

## 1.0 INTRODUCTION

The Towns of Derry and Londonderry, New Hampshire (the Towns), and the New Hampshire Department of Transportation (NHDOT), in cooperation with the Federal Highway Administration (FHWA), prepared this Final Environmental Impact Statement (FEIS) for the Interstate 93 (I-93) Exit 4A Project (Project). The Project is located in the Towns and includes construction of a new interchange with I-93 (known as Exit 4A) and other transportation improvements to reduce congestion and improve safety along State Route 102 (NH 102), from I-93 easterly through downtown Derry, and to promote economic vitality in the Derry/Londonderry area.

This FEIS has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA; Public Law 91-190, 42 United States Code [USC] 4321–4347 as amended) and the regulations of the Council on Environmental Quality (CEQ; 40 Code of Federal Regulations [CFR] 1500–1508), as well as applicable FHWA regulations (23 CFR Part 771; 23 USC 138) and guidance (FHWA, 1987).<sup>1</sup> This FEIS contains three volumes: Volume I contains all text and tables, Volume II contains all figures, and Volume III contains all appendices. Volume I is organized as follows:

- Chapter 1. Introduction
- Chapter 2. Purpose and Need
- Chapter 3. Alternatives Analysis
- Chapter 4. Affected Environment and Environmental Consequences
- Chapter 5. Indirect Effects and Cumulative Impacts
- Chapter 6. Other Topics
- Chapter 7. Section 4(f) Evaluation
- Chapter 8. Public Involvement and Agency Coordination
- Chapter 9. FEIS Distribution List
- Chapter 10. List of Preparers
- Chapter 11. Acronyms
- Chapter 12. References

### 1.1 Project History

The I-93 Exit 4A Project dates back to 1985 when the Town of Derry first approached NHDOT regarding the possibility of obtaining funding for a new I-93 interchange. The Southern NH Regional Planning Commission (SNHPC) conducted a transportation study for Derry later that year to evaluate alternatives to relieve traffic congestion along NH 102 in downtown Derry. Based on the results of that study, the Derry Town Council endorsed a new interchange

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<sup>1</sup> The referenced regulations and other documentation form the basic guidance requirements in preparing NEPA documents. Subsequent sections of this FEIS include discussion of additional pertinent regulations, guidance, and Presidential Executive Orders and their applicability to resource impacts.

alternative. In May 1987, the NH Legislature passed empowering legislation that directed NHDOT "...to cooperate with the Towns of Derry and Londonderry in the development of an acceptable design for a new exit to I-93 between existing Exits 4 and 5 to serve the Towns of Derry and Londonderry." Funding for the Project was to be provided by the Towns, and it was required that the Project meet current NHDOT highway design standards. Following the passage of this legislation, the Towns initiated preliminary planning and engineering in June 1987.

In 1988, the Towns submitted an application for approval of a break in the limited access right-of-way (ROW) for a new interchange on I-93 between existing Exits 4 and 5 to NHDOT and FHWA. FHWA approved this application in 1991, subject to several conditions, including the condition that the Project would need to meet NEPA requirements. FHWA later determined that an Environmental Impact Statement (EIS) must be completed for the Project. Additionally, FHWA approved only easterly access from the interchange. Although the potential for access to the west had to be considered in the planning process, it required its own independent approval process for any future consideration.

In 1996, State Senate Bill 581 was drafted to eliminate the exclusive Town funding requirement. Senate Bill 581 became unnecessary when State House Bill 1025 passed in 1996. House Bill 1025 endorsed NHDOT's 10-year plan, which included this Project and made it eligible for the use of state or federal funding.

After Derry and Londonderry each approved \$5 million in bond authorization for the Project in 1997, the formal EIS process began in 1998, and the Notice of Intent was published in the Federal Register on June 12, 1998 (Vol. 63, No. 113). The environmental document, public involvement, and preliminary design analysis process began with the formal scoping process on June 30, 1998. Twenty-two meetings then solicited input from federal, state, and town officials and the public. The meeting groups included the Citizens Advisory Task Force (CATF) and Technical Advisory Committee (TAC), which comprised Town representatives, regional and state planners and engineers, and the public. A major purpose of the early public involvement was to obtain input on identifying a reasonable range of alternatives for the Project.

At each step of the environmental review process, meetings were held with natural, cultural, and socioeconomic resource agency staff members. Proposed alternative alignments and associated impacts were discussed, and input was received from agency members to ensure concurrence with federal and state permitting authorities. Site walks of the remaining alternatives and potential mitigation sites were held with the resource agencies on March 1, 2000; May 23, 2006; and June 15, 2006. The Project was also presented at U.S. Environmental Protection Agency (EPA) headquarters in Boston, Massachusetts, on February 27, 2003, at its secondary impact workshop.

Based on input received from the resource agencies in January 2003, FHWA suggested that the Towns perform additional socioeconomic-related studies. Because of financial considerations required for studying additional topics of concern, the Towns paused the Project in February 2003. In June 2005, the Towns recommenced the EIS review process. Because of the delay in the review process, field and database constraints information, as well as traffic information for the Project, was updated to reflect 2005 conditions.

In March 2006, at a meeting with federal, state, and town officials, a comprehensive summary was presented and discussed comparing the advantages and disadvantages of the alternatives under consideration. The Towns subsequently selected Alternative A as their preferred

alternative, a new Exit 4A interchange located approximately 1 mile north of Exit 4. The resource agencies concurred with the selection of the preferred alternative. The Draft EIS (DEIS) was then developed in anticipation of an upcoming public hearing. The Notice of Availability of the DEIS was published in the Federal Register on August 3, 2007 (Vol. 72, No. 149).

The 2007 DEIS publication was followed by a joint NHDOT, New Hampshire Department of Environmental Services (NHDES), and U.S. Army Corps of Engineers (USACE) public hearing held on September 12, 2007, at the Derry Municipal Center. On March 3, 2008, a necessity meeting was held at the Derry Municipal Center to update the special committee members on comments received at the September 12, 2007, public hearing and to review the Towns' responses. At the conclusion of that meeting, the special committee voted unanimously to approve the necessity of the Project.

Between March 2008 and December 2010, work progressed on addressing comments received on the DEIS. These efforts were initially limited to collecting one year of stream monitoring data for chlorides and performing a vernal pool field study in the spring of 2009. Between 2009 and 2011, work included development of a preliminary draft Final EIS (FEIS) and further development of mitigation for wetland and vernal pool impacts. Funding issues then put completion of the FEIS on hold.

In October 2015, the Governor's office directed NHDOT to accelerate the Project, and it was subsequently included in the state's Ten-Year Transportation Improvement Plan for 2017–2026. NHDOT and the Towns entered into an agreement under which NHDOT will provide administrative oversight for the completion of the environmental review process, and then the Project will transition to NHDOT control during final design and construction.

Because significant time elapsed since the 2007 DEIS, FHWA requested preparation of a Supplemental DEIS (SDEIS) in accordance with NEPA (see Section 1.3 for details). On November 7, 2016, in compliance with the requirements of 23 USC 139(e), NHDOT and the Towns formally notified FHWA of their intent to re-initiate an EIS process for the Project (see Appendix A). The revised Notice of Intent for the SDEIS was published in the Federal Register on December 8, 2016 (Vol. 81, No. 236). The SDEIS provided a comprehensive Project reevaluation, considering changes in environmental regulatory requirements, existing conditions, expected future conditions, and Project design. This FEIS addresses public and agency comments made on the SDEIS during the comment period.

In addition to the responses to comments prepared for NEPA purposes, NHDOT and the Towns' responses to comments from the December 5, 2018, public hearing are provided in Appendix N (Report to the Special Committee). The Special Committee Layout Meeting was held on September 18, 2019, and the finding of necessity was approved.

## **1.2 Project Study Area**

The study area defined for the initial screening of alternatives encompassed approximately 26 square miles within western portions of Derry and eastern Londonderry in western Rockingham County, NH (Figure 1.2-1). A large study area was necessary at that stage of the Project to consider a wide range of potential alternatives for meeting the Project's purpose and need. The 26-square-mile study area was concurred with by the federal and state regulatory/resource agencies at an agency scoping meeting on July 30, 1998 and also used for the 2007 DEIS. For this FEIS, the study area for each resource was redefined to focus data collection and reporting

on existing conditions to the area where there is the potential for direct impacts from the five Build Alternatives (A, B, C, D, and F). Chapter 4 contains the rationale for each of the updated resource study areas. Finally, a larger, five-town study area is used to identify potential indirect effects and cumulative impacts related to the Project (see Chapter 5).<sup>2</sup>

### **1.3 Requirements Met by the Final Environmental Impact Statement**

NEPA requires a supplemental EIS when changes in the proposed action or new circumstances would result in significant environmental impacts not evaluated in the previous DEIS or FEIS (23 CFR 771.13). The purpose of the SDEIS was to provide an up-to-date assessment of the I-93 Exit 4A Project that considers changes in alternatives design (through updated preliminary engineering studies), 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)). New circumstances affecting the Project include, but are not limited to: the final design for the ongoing widening of the I-93 mainline in the Project area; approved developer plans for a new, mixed-use development on both the east and west sides of I-93 (Woodmont Commons); the chloride total maximum daily load (TMDL) for the Beaver Brook watershed, Chloride Reduction Implementation Plan and reissuance of the Municipal Separate Storm Sewer System (MS4) general permit; and updated demographic projections affecting future travel demand.

Pursuant to CEQ and FHWA regulations, the SDEIS was subject to the same distribution and public review requirements as the previously published DEIS, except that scoping is not required (23 CFR 771.130(d)).

Because significant time has elapsed since the 2007 DEIS, FHWA requested documentation of updated studies in the SDEIS in accordance with NEPA. Updated studies and associated documentation began in June 2016 to document changes in baseline conditions. The SDEIS considered the updated information to confirm the underlying conditions and assumptions supporting the purpose and need, and range of alternatives; and to assess the environmental effects of the Project and reasonable alternatives. Updated information includes, but is not limited to, traffic, socioeconomic projections, land development proposals in the Project area, and changes in environmental resources and regulatory requirements. After the SDEIS was completed and a preferred alternative was presented at a public hearing on December 5, 2018, FHWA, with input from state and federal agencies; state, town, and local officials; and the public, will choose a Proposed Action. NHDOT and FHWA have completed the NEPA environmental review process by issuing this combined FEIS and Record of Decision (ROD).

### **1.4 Changes since the SDEIS**

Following is a summary of the substantive revisions made to the FEIS based on public and agency comments on the SDEIS.

- Section 1.5. Update of federal and state actions anticipated to be required for the Project

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<sup>2</sup> The limits of the economic study area were agreed upon in consultation with state and federal agency staff at a meeting held on August 25, 2005. Given that there are no major changes in the basic alignment of the alternatives under consideration since the 2007 DEIS, the previously agreed on study area remains reasonable for this FEIS.

- Section 3.6.2. Refinement of the improvements associated with the preferred alternative (Alternative A)
- Section 3.7.2. Clarification as to why Alternative F does not meet the purpose and need
- Section 4.4.3. Evaluation of transportation conformity compliance
- Section 4.7.2. Refinement of the parcel acquisitions for the preferred alternative
- Section 4.10.2. Update related to the potential for contaminated sites based on geotechnical work in support of the preferred alternative
- Section 4.11.1. Update to designated water uses for New Hampshire surface waters from ENV-Wq 1702.17
- Section 4.11.3. Clarification of the MS4 general permit conditions, addition of chloride mitigation measures, and updated water quality monitoring commitments in the Beaver Brook watershed
- Section 4.12.2. Refinement of impact calculations for the preferred alternative and discussion of wetland edge effects and prime wetland impacts
- Section 4.12.3. Addition of more specific details related to mitigation of impacts to wetlands and vernal pools and updated in-lieu-fee estimates
- Section 4.13.1. Clarification of wellhead protection areas and addition of existing conditions for groundwater quality
- Section 4.13.2. Addition of the estimated number of wells within wellhead protection areas potentially impacted by each alternative
- Section 4.13.3. Addition of groundwater protection measures
- Section 4.14.2. Refinement of impact calculations for the preferred alternative
- Section 4.14.3. Clarification of mitigation for impacts to streams from the preferred alternative
- Section 4.16.3. Addition of mitigation related to plants and wildlife habitat
- Section 4.18. Reorganization of information to improve clarity
- Section 4.18.5. Refinement of potential effects to historic properties from the preferred alternative
- Section 4.18.6. Refinement of mitigation of potential effects to historic properties from the preferred alternative
- Section 5.4.2. Refinement of indirect and cumulative effects to streams, wetlands, and vernal pools related to the preferred alternative
- Section 7.4.1. Addition of detailed effects to historic properties subject to Section 4(f) from the preferred alternative
- Sections 7.5.1 and 7.5.4. Addition of mitigation measures for potential impacts to unknown archaeological resources

- Section 8.2.4. Discussion of the public hearing

## 1.5 Rationale for Combined FEIS/ROD Format

Per FHWA's NEPA regulations, a combined FEIS/ROD format must be used, to the maximum extent practicable, unless the final EIS makes substantial changes to the proposed action that are relevant to environmental or safety concerns, or there are significant new circumstances or information relevant to environmental concerns that bear on the proposed action or the impacts of the proposed action (23 CFR 771.124(a)(1)). There are no substantial changes to the proposed action/preferred alternative for this FEIS. The same basic alignment and layout is proposed currently as was presented for Alternative A in the SDEIS. The FEIS incorporates updates, clarifications, and corrections based on public and agency comments on the SDEIS, but these changes are not considered significant new circumstances or information.

On April 25, 2019, the USDOT Office of Transportation Policy issued "Guidance on the Use of Combined Final Environmental Impact Statements/Records of Decision and Errata Sheets in National Environmental Policy Act Reviews." The Guidance includes six practicability factors, each of which is discussed below. In conclusion, none of the six factors preclude the use of a combined FEIS/ROD. The participating agencies were appropriately notified of the intent to prepare a combined FEIS/ROD in early coordination (documented in the Coordination Plan), and the public was also notified in the SDEIS and at the public hearing.

### **1. Are there any coordination activities that are more effectively completed after the FEIS is available?**

There are not any outstanding coordination activities that would be more effectively completed after the FEIS is available. No joint lead agency or cooperating agency has requested a separate FEIS and ROD to accommodate its decision-making requirements. During review of the Draft Coordination Plan, EPA did not object to the Combined FEIS/ROD format, but rather asked that FHWA "revisit this strategy at a later point in the project review to confirm that the facts and circumstances surrounding the project after comments are received on the SDEIS continue to support this approach." As documented in this section, FHWA has considered the appropriateness of preparing a combined FEIS/ROD, including consideration of the public and agency comments received on the SDEIS, and the participating agency comments received on an Administrative Draft FEIS.

### **2. Are there any unresolved interagency disagreements over issues that need identification in the FEIS?**

There are areas of interagency disagreement as identified in ES.7, specifically related to mitigation responsibilities for the aquatic resource impacts of induced growth. However, issuance of a separate FEIS would not contribute to resolving these differences in policy interpretation because these issues have already been subject to extensive interagency coordination. The areas of disagreement were discussed with the agencies during the preparation of the SDEIS (including participating review of technical reports and the administrative draft SDEIS), including multiple meetings and documentation of responses to agency comments. The participating agencies were able to provide further input during the public review period for the SDEIS. A draft of the FEIS and associated responses to comments on the SDEIS was provided to the participating agencies for review in accordance with the project's Coordination Plan. The participating agency comments on the draft FEIS were considered and incorporated in this

FEIS/ROD, as appropriate. On October 24, 2019, the joint lead agencies held a conference call with EPA and NHDES to discuss participating agency comments on the draft FEIS (which included draft responses to all comments received on the SDEIS). As a result of this discussion, the lead agencies agreed to incorporate EPA and NHDES suggestions in the FEIS/ROD. A summary of the October 24, 2019, conference call is provided in Appendix A, along with detailed responses to participating agency comments on the Administrative Draft FEIS.

### **3. Is there a substantial degree of controversy?**

There is not a substantial degree of controversy concerning the proposed action that a separate FEIS and ROD would help resolve. Public comments have been received in favor and in opposition to the proposed project many of the public comments in opposition to the project relate to impacts to specific properties, opposition to the project's environmental impacts and general concerns about the cost of the project. The majority of agency concerns have been resolved through the coordination that occurred throughout the NEPA process, however areas of interagency disagreement do exist as discussed in item #2 above. Responses to all substantive comments (public comments and agency comments) on the SDEIS are provided in Appendix M of this FEIS/ROD. Agency comments on the 2007 DEIS and a draft FEIS prepared in 2009 (which was not completed) were also considered during the development of the scope of work for the 2018 SDEIS. For example, EPA comments on induced growth issues led to the development of a comprehensive Land Use Scenarios Technical Report to provide a foundation for assessing induced growth and related environmental impacts for the SDEIS.

### **4. Does the DEIS identify a preferred alternative from among the comparatively evaluated reasonable alternatives?**

The SDEIS identified Alternative A as the Preferred Alternative; therefore, this criterion is not applicable.

### **5. Are there compliance issues with substantive requirements that must be resolved before issuance of the ROD, or that the Operating Administration wants to resolve before signing the ROD, but that do not merit deferring issuance of the FEIS?**

The required compliance requirements applicable to the Preferred Alternative have been addressed, including conclusion of the Section 106 process with an executed Memorandum of Agreement (MOA). Therefore, there is no rationale for issuing a separate FEIS and ROD based on compliance requirements.

### **6. Is the environmental review for the proposal being completed under One Federal Decision?**

The proposed project is not subject to One Federal Decision because the Notice of Intent was published on December 8, 2016, before the Executive Order 13807 was issued on August 15, 2017. Other federal agency approvals (principally the USACE Section 404 permit) will require a separate NEPA decision-making document.

## **1.6 Federal and State Actions Required**

The actions listed below are required prior to implementing the Project:

- An individual wetland permit application has been submitted to USACE and a Major Dredge and fill permit application has been submitted to the NHDES

Wetlands Bureau for their approval. This Project has been developed following USACE's Highway Methodology, which integrates the permit process required under Section 404 of the Clean Water Act (CWA) with the requirements of NEPA.

- A Section 401 (of the CWA) Water Quality Certificate (WQC) is required from NHDES prior to issuance of the Section 404 permit.
- Pursuant to the requirements of the National Pollutant Discharge Elimination System (NPDES), a Notice of Intent application to EPA for a General Permit for Construction Activity is required prior to commencement of construction. A Stormwater Pollution Prevention Plan consistent with NHDOT standard specifications and BMPs for soil erosion and sediment control would be developed and submitted with the Notice of Intent application.
- The conditions in the MOA between FHWA, NHDOT, NHDHR, and Town of Derry, per Section 106 of the National Historic Preservation Act (NHPA) regarding resolution of effects on the M&L Railroad Historic District, would be addressed as stipulated.
- FHWA would have to approve the Interstate Access Request in accordance with 23 USC 111 (preliminary approval received October 21, 2019, final approval contingent on completion of NEPA process).
- NHDOT and FHWA would have to approve the design of the proposed interchange.