date. This project is scheduled to advertise in October 2007.