BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: October 15, 2014
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Christine Perron
Ron Crickard
Marc Laurin
Matt Urban
Mike Dugas
Bob Davis
Jim Kirouac
Linda Schoffield
Meli Dube
Corey Spetelunas
Mark Hemmerlein
Jon Hebert
Dustan Eurieck
Tony Weatherbee
Carol Niewola
Victoria Chase
John Butler

Army Corps of Engineers
Michael Hicks

EPA
Mark Kern

NHDES Wetlands Bureau
Gino Infascelli
Lori Sommer

NH Fish & Game
Carol Henderson

NH Natural Heritage Bureau
Melissa Coppola

NHDES Watershed Assistance Section
Steve Landry

Federal Aviation Administration
Richard Doucette

Hoyle, Tanner & Assoc
Audrey Beaulac
Jason Ayotte

City of Lebanon
Rick Dyment

McFarland Johnson
Vicki Chase
Jed Merrow
Mitch Pac

Town of Bedford
Jeff Foote

Bedford Land Trust
Rita Carroll

New Hampshire Rivers Council
Michele L. Tremblay*

**via conference call*

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

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:
(minutes on subsequent pages)

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

NOTES ON CONFERENCE:

Finalization of September Meeting Minutes

The September 17, 2014 meeting minutes were finalized.

Franklin, X-A000(737), 13928A

Corey Spetelunas gave an overview of the project and summarized previous Natural Resource Agency Coordination Meetings. The purpose of this project is to increase safety for the traveling public on US Route 3 in Franklin by upgrading the roadway, widening the shoulders and improving the intersection with Industrial Park Drive by adding a southbound right turn lane and improving sight distances for the heavy truck traffic at this location.

C. Spetelunas indicated that the project has changed slightly to include impacts to the historic rail trail adjacent to US Route 3 at two locations for the purpose of repairing/replacing drainage structures. These impacts have been reviewed by the NHDOT's Cultural Resources Program and Contamination Programs. All soils excavated as a result of these impacts shall remain within the rail trail footprint.

C. Spetelunas gave an overview of the proposed wetland impacts. Area 1 involves filling a man-made drainage ditch as a result of widening the roadway and moving the ditch slightly. Area 2 involves replacing a 24" corrugated metal pipe, headwall repair, and stabilization at the outlet of a culvert that currently carries stormwater from closed drainage systems and multiple other unknown sources. Gino Infascelli asked if this is a perennial stream and if work will need to meet the stream crossing rules. Meli Dube replied that the 24" pipe carries a perennial stream. Area 3 involves impacts to a manmade drainage ditch due to the sliplining of an existing 36" corrugated metal pipe with a 30" plastic pipe as well as the installation of an underdrain outlet. G. Infascelli requested that the application package clarify stream and wetland classification, the need for addressing stream crossing rules, and overall impacts, as these issues were unclear in the presentation.

C. Spetelunas indicated an erosion control plan has not yet been created and that the wetland impacts may change slightly due to potential temporary impacts associated with erosion control measures. The permanent impact to wetlands is anticipated to be approximately 2,700 square feet.

C. Spetelunas gave a brief description of the drainage improvements and repair at two locations that have previously failed and caused large slope failures. The input to these areas will be diverted to a new location that is shallower and more stable.

Lori Sommer agreed that all work is for the maintenance of existing infrastructure and mitigation would not be required.

This project was previously reviewed on the following dates: 2/18/2004, 12/17/2008, 6/15/2011.

Dummer, X-A003(835), 16304A

Mike Dugas provided background on the project. The project is located on NH Route 16, beginning just north of NH Route 110A and proceeding approximately 1.3 miles north. As previously discussed at a Natural Resource Agency meeting, five segments along a 10-mile section of NH 16 have been identified as priorities through coordination with NHDOT Maintenance District 1. The Department is evaluating each segment to determine what can be designed and constructed with the limited funding that is available. The 16304A project has been identified as the first priority.

Jon Hebert provided an overview of the project. This section of NH Route 16 is in poor condition, and there have been previous slope failures in this general area in the recent past. The project is adjacent to the Androscoggin River. Currently, the Department is studying three design alternatives: reconstruct the roadway on the same alignment; shift the road 12' away from the river; and shift the road 25' away from the river. In order to reconstruct the roadway and get the road above the water table, the road needs to be at least a couple of feet higher, which necessitates widening the slopes. For this reason, reconstructing the roadway on the same alignment is undesirable since the widened slopes would extend into the river. If the alignment is shifted over 12', matching the slope in near the river is possible without extensive impacts but some locations would be challenging. If the alignment is shifted 25', the roadway slope would be well outside the river.

In addition to the river along the east side of the road, there are numerous wetlands to the west of the road. A 12' shift in alignment would result in approximately 2.5 acres of wetland impact. A 25' shift would result in 5 acres of impact.

A Public Informational Meeting is anticipated for this project. The only landowner in the project area is Bayroot LLC, and the land is protected with a Conservation Easement held by the 13 Mile Woods Association. If the landowner is agreeable to proposed impacts, then a Public Hearing would not be necessary.

Mark Kern asked if the wetlands provided habitat for any known rare species. Melissa Coppola replied that Natural Heritage Bureau database contains records of osprey and northern harrier in the project area, as well as an exemplary natural community outside the project area. Christine Perron added that the wetlands were delineated by Stoney Ridge Environmental and no rare plant species were identified. M. Kern noted that, since the wetlands were not known to contain rare species, moving the road away from the river would be an ecological benefit and he would not be opposed to either alternative.

M. Dugas commented on the need to look at water quality requirements and if requirements would be more stringent for the alternative with greater wetland impacts. Mark Hemmerlein responded that the 25' shift would require a Water Quality Certificate since an Individual Permit from the Army Corps would be required. He further noted that the 25' shift would provide more area to provide stormwater treatment.

Lori Sommer said that the Department would need to contact conservation groups in that area to determine if there are any mitigation opportunities. Also, the value of the impacted conservation land would need to be assessed and a land swap would be necessary. She was aware of potential projects that NH Fish & Game and US Fish & Wildlife Service are working on and will call these agencies to discuss potential mitigation.

Matt Urban asked if there could be any mitigation credit for moving the road away from the river and increasing the buffer. M. Coppola asked if this buffer could be floodplain forest. C. Perron responded that the Department could likely plants some shrubs and other vegetation in this area, but much of the area may be required for stormwater treatment and would not be floodplain forest. Gino Infascelli noted that there are some upland pockets located on the west side of the road that could be investigated for stormwater treatment. M. Dugas agreed that this could be investigated.

Carol Henderson commented that there would likely need to be time of year restrictions during construction to avoid impacting nesting osprey. Coordination on this issue will continue as the project moves forward with a preferred alternative.

Lori Sommer noted that stormwater treatment areas may be an attractant to moose, something that the Department should keep in mind when siting and designing treatment. She also asked if guardrail would be installed. J. Hebert replied that there is no guardrail currently and none is proposed.

M. Kern asked about the project schedule. M. Dugas replied that the anticipated advertising date would be late 2015 or early 2016.

C. Henderson asked the Department to consider incorporating pull-off areas for fishing access.

The project will be reviewed at a future meeting once a preferred alternative is selected and proposed wetland impacts are refined.

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

Conway, X-A003(982), 29256

This project includes rehabilitating 4.7 miles of US Route 302 beginning at its intersection with NH Route 113 and ending at the NH/ME state line in Conway, NH. The project is scoped to rehabilitate the roadway and replace in-kind drainage, guardrail, and other incidental construction. The roadway footprint will not change. Advertisement is anticipated in January 2015 with a programmed estimate of $6 million.

Hoyle, Tanner provided a project overview with plans and pictures summarizing the proposed conditions and identifying the wetland and shoreland impacts for the different proposed work sections. Within the wetland areas, there are no culvert replacements being considered. The repairs proposed consist of realigning separated culvert joints outside of the pavement limits, as well as replacing and repointing headwalls. In addition, locations of pavement rehabilitation and overlay were presented to identify work proposed within the shoreland buffers. Based on the areas identified, the wetland impacts are estimated at approximately 1,550 sq. ft. and shoreland impacts at approximately 45,000 sq. ft.

Following the presentation, it was asked and clarified that all the impacts shown qualify for a Routine Roadway and Railway Maintenance Notification.

No concerns were raised with the project as proposed.

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

North Hampton, non-federal, 16060

Bob Davis provided an overview of the project. The project will address a failing 72" corrugated metal pipe that carries the Winnicut River under Walnut Avenue. The project is in the early stages of design. Maintenance crews have had to complete repairs at this location a number of times. The pipe currently has no bottom due to deterioration. The end of the pipe has dropped approximately 2 to 3 feet, creating a sinkhole that the District has covered with steel plates. The road requires patching almost every year and there is recurring erosion at the inlet. The pipe is located on the regulatory floodway of the Winnicut River. There is no history of flooding at this location. Right-of-way information is currently being sought to determine if the ends of the pipe are within existing right-of-way. Prior to 1973, the river was carried under the road by a stone crossing that was located to the east of the existing culvert.

Christine Perron summarized environmental resources known to date. The culvert is a Tier 3 stream crossing under the NHDES Stream Crossing Rules, with a watershed of 4.8 sq. miles. A full stream assessment cannot be completed due to the depth and breadth of open water at the inlet. The estimated bankfull width is 27'. NHDES has identified E. coli, dissolved oxygen, and benthic macroinvertebrates as surface water impairments. Invasive plants are prolific at the inlet and outlet of the culvert and will be addressed appropriately during construction. The property in the northeast quadrant is protected by a conservation easement. The NH Natural Heritage Bureau reported that marsh wren has been documented to the north of the project; no other rare species are known to occur.

B. Davis noted that design alternatives are still being refined. Based on geotechnical borings, the existing soils at this location could limit the feasible alternatives. Additionally, the roadway is narrow, consisting of two 12-foot travel lanes and 1-2 foot shoulders; the culvert is under only 3 feet of fill; and utility lines are located over the inlet. All of these factors will be taken into consideration during the alternatives analysis. A 6' x 6' or 6' x 7' structure, which would pass the 50-year storm, is one alternative being considered. The project currently has an advertising date of March 17, 2014. At this time, the Department is seeking input on potential concerns before the project progresses.

Carol Henderson commented that the Winnicut River is very important to NH Fish & Game and has been the focus of many improvements. Wild trout are located downstream of the project and eels use the tributaries. She recommended that the proposed structure accommodate aquatic organism passage.

Lori Sommer asked what type of structure was being considered. B. Davis replied that it could be a rectangular structure but this was still being evaluated. He added that potential downstream restrictions need to be evaluated, including two pipes under Lovering Road, to determine how much larger the Walnut Avenue crossing could be without causing issues downstream.

Gino Infascelli asked if lining was still under consideration, since it was mentioned in the agenda. B. Davis clarified that lining the pipe is no longer an option due to its deterioration.

C. Henderson asked if the area was influenced by beaver activity. B. Davis said that it was, and that a beaver deceiver type structure may be considered to facilitate future maintenance.

Mark Kern noted that it would be helpful to see a comparison of alternatives at a future meeting. B. Davis agreed that this would be the next step.

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

Benton, non-federal, 29703

Tony Weatherbee provided an overview of the project. The scope of the project is to rehabilitate the bridge that carries NH Route 116 over Waterman Brook (Bridge 063/179). Proposed work consists of placing a concrete invert in the existing metal pipe, installing riprap, and building a fish weir. This is a Tier 2 stream crossing according to the NHDES Stream Crossing Rules. The proposed work will take place in the winter. Sandbag cofferdams and a diversion pipe will be used to dewater the work zone.

Carol Henderson asked if the intent of the project was to increase the service life of the pipe. T. Weatherbee said that as the bottom of the pipe rusts out, the top is usually still fine; the concrete invert provides strength for the bottom, which does increase the service life. C. Henderson said to work with John Magee on the fish weir.

Matt Urban asked if the weir is the only downstream permanent impact. Tony said that the cutoff walls may also need to be addressed and those will require 5' of riprap for stabilization. M. Urban said that similar projects have not required mitigation. Gino Infascelli said that the project would be considered 'self-mitigating' and that the weir should be monitored to assess its efficacy.

T. Weatherbee asked if a new permit would be necessary to fix the weir should the weir get destroyed at some time in the future. G. Infascelli said that work could be done under the existing permit if the permit is still active, but that he should be notified.

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

Lebanon Municipal Airport, 3-33-0010-47-2012

This project involves the removal of obstructions south of Runway 25. The purpose of the discussion was to review the mitigation obligation for the project and to explain why the project has been delayed.

Richard Doucette (FAA) explained that FAA recognizes the importance of tree clearing in having safe airspace at airports. FAA's position on the extent of tree clearing required is evolving as they determine what is practicable and reasonable for each airport. Other tree clearing projects funded by FAA that do not involve dredge and fill in wetlands generally do not require permitting.

Vicki Chase explained that the proposed project has been delayed because bids for the proposed construction of detention basin enlargement required for the project and for the adjacent FEMA-funded storm repair work came in much higher than had been estimated. The project will be rebid in the spring of 2015, and the tree clearing will occur in the winter 2015-2016. Because of the delay, the Airport would like to review the proposed mitigation, in order to clarify the mitigation ratios that are used in the mitigation calculation.

The existing resources were reviewed. The hillside that is proposed to be cleared includes six small (ephemeral or intermittent) streams of moderate value. Previously, the mitigation obligation was calculated at 2.00 acres, but has been revised to 1.52 acres (See Table 1). The in-lieu fee is proposed to be reduced from $368,745.73 to $260,182.75. This includes eliminating the additional stream channel mitigation calculation included in the in-lieu fee spreadsheet, as stream impacts were already included as direct impacts in the in-lieu fee calculation.

At a previous meeting, a 34-acre parcel proposed for mitigation was presented. Following the meeting, it was suggested that the 34-acre parcel may not meet the federal requirements for preservation, and it was suggested that the parcel plus half of the calculated in-lieu fee would be appropriate. This would require preserving the 34-acre parcel (Lot 26-7) and either making a supplemental in-lieu fee payment of $130,091 (as currently proposed) or finding additional appropriate preservation.

Mark Kern expressed concern with how the mitigation was being calculated, and, in particular, with the discrepancy between upland and wetland stream buffer ratios (2% for upland buffers, 15% for all wetland tree clearing). He suggested he could discuss the proposed mitigation for the project with Ruth Ladd and Paul Minkin from the Army Corps, because they wrote both the existing 2010 and draft revised New England mitigation guidance. M. Kern suggested that the width of the proposed upland buffer could perhaps be reduced, rather than using a 2% multiplier. He further noted that the proposed draft guidance would go through other iterations before it became final, and thought it would make more sense to have the upland and wetland percentages be the same, but would defer to P. Minkin and R. Ladd for a final determination.

Mike Hicks commented that perhaps the tree clearing and the road had independent utility (and would therefore not be "associated") but that he had not been involved in the project at the outset, so had not been available to comment.

R. Doucette commented that removing the fence from the project had been considered, but FAA was not trying to skirt around the mitigation obligation of secondary impacts. He further commented that as long as the work was done properly, there should be no impacts to water quality in the intermittent streams. Vegetation will be a mixture of meadow and shrub vegetation after the tree cutting is completed, and will be maintained on an annual basis by hand in the wetlands and by mechanized means in the uplands. Neither uplands nor wetlands will be grubbed; instead, stumps will be ground to be level with the soil surface. In uplands, the ground may be lightly graded to smooth the surface and make future maintenance easier.

As currently proposed by the Airport, the project would require an in-lieu fee of $260,182.75, or a preservation parcel measuring 23 acres, for 1.52 acres of impact (using a ratio of 15:1).

Gino Infascelli expressed concern about tree cutting in the needle leaved wetlands, and commented that seeding in these areas would probably be necessary because of the lack of understory. On the other hand, at the west end of the airport it did not seem that seeding would be required because of a thicker understory and because there was less of a slope. R. Doucette asked for guidance on which areas could be seeded so that requirement could be added to construction documents.

M. Kern commented that another project with a large number of stream crossings (PSNH) had assigned different stream buffer widths depending on the size of the streams. Perhaps this approach would be preferable to the formulas presented at the meeting.

M. Hicks noted that he had not received any comments from the public on the project, and that he was inclined to process the permit as a general permit rather than as an individual permit, which was how it had been submitted as originally requested by ACOE. M. Hicks and M. Kern suggested that given the specifics of this site that a reasonable in-lieu fee would be <u>what</u> had been calculated, rather than <u>how</u> it had been calculated using the formula. It was agreed that if the mitigation were to stay at the preservation of Parcel 26-7 plus $130,091, then there would be no need to return to the resource agencies. However, if another parcel were proposed, they would like an opportunity to review it. R. Doucette commented that whatever method was used for determining mitigation, it should be repeatable and defensible to others at FAA.

Table 1 Lebanon Airport Obstruction Removal Wetland Mitigation Obligation

Impact	Acreage	NE Guidance Range of Ratios	Originally Proposed Ratio	Mitigation Obligation Acres	Rationale State Law	Rationale Federal Law	Considerations	*Revised Proposed Ratio*	*Revised Obligation Acres*
Dredge and Fill (Permanent)	0.38	100%	100%	0.38	Env-Wt 302.03	40 CFR 230.93 33 CFR 332		*100%*	*0.38*
Wetland Tree Clearing	3.15	15-40%	10%	0.31	none	40 CFR 230.11(h) says that Secondary effects associated with a discharge should be considered. NE District Mitigation Guidance	• Is tree clearing "associated" with direct wetland impacts? • No ground disturbance so lower ratio was used.	*15%*	*0.47*
Wetland Tree Clearing <100' from Streams	3.34	15-40%	15%	0.50	none	NE District Mitigation Guidance	• Association with direct impact? • No ground disturbance so lower ratio was used.	*15%*	*0.50*
Upland Tree Clearing <100' from Streams	8.01	"Project Specific"	10%	0.80	none	NE District Mitigation Guidance - 10% requested by EPA	• Association with direct impact? • Proposed revised guidelines would provide for much smaller multiplier. (no stump removal, moderate quality streams)	*2%*	*0.16*
TOTAL MITIGATION OBLIGATION				**2.00**					***1.52***

Table 2 Lebanon Airport Obstruction Removal In-Lieu Fee Calculation

	Previously Calculated In-Lieu Fee	Rationale State Law	Rationale Federal Law	Considerations	*Revised In-Lieu Fee*
Total calculated in-lieu fee	$342,345.73	Env-Wt 803.04	40 CFR 230.93	• Env-Wt 803.03 provides for in-lieu fee for direct wetland impacts, not for upland impacts, and not specifically for secondary impacts.	*$260,182.75*
Additional in-lieu fee for 120' linear stream impacts	$26,400.00	none	none	• NHDES In-lieu fee spreadsheet includes additional fee for linear feet of stream impact - however direct impacts are already mitigated at 100%.	*$0.00*
Total calculated in-lieu fee	**$368,745.73**				***$260,182.75***

This project was previously reviewed on the following dates: 6/19/2013, 8/20/2014.

Bedford, X-A000(143), 13953

Vicki Chase presented the proposed restoration of a portion of McQuesten Brook in Bedford – the replacement of the Eastman Ave crossing, and the removal and restoration of the Wathen Road crossing. The New Hampshire Rivers Council commissioned a restoration plan for McQuesten Brook which

provides habitat for native brook trout. The two crossings proposed to be improved were identified as restrictions to aquatic organism passage. The plan includes the removal of an existing house and duck coop at the end of Wathen Road, and the removal of floodplain fill and pavement. The existing 36" culvert at Eastman Ave will be replaced with a 15 foot 3-sided box culvert with a natural streambed. The Wathen Road culvert will be removed entirely and the stream will be restored to a natural streambed. Anticipated benefits to the stream include improved aquatic organism passage, improved water quality, reduced sedimentation.

Mitch Pac presented the construction details of the proposed crossings. The Wathen Road crossing will be constructed with a log crib wall on the west side where the existing Wathen Road will be dead-ended, and a 4:1 slope on the far side where the existing floodplain fill will be removed.. The slope will be replanted with wetland tree and shrub species to provide shade for the restored channel.

Lori Sommer stated that she thought that DOT could potentially provide funding for this restoration effort as mitigation for the proposed wetland impacts from the NH Route 101 project in Bedford. Marc Laurin stated that if the resource agencies and Town feels that there is validity in using this restoration as mitigation for NH Route 101 wetland impacts then the DOT could consider this, however it would be a departure from the typical mitigation funding process and he was not sure how it could be carried out. Payments could not be made until the project is approved by the Governor & Council and construction funds are available. More investigations will need to be done by DOT to determine if this is reasonable or even possible from a procedural standpoint. Jeff Foote stated that the costs of the ultimate mitigation of McQuesten Brook have increased and the Town encourages the DOT to investigate a means to participate in funding some of the mitigation there. Mike Hicks will need to also discuss this with Ruth Ladd to see if this would be appropriate for the Corps permit. Mark Kern did not have a preference between this option and a normal ARM fund payment for mitigation of the NH Route 101 impacts.

M. Laurin stated that the proposed impacts to the Bedford Village Common and the Nault conservation properties will also need to be mitigated. DOT has been in consultation with the Bedford Land Trust, which holds the easements on these two conservation properties. Impacts to the Bedford Village Commons property are estimated at 0.5 acres and impacts on the Nault parcel are about 0.2 acres. Rita Carroll from the Bedford Land Trust has had some discussion with Terry Knowles of the Charitable Land Trust, who stated that these impacts could be handled through friendly condemnation. L. Sommer suggested that the value of the impacted conservation lands will need to be determined. R. Carroll informed the agencies of her discussions with the owners of property that abut Riddle Brook (open fields and forested areas) who seem to be agreeable to placing conservation easements on their property. All agreed that further coordination with the Charitable Land Trust will need occur to determine the appropriate amount of mitigation needed to compensate for impacts to the conservation parcels. R. Carroll stated that the compensation will be more for the recreational and aesthetic values of the impacted portion of the properties, but should provide some habitat value protection also.

This project was previously reviewed on the following dates: 9/18/2013, 3/19/2014, 6/18/2014.