

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: April 15th 2015

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Matt Urban
Ron Crickard
Marc Laurin
Andrew Benton
Mark Hemmerlein
Anthony Weatherbee
Ralph Sanders
Rebecca Martin
Jason Tremblay
Jim Kirouac
Leah Savage
Kirk Mudgett

Peter Stamnas
Dan Prehemo

ACOE

Michael Hicks

FHWA

Jamie Sikora

EPA

Mark Kern

NHDES

Gino Infascelli

Lori Sommer
Chris Williams

NH Fish & Game

Carol Henderson

Stantec

Timothy Adams
Jerry Fortin

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:

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NOTES ON CONFERENCE:**Finalization of March 18th 2015 Meeting Minutes**

The March 18th 2015 meeting minutes were finalized. Gino Infascelli indicated that he had emailed some comments just before coming to the meeting. Matt Urban was going to incorporate those changes into the final minutes.

Rye, Non-Federal, 2015-M610-2

Tim Mallett, NH DOT Hydraulics Engineer opened the meeting informing the attendees that survey data was obtained to determine if the capacity of the 30" RCP culvert will be reduced by lining with ½" thick liner. T. Mallett indicated that the bell inlet will improve capacity. T. Mallett also showed Coastal Viewer Data to the group revealing that sediment at then inlet of the structure had been present for a long time. He indicated that abutting property owners have verified that.

The existing 30" RCP culvert is very old with deterioration at the inlet and outlet of the culvert. The middle of the culvert appears to be in stable condition. The outlet pad will be placed at the new outlet location which will be shortened by 65 linear feet. Carol Henderson of NH F&G asked what the purpose of the pad was. T. Mallett explained to reinforce the outlet structure. T. Mallett also commented that barnacles will most likely reattach to the new liner and that the existing 30" culvert will have to be jetted before new liner is installed.

Mike Hicks of ACOE asked how thick the liner would be. T. Mallett informed him ½" for a total of 1" reduction in size. T. Mallett added that there is a pressurized sewer line that is of concern and that water will have to be pumped during construction of the liner.

M. Hicks asked if new riprap will placed anywhere. Ralph Sanders explained that the riprap that covers the culvert on the ocean side will be removed/spread over existing rip-rap when the 65 linear feet of pipe is removed.

R. Sanders further explained to the group that a nearby home owner was subjected to flooding when the culvert became plugged with seaweed and other debris.

Lori Sommer, NH DES asked if we plan to remove sediment at the inlet of the structure. Matt Urban informed Lori that we only show temporary impacts to facilitate the proposed work and that DOT could show permanent impacts if the Resource Agency want the sediment removed as long as there is no mitigation required. At this time the sediment at the inlet is not an issue and the Department did not plan to remove it. The group said it was ok to leave it as is.

Chris Williams, NH DES asked if there will be a change in the elevation of the culvert by shortening the length. Tim Mallett said there will not be a change.

Carol Henderson asked about a decrease in salts from the alteration of the culvert. No change in salt concentration.

Chris Williams commented there is not a concern for the reduction in size of the culvert.

Gino Infascelli and Lori Sommer told the group that mitigation is not required.

This project has been previously discussed at a Monthly Natural Resource Agency Coordination Meeting on the following dates: 2/18/15

Chester, Non-Federal, 29696

Tony Weatherbee provided an overview of the project. The scope of the project is to rehab the concrete slab bridge that carries NH Route 121 over Wilson Brook. The structure has a 13'-0" span and a 31'-9" width. The proposed project is to replace the concrete slab and install riprap.

Gino Infascelli said that this bridge is located within a ¼ mile of the Exeter River corridor.

Lori Sommer said that no mitigation would be required.

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

Warren, Non-Federal, 23420

Tony Weatherbee provided an overview of the project. The scope of the project is to replace the existing metal pipe that carries NH Route 25C over Black Brook. The existing pipe is a 10'-8" x 6'-11" structural plate pipe-arch. The proposed structure is a 12' x 8' concrete box. Baffles that are 18" wide will be installed in each box section to hold in place a stone shelf.

Carol Henderson asked if the shelf would be flat and T. Weatherbee said yes.

T. Weatherbee stated that he thought the shelf was going to be installed in lieu of paying mitigation. Gino Infascelli said that he thought the shelf and mitigation would both be required. Lori Sommer said that the impacts would need to be calculated and weighed against some credit for installing the stone shelf and for making the span larger. Matt Urban and Lori Sommer will coordinate the amount. C. Henderson asked how the site would be restored. Replacing and/or salvaging the plants that are removed was discussed as desirable and would reduce mitigation costs. M. Urban said that Bureau 16 and 26 will discuss restoring the site and calculating impacts.

Gino Infascelli said it would be good to use the pebble count in determining an adequate riprap size.

This project has been previously discussed at the 01/15/14 and 04/16/14 Monthly Natural Resource Agency Coordination Meetings.

Piermont, Non-Federal, 40322

Tony Weatherbee provided an overview of the project. The scope of the project is to rehab the existing concrete arch bridge that carries NH Route 10 over Eastman Brook. The existing structure has a 30'-0" span and a 49'-3" deck width. This project proposes to install toewalls on the abutments and wingwalls to repair an undermined condition.

Mike Hicks asked if mussels have been spotted in the project location, as the project is just over a ¼ mile from the Connecticut River. Carol Henderson said we are waiting for the NHB Report.

Gino Infascelli said that a downstream abutter has had numerous permits and they are all minimum impact, so mussels are unlikely here.

Lori Sommer said that no mitigation would be required.

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

Raymond, Non-Federal, 29762

Tony Weatherbee provided an overview of the project. The scope of the project is to rehab the bridge that carries NH Rte. 107 over the Lamprey River (146/100). The existing structure is an IB-C that has a 94'-0" length and 65'-4" deck width. Proposed work consists of repairing the undermining at the north abutment by installing a concrete toewall. Temporary scaffolding will be installed to provide access to the bridge bearings so they can be repaired.

Carol Henderson asked if cofferdams will be used. Tony Weatherbee said that they are shown on the plans and permit but they will likely not be used.

C. Henderson asked what time of the year this project would be done. T. Weatherbee said the project would be done in the spring time of 2016. C.Henderson said that April and May could be a concern for Herring.

Lori Sommer said that no mitigation would be required.

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

Gilford, X-A003, 16279

Leah Savage provided an overview of the project. The existing 9' span x 6' rise x 28' long concrete box culvert was originally constructed in 1930 with no substantial improvements being done since. It is also on the state's red list. The culvert connects West Alton Brook under NH Route 11A and is a Tier 3 Stream. The culvert is part of a 1.58sq mile watershed and is located within prime wetlands. There is no history of flooding at this location or at the downstream structures. The project area consists of steep embankments and a narrow roadway with closely located adjacent drives at both the inlet and outlet which have been problematic for maintenance.

According to the NHDES Stream Crossing Rules (Env-Wt 904.05) the recommended crossing would be a 16-foot span 3 sided structure with a natural stream bottom. This option was explored, however due to the high cost and constructability issues other alternative designs were considered. Multiple designs were looked at conceptually for this site, rehabilitation options as well as replacements. Through hydraulic analysis it was determined that a 12' span x 8' rise culvert with 2' embedment was the minimum size needed to meet hydraulic capacity for the 100 year storm. This sized structure was looked at along two different alignments, one alignment follows the existing culvert whereas the second alignment is skewed to bring the stream back to a more natural alignment. To more closely match the stream crossing recommendation a 16' span x 8' rise culvert with 2' embedment was also considered placed along the two alignments.

Gerard Fortin went on to discuss the specifics of the considered alternatives. Alternative 2 a 12' span x 8' rise with 2' of embedment placed along the skewed alignment. This would be considered as an alternative design. G. Fortin went on to discuss Alternative 5B, a 16' span x 8' rise with 2' embedment x 43' long precast box. This design was built to accommodate guardrail installation. The design meets the 16' span stream crossing recommendation, and mimics the natural bottom by placing 2' of embedded material in the pipe by utilizing baffles to more effectively hold in the material. This alternative is one of the lower cost alternatives and limits the area of wetland impacts. This design shifts the alignment to more naturally match the stream channel.

G. Fortin went on to explain constructability of this culvert. It will be constructed by utilizing alternating one way traffic. The first phase shifts traffic to the north while building the southern half. The second phase then shifts the traffic south while constructing the northern portion.

Total permanent prime wetland impacts total 2,325 sf with 75 sf of temporary wetland impacts. G. Fortin noted that the prime wetland delineation includes the prime wetland being located over the existing roadway.

Mike Hicks questioned if there would be impacts to the 100 year flood plain. G. Fortin responded that this design will improve the history of flooding. M. Hicks followed up, asking if there would be any new fill to accommodate for loss of flood storage. G. Fortin responded that this would be addressed, but we believe that it all will balance out. M. Hicks then inquired as to how flow would be maintained throughout construction. G. Fortin explained that a temporary 42" bypass pipe would be constructed for this purpose.

Carol Henderson inquired as to the time of year the project would be constructed. G. Fortin said he anticipates construction to take place in late summer, low flow times. C. Henderson went on to express concerns about construction taking place in Spring as this stream may qualify as a smelt stream. C. Henderson asked when the anticipated Advertising date for this project would be. Jim Kirouac responded that at this time the project Ad Date was anticipated to be in Spring 2016.

C. Henderson inquired on the purpose of the baffles. G. Fortin explained they were there to hold material in the box to replicate the natural stream bottom. The baffles themselves will not be exposed. Hydraulic analysis was used to make the determination to include these baffles. C. Henderson noted that while not mentioned on the NHB document, this area is potentially a prime location for wood turtles. C. Henderson asked if the pipe would match the existing culvert grade. G. Fortin explained that the proposed culvert's vertical profile would actually improve flow through the pipe by eliminating the existing drop/perch of the existing culvert.

Gino Infascelli inquired if anything would be done to accommodate and stabilize the drainage coming down the hill. G. Fortin said that a swale could be constructed to accommodate this. G. Infascelli also suggested having the prime wetlands re-delineated and to have the prime wetlands corrected on the plans when submitting the wetland application.

Lori Sommer inquired if invasive species were present in the project area. G. Fortin explained that none had been noted on previous site visits. The most recent site visit being noted as Summer 2014.

Matt Urban and L. Sommer talked about the need to consider permanent length impacts to bank with the potential to consider mitigation credits for restoring new banks with salvaged plantings, etc.

M. Urban asked if everyone was in a consensus of being okay with the sizing, embedment, and proposed alignment of the proposed culvert, Alternative 5B. All responded yes.

G. Infascelli ended by noting to minimize tree cutting as to not open up the project area too much. G. Fortin responded by stating we would restore the area to the original condition when the project was complete.

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

Canterbury, Non-Federal, 40178

Kirk Mudgett provided an overview of the project. The project includes reconstruction of the State owned portion of Intervale Road in Canterbury to resolve ongoing issues with maintenance of the gravel roadway and to improve the road condition in preparation for turning over the road section to the Town of Canterbury. The Town of is willing to take over maintenance of the road section, if NHDOT paves the section. The road reconstruction will consist of placing 12” of crushed gravel and 3” of pavement over of the approximately 0.5 mile State owned gravel section to match the portions to the north and south. The paved section would be 20 feet wide. The intention is to match the existing roadway when possible, but in some areas to achieve the 20 feet width, the road will need to be widened, necessitating cutting into banks. The project will include replacement of 3 existing metal culverts and addition of one new culvert. K. Mudgett shared the current project plans and photos taken during the winter.

There is a natural spring that comes out of the embankment adjacent to the roadway; the water from this spring flows in the road ditch for approximately 1,000 feet. The preferred option for managing water from the spring that is currently causing the roadway to be saturated is to utilize underdrain to redirect the water that is impacting the roadway from the embankment. Matt Urban explained that there is perennial flow in the ditch. The underdrain would lead to a lack of flow in the stream/road ditch. Lori Sommer inquired if there is a defined channel. M. Urban explained that there is not. The question at hand is, would the impacts to the water flowing in the ditch by utilizing underdrain to move the water to the other side of the road be considered stream impact and, if so, would mitigation be required. K. Mudgett described concerns that without underdrain, any pavement placed would likely break up due to the water in the roadbed. K. Mudgett stated that the underdrain would be placed as close to the surface as it can safely be placed. There was discussion of underdrain and how clogging of the underdrain is prevented. North of this area there is a spring fed flow, but it crosses the roadway through an existing culvert.

The group discussed a stream on the southern side of the project area that has a well-defined channel that travels through an existing culvert that will be replaced. Carol Henderson inquired about culvert replacements. K. Mudgett explained that they will potentially be larger, but still within the confines of work that can be accomplished under the Routine Roadway Maintenance Activities Notification.

Gino Infascelli asked for a description of stream impacts from the project as proposed. M. Urban explained that the stream flowing through the ditch line would be impacted, but the stream on the southern side of the road will not be impacted.

M. Urban explained that there will be wetland impacts on the southern side of the road. Lori Sommer asked if these impacts will approach 10,000 square feet with addition of linear feet of impact to ditch line. K. Mudgett said likely not, later in email confirmed that if the project impacted the stream, the impact will be 2,300 square feet to the stream, and with additional permanent wetland project impacts will remain below the 10,000 square feet threshold for compensatory mitigation.

M. Urban asked if there were concerns about the impacts to the stream in the ditch. Lori Sommer indicated that there are not, but wanted affirmation that the project impacts would be less than 10,000 square feet. The group agreed that the project does not need to be brought back to another Natural Resource Agency meeting.

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

Keene-Swanzey, A000(485), 10309P

An update on the multi-use trail (MUT) bridge over NH 101 was presented. Jason Tremblay provided a quick overview of the wetland impacts. Impacts were minimized to about 20,500 square feet with the incorporation of 2:1 slopes in the design. A NH Wetland Permit application is anticipated to be submitted to DES in mid-May for this new permit for the MUT bridge impacts only. An in-lieu fee payment to the ARM fund, of approximately \$80,000, is proposed as mitigation for these specific impacts. There will be minor fill within the floodplain of the Ashuelot River.

Mike Hicks feels this project will qualify for an SPGP, however he asked if DOT has coordinated on the floodplain fill with the Corps contact he provided recently. Marc Laurin responded that Ron Grandmaison will be doing this coordination effort. M. Laurin brought up the outstanding mitigation commitments for the impacts already incurred and proposed to be incurred for the overall Keene-Swanzey interim projects. At the last discussion of the project, Lori Sommer had stated that the permit for the MUT will be conditioned to memorialize the outstanding mitigation commitments. L. Sommer asked if DOT had discussed with the City to get their opinion on appropriate mitigation. M. Laurin replied that Ron Grandmaison is also coordinating this effort. L. Sommer will further evaluate the commitments of the MUT bridge permit with additional coordination and input from DOT.

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

This meeting was to clarify and discuss the mitigation aspects for the new permit for the Northern Contracts, which complete the rehabilitation and widening of I-93. Peter Stamnas stated that the CTAP funds will not be repurposed. The approximate \$1.4M left in the program will remain for future use by the CTAP program. P. Stamnas is the manager of the funds with assistance from Glenn Davidson and Bill Watson of the Department's Planning and Community Assistance Bureau. This program provides for input from DES and OEP, and the Department is working with the RCPs to perform a more active future role in proposing expenditures of these funds. Lori Sommer and Mark Kern expressed concern that communities were interested in shifting the funding for economic development rather than for preservation purposes and planning for growth

as intended. P. Stamnas replied that DOT will coordinate with the RCPs to reach out to the communities with a focus on the original outlined Phase III strategies.

Regarding the Londonderry Conservation Commission letter proposing the DOT provide additional preservation rather than ARM fund payment, P. Stamnas has reached out to the Town Manager to discuss the Town's wishes and anticipates a response next week. There are issues that would need to be addressed with further acquisition of land. The Department does not have condemnation rights, the property would need to be appraised, and consequently there is little leverage if the selling price is not the same as that asked for by the owner. The ARM fund payment is preferable to the Department. Additionally, the Department feels that the mitigation provided does compensate for the impacts as there is creation of wetlands, as well as preservation in Londonderry.

M. Kern stated that he prefers the ARM fund process as it will allow all communities to have opportunities to get funding to assist them in controlling sprawl and provides opportunities to jump-start priority projects for the communities.

L. Sommer asked if there was flexibility in the CTAP funding, if effectively used, the Town of Londonderry could have the opportunity to use these funds for restoration and management plan for New England Cottontail habitat.

Jamie Sikora stated that review of the original intent of Phase III of CTAP will need to be done, but this use of funding may be appropriate.

M. Kern inquired as to the ARM fund disbursement. P. Stamnas stated that they will be included in the first northern construction contract to be advertised in August 2015. The funds should be available a couple months after that with the G & C approval and award of the contract.

L. Sommer will provide outreach to the communities in November to discuss the Stream Passage Improvement Program and how the communities would apply for funds in 2016. Culverts have been and will be prioritized by DES, if assessments still need to be finalized, through SADES, the program may need to be postponed for a year.