

**Appendix L: Consideration of Woodmont  
Commons East Aquatic Resource Impacts and  
Mitigation for NEPA and Section 404 Permitting**

# Memorandum

DATE: August 22, 2018

TO: Project File

FROM: Louis Berger

**SUBJECT: I-93 Exit 4A, Derry-Londonderry, 13065  
Consideration of Woodmont Commons East Aquatic Resource  
Impacts and Mitigation for NEPA and Section 404 Permitting**

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## Summary

The purpose of this memo is to outline the framework for consideration of potential aquatic resource impacts and mitigation for the Woodmont Commons East development in the SDEIS and Section 404 permit application for I-93 Exit 4A.

The key conclusions of this memo are as follows:

1. NEPA requires disclosure of the potential impacts associated with Woodmont Commons East, in terms of land use change and the environmental impacts of the land use change. As discussed in the Exit 4A SDEIS Land Use Scenarios Technical Report, the Planned Unit Development (PUD) Master Plan for Woodmont Commons establishes by sub-area, including the sub-area corresponding to Woodmont Commons East, options for maximum amounts of development and minimum amounts of open space, i.e., allowable densities, permitted by the Town of Londonderry. Even though substantial uncertainty exists on the form future development may take, reasonable assumptions can be made to “bracket” the potential range of impacts. As outlined in the Land Use Scenarios Technical Report, Woodmont Commons East mixed-use development is considered an indirect effect of Exit 4A for the SDEIS (under the future No Build condition, development of the site at a lower density with single-family residences is anticipated). The cumulative impact analysis will consider the direct impacts of Exit 4A, the indirect effects of Exit 4A (including Woodmont Commons East), and other reasonably foreseeable actions by others affecting the condition of environmental resources.
2. NEPA requires disclosure of the *potential mitigation options* available to the developer to mitigate impacts of the Woodmont Commons East development. The mitigation discussion in the SDEIS will include the potential range of mitigation that may be required, the organizations/agencies responsible for the mitigation, and the likelihood of mitigation implementation. NEPA does not require the lead agencies for the Exit 4A SDEIS to *commit to implement* mitigation for impacts outside their direct control.

3. The Section 404 permit application and mitigation plan for the Exit 4A Project will not include the Woodmont Commons East development. The mitigation plan for the Exit 4A Project will address the direct impacts of the new interchange/connector roadway, including indirect impacts related to the placement of fill (such as habitat edge effects).
4. When a specific site plan proposal for Woodmont Commons East is available, the developer will need to obtain a separate Section 404 permit from USACE for unavoidable impacts to Waters of the U.S. As part of this separate permitting action, the developer will need to propose and obtain USACE approval of its own mitigation plan.

## **Background**

The I-93 Exit 4A Project is proposed by the Towns of Derry and Londonderry and the New Hampshire Department of Transportation (NHDOT) to reduce congestion and improve safety along NH 102, from I-93 easterly through Downtown Derry and to promote economic vitality in the Derry/Londonderry area. The project has been the subject of various studies since 1985, culminating in a Draft Environmental Impact Statement (DEIS) in 2007. In October 2015, the Governor's Advisory Commission on Intermodal Transportation directed NHDOT to accelerate the Exit 4A Project, and the Project was subsequently incorporated in the state's Ten Year Transportation Improvement Plan for 2017–2026.

The Towns and NHDOT, in cooperation with the Federal Highway Administration (FHWA), are currently preparing a Supplemental Draft Environmental Impact Statement (SDEIS) to provide an up-to-date assessment of the I-93 Exit 4A Project that considers changes in the design of the alternatives, changes in the existing environment, changes in environmental regulations, and other “significant new circumstances or information relevant to environmental concerns have a bearing on the proposed action or its impacts” (40 CFR 1502.9 (c)(1)).

The Preferred Alternative from the 2007 DEIS consists of a new diamond interchange on I-93 in the Town of Londonderry, approximately 1 mile north of Exit 4 (Alternative A). The new diamond interchange would only provide access to the east side of I-93. A 1-mile connector roadway would be built on new alignment from the interchange to Folsom Road, near the intersection of North High Street and Madden Road, in the Town of Derry. Folsom Road, and subsequently Tsienneto Road, would be upgraded, and the intersections would be improved. In total, the corridor from I-93 to the intersection of Tsienneto Road and NH Route 102/Chester Road would be 3.2 miles.

Consistent with the Exit 4A Project Purpose and Need to promote economic development in the area, direct access to 216 acres of undeveloped industrial-zoned land on the east side of I-93 that is part of the Woodmont Commons PUD Master Plan would be provided by one or two future intersections with the connector road. The location and configuration of these intersections would be determined by the Town as part of their site plan approval process. The Woodmont Commons PUD Master Plan was approved by the Town of Londonderry in 2013 and covers a total of 600

acres on both the east and west side of I-93. The first phase of development on the west side of I-93 received conditional site plan approval in 2016 (referred to as “Woodmont Commons Phase 1”). **Appendix A** shows the location of the Woodmont Commons East and West components in relation to the Exit 4A Project.

No specific development site plan has been proposed for Woodmont Commons East or “WC-12” as this area is referred to in the Mater Plan. Subject to separate site plan approval, the Master Plan allows for a variety of residential, commercial and institutional uses in Woodmont Commons East. The Master Plan provides development standards, but does not mandate any particular development configuration. The development standards include a cap on the maximum permissible development in each sub-area. For Woodmont Commons East, the maximum permissible development with the completion of Exit 4A includes 330 residences, a 200-room hotel, 420,000 gsf of institutional uses (such as a hospital or assisted living facilities), and 700,000 gsf of commercial/office uses. The Master Plan specifically allows for flexibility on the specific mix of uses between Nursing Homes and Assisted Living, Accommodations and Commercial Uses on a per square foot basis.

As part of the SDEIS process, a Land Use Scenarios Technical Report was prepared to document the potential land development by 2040 with and without the Exit 4A Project, including future levels of population and employment. The report development included review of existing plans (including the Woodmont Commons Master Plan), socioeconomic projections, and interviews with local planning experts. The results of the report were used to ensure consistency between the land use assumptions and traffic modeling for the SDEIS. The results have also been incorporated in the SDEIS analysis of indirect and cumulative environmental impacts as required by NEPA.

## **Definitions**

This section provides definition of the key terms used in this memorandum. The distinction between direct, indirect, and cumulative impacts originates from the Council on Environmental Quality’s (CEQ’s) regulations implementing the National Environmental Policy Act (NEPA) (40 Code of Federal Regulations (CFR) 1500-1508).

**Direct impacts** are “caused by the action and occur at the same time and place” (40 CFR §1508.8).

**Indirect effects** are those effects that “. . . are caused by the action and are later in time and farther removed in distance, but are still reasonably foreseeable.” Indirect effects “may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems” (40 CFR §1508.8(b)). Indirect effects can be further subdivided into encroachment-alteration type effects (such as habitat edge effects caused by the project), induced growth/land development activity, and induced growth (NCHRP 403/466).

**Cumulative effects** are “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions

regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR §1508.7). According to the Federal Highway Administration’s (FHWA) “Interim Guidance: Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process” (2003), cumulative impacts include the total of all impacts to a particular resource that have occurred, are occurring, and will likely occur as a result of any action or influence, including the direct and reasonably foreseeable indirect impacts of a proposed project.

The Section 404 (b)(1) Guidelines use the term “secondary effects” instead of “indirect effects”, but the meaning of the definition is essentially the same. Therefore, the term “indirect effects” is used for consistency within this memorandum to reference both indirect effects in the context of NEPA and secondary effects under Section 404. “**Secondary effects** are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. . . . . Some examples of secondary effects on an aquatic ecosystem are fluctuating water levels in an impoundment and downstream associated with the operation of a dam, septic tank leaching and surface runoff from residential or commercial developments on fill, and leachate and runoff from a sanitary landfill located in waters of the U.S. Activities to be conducted on fast land created by the discharge of dredged or fill material in waters of the United States may have secondary impacts within those waters which should be considered in evaluating the impact of creating those fast lands.” (40 CFR 230.11(h).

The Section 404(b)(1) Guidelines also require consideration of “**cumulative effects**”, defined as “the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems.”

“(2) Cumulative effects attributable to the discharge of dredged or fill material in waters of the United States should be predicted to the extent reasonable and practical. The permitting authority shall collect information and solicit information from other sources about the cumulative impacts on the aquatic ecosystem. This information shall be documented and considered during the decision-making process concerning the evaluation of individual permit applications, the issuance of a General permit, and monitoring and enforcement of existing permits.” (40 CFR 230.11(g)

## **NEPA**

This section outlines the framework for consideration of Woodmont Commons East under NEPA, taking into account regulations, case law and guidance.

### Impact Assessment

NEPA requires disclosure of both indirect (40 CFR 1508.8) and cumulative impacts (40 CFR 1508.7). Case law on indirect land use effects of transportation projects shows that uncertainty regarding the details of impacts of future development is not justification to ignore such reasonably foreseeable effects (City of Davis v. Coleman, 521 F.2d 661, 675-77 (9<sup>th</sup> Cir. 1975)).

The agency must make reasonable assumptions to consider the range of potential induced development effects, and importantly, the environmental resource impacts of such development.

Consistent with this approach, the potential population and employment impacts of Woodmont Commons East have been quantified in the Land Use Scenarios Technical Report and integrated into the travel demand modeling for the project. This information was also used to estimate the range of potential impacts to aquatic resources associated with Woodmont Commons East as part of the indirect effects assessment for the Exit 4A Project.

The methodology and data sources for the assessment of existing wetland and vernal pools is presented in Chapter 4 of the SDEIS. To appropriately reflect the uncertainty associated with the indirect effects analysis, a range of potential aquatic resource impacts will be presented.

1. The low end of impacts will be based on an assessment of the acreage of unconstrained land (e.g. acreage out of the 216 acres without wetlands/vernal pools) and the intensity of development possible on that acreage under the Master Plan development standards. Some impacts will still be assumed in the low impact scenario to account for linear infrastructure such as local circulation roadways and utilities.
2. The high end of the impact range will be based on early concepts for the site presented during the Master Plan development showing the majority of the site covered by a large-scale pad development.

The cumulative impact discussion for Exit 4A will consider the direct impacts of the interchange/roadway project, and the indirect impacts related to potential land development in the context of the conditions and trends affecting aquatic resources in the region. Indirect and cumulative impacts analysis under NEPA does not require the federal agency to take responsibility for the effects of actions by others, but it must consider those actions as “background factors” or context (Landmark West! V. U.S. Postal Service, 840 F. Supp. 994 (S.D.N.Y. 1993)).

#### Mitigation Commitments in the ROD

In order to commit to mitigation eligible for federal funding FHWA must determine that:

1. The impacts for which the mitigation is proposed actually result from the Administration action; and
2. The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures. In making this determination, the Administration will consider, among other factors, the extent to which the proposed measures would assist in complying with a Federal statute, Executive Order, or Administration regulation or policy. 23 CFR 771.105

The lead agencies will commit to mitigation measures in the ROD to address direct impacts to aquatic resources, as well as those indirect effects related to the placement of fill for the roadway (such as habitat edge effects). These impacts are clearly an “actual result” from FHWA’s approval of the project. Future land development by private entities, while reasonably foreseeable and likely to occur in some form, is not an actual result of FHWA’s action. Such development will occur separately, influenced by the Exit 4A project, but also by many other factors such as economic conditions, local planning requirements and environmental permitting requirements.

*Disclosure of Potential Mitigation outside the Jurisdiction of the Lead Agency*

In addition to mitigation commitments included in a ROD that the lead agency is legally bound to implement, NEPA implementing guidance specifically allows for disclosure and discussion of potential mitigation measures outside of the jurisdiction of the lead agency to fund or implement. CEQ 40 Questions and Answers question #19b states (emphasis added):

“All relevant, reasonable mitigation measures that could improve the project are to be identified, **even if they are outside the jurisdiction of the lead agency or the cooperating agencies, and thus would not be committed to as part of the RODs of these agencies.** This will serve to alert agencies or officials who can implement these extra measures, and will encourage them to do so. To ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed. Thus the EIS and the Record of Decision should indicate the likelihood that such measures will be adopted or enforced by the responsible agencies.”

Robertson v. Methow Valley Citizens Council (409 U.S., 109 S.Ct. (1989)) supports the argument that the Exit 4A Project need not be delayed in order to resolve in detail the mitigation to be required for the Woodmont Commons East development. In that case, which involved the Forest Service’s issuance of a special-use permit to a private developer, the imposition of the mitigation plan was within the jurisdiction of state and local agencies not the sponsoring agency. **The court held that: “it would be incongruous to conclude that the Forest Service has no power to act [on issuing the permit] until the local agencies have reached a final conclusion on what mitigation measures they consider necessary.** More significantly, it would be inconsistent with NEPA's reliance on procedural mechanisms -- as opposed to substantive, result-based standards -- to demand the presence of a fully developed mitigation plan before the agency can act.”

Applying the principle of disclosing potential mitigation measures outside the lead agency’s control to Woodmont Commons East, the SDEIS will discuss the potential aquatic resources mitigation options available to the developer, one or more of which would be required for the developer to receive a Section 404 individual permit. The discussion will include a summary of the mitigation ratios presented in the 2016 *New England District Compensatory Mitigation Guidance*.<sup>1</sup> The various types of mitigation options available will be discussed, along with the

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[http://www.nae.usace.army.mil/portals/74/docs/regulatory/Mitigation/2016\\_New\\_England\\_Compensatory\\_Mitigation\\_Guidance.pdf](http://www.nae.usace.army.mil/portals/74/docs/regulatory/Mitigation/2016_New_England_Compensatory_Mitigation_Guidance.pdf)

USACE and EPA mitigation preference hierarchy prioritizing mitigation banking and in-lieu fee programs where available over traditional permittee-responsible mitigation.<sup>2</sup> The likelihood of mitigation being successfully implemented will be discussed, noting the monitoring and reporting requirements typically required by USACE permits. A summary of the New Hampshire Aquatic Resource Mitigation Fund Final In-Lieu Fee Program will be provided.<sup>3</sup> NHDES has information available on the success of the In-Lieu Fee program in funding high priority restoration projects<sup>4</sup>, and it is important to note the program is implemented consistent with the “ecosystem approach” endorsed by FHWA, USACE and EPA.<sup>5</sup>

The “potential mitigation” discussion will make a clear distinction that the mitigation for Woodmont Commons East is not a commitment of the Exit 4A project and is for disclosure purposes only. Obtaining concurrence of the permitting agencies on the Woodmont Commons East mitigation will be the responsibility of the developer and such discussions are premature until the developer has a specific site plan proposal ready and submits a Section 404 permit application. The SDEIS discussion of potential mitigation for Woodmont Commons East will provide information for the developer, USACE, EPA and the Town of Londonderry to consider in the separate future permitting of potential development proposals.

#### **Clean Water Act Section 404**

Unlike the *disclosure* of potential impacts of reasonably foreseeable induced development and potential mitigation options for reducing those impacts required by NEPA, the Section 404 permitting process does not require *implementation* of compensatory mitigation for potential future actions outside the control of the applicant. In this case, the applicant for the Exit 4A Project Section 404 Permit will be NHDOT. Development of a detailed mitigation plan for the Woodmont Commons East is the responsibility of the private proponent of Woodmont Commons East, not NHDOT. In addition, determining mitigation requirements in detail for Woodmont Commons East as part of Exit 4A permitting is not reasonable because no specific site plan for Woodmont Commons East exists that can be shown as an inevitable cause of the new interchange. The upper bounds of potential development in terms of square footage have been established through the Woodmont Commons Master Plan, but the Master Plan does not require any specific site layout or minimum size of development. The developer would require site plan approval from the Town of Londonderry and at this time has not indicated a specific timeframe for starting a site plan review process. Without a specific site plan, only general ranges of impacts to aquatic resources can be discussed. The actual impacts will be highly dependent on the details of the developer’s proposal, which is not available. Without definitive information on the impacts of the development, it would not be possible to define appropriate mitigation requirements in a Section 404 permitting context. Such mitigation requirements should logically be determined when sufficient details on a development proposal are known.

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<sup>2</sup> [https://www.epa.gov/sites/production/files/2015-03/documents/2008\\_04\\_10\\_wetlands\\_wetlands\\_mitigation\\_final\\_rule\\_4\\_10\\_08.pdf](https://www.epa.gov/sites/production/files/2015-03/documents/2008_04_10_wetlands_wetlands_mitigation_final_rule_4_10_08.pdf)

<sup>3</sup> <http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/NHinstrument051812.pdf>

<sup>4</sup> <https://www.des.nh.gov/organization/divisions/water/wetlands/wmp/documents/arm-fund-web.pdf>

<sup>5</sup> [https://www.environment.fhwa.dot.gov/ecological/eco\\_index.asp](https://www.environment.fhwa.dot.gov/ecological/eco_index.asp)

This argument is supported by the USACE's Section 404 permitting regulations, which require that "All compensatory mitigation will be for significant resource losses which are specifically identifiable, reasonably likely to occur, and of importance to the human or aquatic environment. Also, all mitigation will be directly related to the impacts of the proposal, appropriate to the scope and degree of those impacts, and reasonably enforceable" (33 CFR 320). In this case, the impacts of Woodmont Commons East are not "specifically identifiable" due to the lack of specific development proposal.

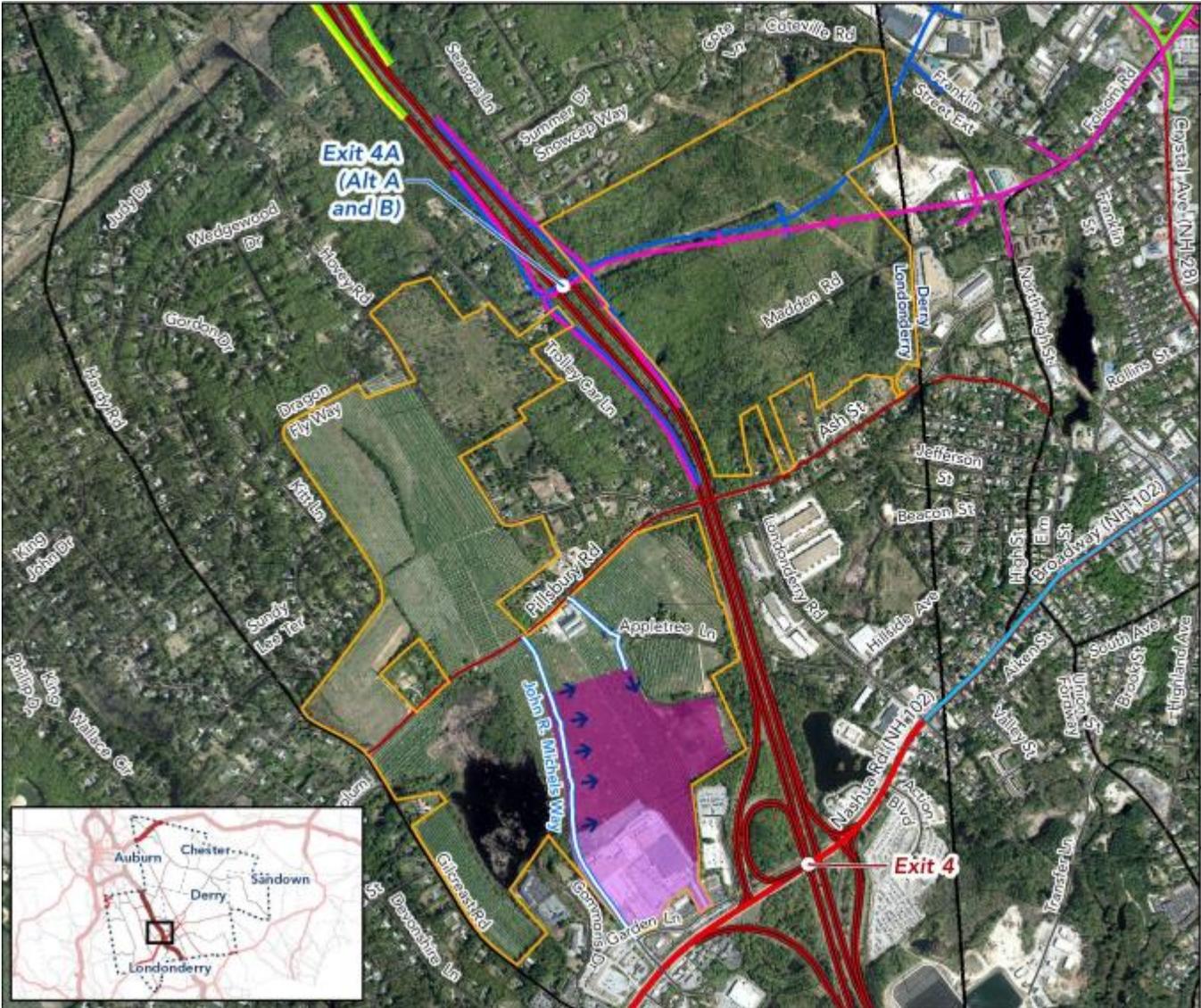
None of the lead agencies (FHWA, NHDOT, and the Towns) are proposing development of Woodmont Commons East. In any case, the control of the development is private and therefore mitigation costs and responsibilities should remain with the private developer. The developer will need to obtain a separate Section 404 permit and demonstrate that their development proposal complies with the Section 404 (b)(1) guidelines, including demonstration of avoidance and minimization measures, as well as development of a compensatory mitigation proposal for unavoidable impacts to aquatic resources.

## **Appendix A**

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### **Woodmont Commons**

# I-93 Exit 4A Supplemental Draft EIS



- Woodmont Commons
  - Market Basket Redevelopment
  - Woodmont Commons Phase 1
  - Woodmont Commons Access
- Alternatives**
- A
  - B
  - C
  - D
  - F
- Major Roads**
- Interstate
  - Principal Arterial - Other
  - Minor Arterial
  - Major Collector
  - Minor Collector



Sources:  
 CLD Engineers  
 Town of Derry GIS  
 Town of Londonderry GIS  
 New Hampshire DOT

Coordinate System:  
 NAD 1983 StatePlane  
 New Hampshire (feet)

Date:  
 September 14, 2016

