BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: October 17, 2012
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Christine Perron
Marc Laurin
Kevin Nyhan
Alex Vogt
Mike Hazlett
David Gaylord
Dave Rodrigue
Rich Radwanski
Kirk Mudgett
Lucas Siik
Dean Eastman
Mike Dugas
Steve Liakos
Joe Adams
Nickie Hunter

Federal Highway Administration
Jamie Sikora

NHDES
Gino Infascelli

Army Corps of Engineers
Rich Roach

NH Fish & Game
Carol Henderson

Hoyle, Tanner & Associates
Sean James

Louis Berger Group
Tom Levins

Normandeau
Lee Carbonneau

Archer Western
Stephen DelGrosso

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

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NOTES ON CONFERENCE:

Finalization of August Meeting Minutes

The August 15, 2012 meeting minutes were finalized.

Windham, PS-514, non-federal

Marc Laurin handed out a locus map, wetlands map, and wetlands summary of the proposed site. Potential vernal pools were noted in two wetland areas, #4 and #6. Dave Rodrigue discussed the proposed Bridge & Highway Maintenance Facility that would be constructed on ±11 acres of land off Wall Street in Windham to be subdivided by the existing owner. A Purchase & Sales agreement between the owner and DOT is in progress. Access to the site would be provided by DOT with the construction of an ±800 to 1,000 foot extension of Wall Street. The existing maintenance shed in Salem doesn't meet the Department's needs and the added maintenance responsibilities for the widened I-93 in the area. Several state-owned properties were evaluated in the vicinity of Exit 3 and were found to have greater environmental concerns, such as being within the Canobie Lake and Cobbetts Pond watersheds, as well as commercial and social impacts. The proposed site is located outside the Canobie Lake and Cobbetts Pond watersheds, is adjacent to an industrial facility, abuts an I-93 stormwater detention pond, and would accommodate an emergency access road onto I-93. It is anticipated that less than ±10,000 square feet of wetland impacts would occur, mostly to forested wetlands.

Rich Roach expressed concern with the cumulative impacts of the subdivision on the remaining subdivided property located to the north of the proposed Maintenance Facility. He requested more information, including a zoning overlay and aerial map of the area, and the owner's development intent for the subdivision. Construction of the extension of Wall Street implies that additional permits will be required in the future. Gino Infascelli reiterated these concerns and stated that the Wetland Bureau's subdivision requirement rules would need to be addressed and that the Town's input on this subdivision proposal would need to be provided. D. Rodrigue stated that the sale has not yet been finalized and the owner is responsible for getting subdivision approval from the Town. He stated that the owner would most likely plan future developments on the subdivided property, which are beyond the DOT's control.

G. Infascelli and R. Roach thought that it made sense to site the facility next to I-93, but want to know if this will accelerate development or further depreciate wetlands in the area. G. Infascelli noted that the Maintenance Facility abuts a great blue heron rookery and further information on mitigation would be required, such as the preservation of a buffer, conservation of the rookery, and further limitations on the development of the parcel. R. Roach inquired about the existing Salem maintenance facility and its appropriateness for mitigation since it is in the Shadow Lake area, including restoration of filled wetlands as appropriate and possibly placing it in preservation. Rich Radwanski stated that the existing facility was adjacent to existing Town of Salem conservation land. M. Laurin and D. Rodrigue will further investigate the feasibility of the mitigation options and appropriate disposition of the existing facility as surplus property. Carol Henderson stated that the potential vernal pools within the parcel will need to be further assessed and identified on the plans, and that potential roadway flooding from beaver activity should be evaluated given the beaver activity in the adjacent wetlands.

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

Portsmouth-Kittery, 13678F, A000(911)

In response to a request from Rich Roach, Steve Delgrosso presented a proposal to remove the Kittery approach span piers, and drill micropiles on Pier 3 in Kittery, which is primarily a Maine issue. He began by summarizing where the project is to date: superstructure is removed, micropiles have been drilled on all but the last pier, and steel is being fabricated for delivery to the site.

In order to remove the Kittery approach piers, which would be done after 11/15/12 (within the allowable work window) at low tide, the concrete and granite blocks of each footing would be removed. Some debris from the removal may remain within the channel until the next tide cycle depending upon how much Archer Western (AWC) is able to remove within the 2-2 ½ hour cycle. R. Roach indicated that material left within the river between cycles may be construed as a discharge of fill, albeit temporarily. However, he did not oppose this condition, and asked that AWC and the Department coordinate with Jay Clement in Maine (ACOE). He asked if a causeway could be used for access. S. Delgrosso indicated that the operation is limited in the available headroom under the temporary work trestle that is in place so a causeway or timber mats would further limit operations and extend the removal timeline. R. Roach did not object, provided material removed from the foundation was ultimately removed.

R. Roach asked about acoustical monitoring of the operation as was a concern during earlier phases of micropile drilling. S. Delgrosso indicated that all noise that was generated was below the ambient noise level in the water.

Relative to the installation of the last micropiles in Kittery at Pier 3, S. Delgrosso indicated that to dewater, similar to the operation on the Portsmouth side, he would install a discharge hose from the micropile operation to Badgers Island. The discharge hose would outlet into sediment tanks and from the sediment tanks to a stone basin. The idea is that the discharge water would be largely free from turbidity after bleeding out of the rocks in the basin. AWC would be meeting with Maine DEP the next day to discuss this discharge and receive authorization.

R. Roach asked if the operation was being filmed. Steve responded that there are numerous web-cams running full time (http://www.portsmouthwebcam.com/). Structural steel is expected to be floated onto the piers before the end of December 2012.

This project was previously reviewed on the following dates: 10/20/2010, 4/20/2011, 6/15/2011, 12/21/2011.

Carroll, 21431, X-A002(196)

Jon Hebert provided an update on the project. The project consists of the construction of a new scenic overlook on the south side of US Route 302 opposite from the existing Mount Washington Hotel overlook. The new overlook will be located between the roadway and the railroad corridor (used by the Conway Scenic Railroad). The Ammonoosuc River is located on the north side of the existing overlook.

Since the project was last reviewed at the coordination meeting, the geotechnical report was completed for the project and revealed three issues that have led to changes in the proposed design due to constructability and budget concerns. First, there is a large amount of surface water runoff and groundwater in the project area. Second, the stability of the railroad corridor to the south of the proposed overlook must be taken into consideration. And third, the site is relatively shallow to bedrock, which will necessitate blasting when underdrain is installed.

The proposed overlook will result in approximately 4,000 sq. ft. of wetland impact. The project will also require a Shoreland Permit. The Ammonoosuc River is within an Outstanding Resource Water watershed and the project is located within a wellhead protection area. The river is also impaired for benthic macroinvertebrates. The 100-year floodplain is located close to the edge of the existing overlook; however,

the base flood elevation is not known at this time. The property to the north of the US Route 302 controlled access right-of-way is part of the Mount Washington Hotel property and is therefore considered a historic resource. For this reason, impacts to the hotel property will be avoided.

The Department's preferred alternative now consists of constructing the new overlook on the south side of the road and discontinuing the overlook that exists on the north side of the road. Stormwater treatment is proposed in the location of the existing overlook. The new overlook will have one entrance and one exit with one way traffic through the parking area. There will be spaces for twenty cars and six buses, while the existing overlook only accommodates four cars or two buses. The preferred alternative accomplishes several things. First, it reduces the likelihood of people walking across the road as they may have with two overlooks. Second, it provides space for a larger stormwater treatment area. Third, it eliminates any potential floodplain impacts. This alternative has been reviewed with representatives from the Hotel, since the Hotel is providing the match to the Scenic Byways grant that is funding the project, and the alternative was supported.

Kirk Mudgett provided a summary of proposed drainage and treatment. The water coming off the hill to the south of the proposed overlook will be diverted to either side of the paved parking area via a ditchline along the top of the overlook. The water from the paved area will be directed into a 190' long grass treatment swale located on the north side of Route 302. The swale will have an 8-minute resident time and will hold a ten-year storm. Slopes will be 4:1 from the road and 3:1 along the back. The bottom of the swale will be 8' wide with a 0.7% grade. The paved area at the existing overlook is 5,000 sq. ft and the proposed overlook will be 24,000 sq. ft., for a net increase of 0.4 acres, all of which will be treated.

Carol Henderson asked if anything would be planted in the vicinity of the discontinued overlook. Christine Perron replied that the proposed treatment swale would be grass. C. Henderson said that it would be more attractive if shrubs were planted along the edge of the swale. C. Perron said that this could be discussed. C. Henderson also said that the Ammonoosuc River is a Designated River and asked if there had been any coordination with the Local Advisory Committee. C. Perron said that she has been in contact with the group and they have also been invited to the upcoming Public Informational Meeting.

Gino Infascelli commented that the bridge at the entrance to the Mount Washington Hotel was recently replaced so detailed information on flood elevation may be available from that project.

K. Mudgett noted that the project is expected to advertise in February, with construction planned for summer 2013.

This project was previously reviewed on the following dates: 3/21/2012

Seabrook, 16444, X-A000(293)

Jon Hebert provided an overview of the project. The project is located on US Route 1, beginning just south of NH Route 107 and continuing approximately 2000' to the south. The project proposes to widen Route 1 approximately 8 to 10 feet to the west to add an additional lane so that there will be two northbound lanes, two southbound lanes, and a center turn lane. The sidewalk on the west side of the road will be replaced. The project will tie into the existing drainage system, which is currently closed drainage that outlets at two existing detention areas to the east of the project. A chloride-impaired waterbody (Cains Brook) is located approximately 0.3 miles to the south of the project. The proposed project would result in an additional 400 sq. ft. of pavement in the northern portion of the project, resulting in an increase in runoff of 0.4 cfs for the Q2 storm and 0.6 cfs for a Q10 storm, and 10,000 sq. ft. of pavement in the southern portion of the project, resulting in an increase of 0.03 cfs for a Q2 storm and 0.05 cfs for the Q10 storm. These increases are minimal and the project's consultant has confirmed that the existing treatment areas can handle this additional volume; therefore negative impacts on water quality are not anticipated as a result of this project.

The project will require a lot of coordination on right-of-way and utility issues. The project is currently expected to advertise in early 2015, with a Public Informational Meeting planned for October 23, 2012 and a public hearing in spring 2013.

Jamie Sikora asked if the municipality or DOT maintains Route 1 in the winter. J. Hebert stated that it is a DOT-maintained road. J. Sikora noted that DOT has done a lot to reduce salt usage on roadways in recent years.

Carol Henderson asked what the need for the project was. J. Hebert replied that US Route 1 within the project limits has two northbound tranvel lanes but only one southbound travel lane, while the abutting road segments provide two travel lanes both northbound and southbound. This results in a bottleneck at the traffic signal at Railroad Avenue and Pine Street.

Rich Roach asked who was funding the project. Mike Dugas responded that the project was part of the Highway Safety Improvement Program (HSIP), and federal funds would be used for 90% of the construction cost.

R. Roach asked if the construction of the project would encourage future development. M. Dugas stated that the area is relatively built out already. There may be some re-development of properties along the corridor in the future, but the project would not be the driving factor in this.

No other questions or concerns were raised.

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

Salem, 20225, non-federal

Tom Levins presented the plan and design information for the project. The existing structure is a metal plate pipe-arch, constructed in 1969. The overall structure length is 72 feet (length of pipe-arch) with a clear span of approximately 12’-8”. The condition of the existing structure is fair to poor with holes in the pipe-arch at the spring line and sagging of the “roof-line”.

The proposed replacement bridge is a concrete rigid frame structure with a span of 18 feet and a rise of 7.15 feet. The proposed bridge will maintain the existing rail to rail width and have an increased hydraulic opening (approx. 65% larger than the current). The proposed structure has an open bottom with rip-rap stone fill used to reduce foundation scour. The rip-rap will be mixed with natural streambed material to replicate existing channel conditions. A pebble count was done to ensure the proper gradation is specified to meet the existing streambed characteristics.

Wetland impacts have been minimized as much as practical. There is approximately 800 sf of impact (fill) along a portion of the roadway, and approximately 600 sf is mitigated in creating additional brook area through the bridge. The Salem Conservation Commission has approved the project as presented, and the Wetland Permit application (DES File Number 2012-02741) was submitted in September 2012.
The Natural Heritage Bureau review was done (NHB11-2365) and no sensitive species or natural communities were reported in the area.

The Town of Salem is planning to advance construct this project, which means that the Town will pay the entire construction cost and receive no reimbursement through the State Aid Bridge program.

Rich Roach asked if the bridge was designed to pass the 100-year storm. T. Levins explained that the bridge was designed to pass the 50-year storm with 1 foot of freeboard according to NHDOT guidelines, but the bridge also passes the 100-year storm.

Carol Henderson asked what the height of the existing structure was. T. Levins stated that it is about 6 feet. The new opening is approximately 7.15 feet high.

C. Henderson asked for further explanation of the proposed streambed construction through the bridge. T. Levins explained that bridge stone fill was required for scour protection for the foundations. The stone fill is approximately 2 feet thick. The top foot of stone fill will be mixed with streambed material that will be excavated to construct the foundations, replicating the streambed characteristics upstream and downstream. This procedure was used on the South Policy Street project in Salem in 2011 and seems to be working well.

R. Roach was interested in seeing a photo of the South Policy Street bridge showing the conditions. T. Levins explained that the streambed material is very dark upstream and downstream and the water is murky, resulting in poor visibility to the channel bottom. The assumption is that the natural stream bottom is still in place through the structure.

Gino Infascelli asked if a dry shelf could be constructed through the bridge for critters that do not swim. T. Levins stated that the structure would need to be larger to maintain the required hydraulic opening if the dry shelves were constructed. LBG did do an analysis to determine what size structure would be needed to meet the new Stream Crossing Rules and create dry shelves that would be outside the normal flow limits. The result was a hydraulic opening 349% larger than the existing bridge and 211% larger than the proposed bridge. This is not practical considering the proposed alternative passes the Q100 storm and limited Town funds would not warrant the additional cost. Experience has shown that dry shelves constructed in small bridges do not survive the first heavy storm.

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

Lancaster-Guildhall, 16155, A001(159)

Sean James of Hoyle Tanner & Associates, Inc. presented the project. The Roger's Rangers Bridge spans the Connecticut River between Lancaster, New Hampshire and Guildhall, Vermont. It is a two-span, steel truss bridge constructed in 1950. There are issues with rust, vertical clearance, and the condition of the abutments and piers. Two options are currently being considered: 1) rehabilitation of the existing bridge, which would include the construction of a temporary bridge to the north (upstream); and 2) replacement of the bridge with a permanent new structure to the north (upstream). The project was presented at the Cultural Resource meeting last week, and has a Public Informational meeting scheduled for November 8th in Lancaster. A public meeting will also be scheduled for Guildhall, VT. The project is in its early stages.

Lee Carbonneau of Normandeau Associates, Inc. described the natural resource surveys and findings to date. Wetlands were delineated in the summer of 2012. There is one wetland approximately 50 feet off Route 2 in Lancaster in a farm field. There are several wetlands in Vermont adjacent to Route 102/2. Those on the west side of the road may be contiguous to Class 2 wetlands and therefore "Significant" under VT wetland rules. A 50-ft buffer applies to Class 2 wetlands. Further coordination with the Vermont Agency of Natural Resources will be necessary.

The ordinary high water mark of the Connecticut River was also delineated, and is similar to the top of bank in most locations. The Connecticut River is 6th order, so the Shoreland Water Quality Protection Act applies. The river in this location is impaired for Aluminum and E-Coli. There is a boat access ramp on the

NH side of the river south of the bridge. The project is within the 100-year floodplain of the Connecticut River.

The NH Natural Heritage Bureau reports that the project area includes records for the federally endangered dwarf wedge mussel (*Alasmidonta heterodon*) and also the riverine clubtail (*Stylurus amnicola*), a NH state species of Special Concern. VT has mapped a rare species in the field west of Route 2, but the species is not yet known, and further coordination is required. The New Hampshire side of the river is mapped as Highest Ranked Habitat in NH in the Wildlife Action Plan.

There are no LWCF properties or conservation lands that would be affected by the project, and the dominant soils are excessively drained Sunday loamy fine sand, which is not listed as prime farmland. One underground storage tank is known to be east of the project area at Munces Konvenience.

Richard Roach asked if the larval or adult stage of the clubtail is in the project area, and L. Carbonneau responded that both are in the project area, but that the larval phase is a benthic macroinvertebrate and could be the primary issue for in-channel work.

Carol Henderson pointed out that this reach of the Connecticut River is a hot spot for dwarf wedge mussel. She asked how far upstream a new bridge would be located, and whether the old bridge would be left in place. S. James responded that a new bridge would be located as close as possible to the existing bridge, and likely within 200 feet of it. There was a brief discussion regarding the practice of leaving old bridges in place next to new ones, but S. James indicated that this bridge would not likely be left if a new one is constructed. C. Henderson noted that the Connecticut River is a Designated River and the Local River Advisory committee should be contacted.

Jamie Sikora asked about the condition of the piers and abutments, and Sean noted that the abutments do require rehabilitation, and the piers may need work also.

Rich Roach asked to see the 100-year floodplain identified on the plans.

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

Salem-Manchester, 10418H, A000(712) – *Late addition to agenda*

Marc Laurin presented a letter from the Windham Conservation Commission recommending that rather than the DOT providing an in-lieu fee contribution of $288,500 to the ARM fund, this amount would be better suited for the Windham Conservation Commission's Land Fund in order to assist in the purchase and conservation of the Campbell Farm (a ±64 acre parcel) in Windham. Resource maps of the site were distributed. This parcel consists of open farm fields, forested uplands, over 5,100 feet of shoreline along Beaver Brook, as well as associated floodplain wetlands. The farm is historic, having been in existence since 1733, and has been identified in the Town's Open Space Plan as having the highest protection priority. The Town has $500,000 slated to the purchase of this property, and with the additional mitigation monies the Commission feels that the property could be purchased.

Rich Roach and Carol Henderson thought that it may be an appropriate mitigation option as it would preserve a long area of shoreline along Beaver Brook, could have some water quality benefits by preventing development, and by preserving pervious lands, flood absorption and farmlands. They both deferred to DES on the appropriateness of the mitigation versus the DOT providing money to the ARM Fund. R. Roach thought that the property would meet the Corps Preservation mitigation ratios. Both C. Henderson and R. Roach stated that if this change were to be made, the NHDOT would need to hold an executory interest in the property, that access to the site by the general public would not be restricted, and that the

historic nature of the site would not be compromised. M. Laurin will further coordinate with DES and the Windham Conservation Commission on the appropriateness of this proposal.

This project was previously reviewed on the following dates: 2/17/2010; 7/21/2010, 6/20/2012, 08/15/2012.