5

Section 4(f) Evaluation

5.1 Introduction

Under Section 4(f) of the Department of Transportation Act as amended by the Federal-Aid Highway Act of 1968 (Public Law 90-495, 49 USC 1653), the Secretary of Transportation shall not approve any program or project which "requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance as so determined by federal, state, or officials having jurisdiction thereof, or any land from a historic site of national, state or local significance as so determined by such officials unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use."

This combined Environmental Impact Statement (EIS) and Section 4(f) Evaluation provides the required documentation to demonstrate that there is no prudent and feasible alternative to affecting 4(f) resources in the form of historic resources. This evaluation also outlines the coordination that has occurred and the measures proposed to minimize harm to these resources.

5.2 Description of Preferred Alternative

NHDOT in planning this project examined a large number of multimodel and highway improvement alternatives. After an initial screening, seven alternatives or combinations thereof were selected as a "reasonable range of alternatives" for more detailed evaluation. (See Section 2.5.) These included the No-Build Alternative; TSM measures, primarily ramp lengthening and lane widenings; widening I-93 in each direction to Four-Lanes, Three-Lanes, or a Four-Lane/Three-Lane Combination with the reduction of lanes after Exit 3; TDM measures, specifically ITS techniques as well as employer-based measures to encourage people to not drive alone; and improvements in bus service to northern Massachusetts. Additional details on all of these alternatives can be found in Section 2.3.

The NHDOT's Preferred Alternative involves a combination of transportation infrastructure improvements and strategies for the 19.8-mile study corridor. The Preferred Four-Lane Alternative begins in the Town of Salem, NH at the Massachusetts/New Hampshire State line and extends northerly through Salem, Windham, Derry and Londonderry, and into Manchester, ending at the I-93/I-293 interchange. See **Section 2.7** and **Figures 2.7-1 through 2.7-23** for details. In concert with the mainline widening to four lanes in each direction, the following infrastructure improvements were selected for the five interchanges and local roads within the project corridor:

- In the Exit 1 Interchange area, the existing Cross Street Bridge will be replaced with a new bridge located just to the north. This new bridge will be of sufficient length to preserve a potential rail corridor west of I-93. The existing interchange at Exit 1 will be reconstructed to improve the substandard ramp geometry. **(Figure 2.7-3)**

- At Exit 2, the existing interchange is reconstructed to a diamond type interchange configuration with new longer span bridges carrying carry I-93 over Pelham Road. Pelham Road will be widened and reconstructed from Policy Road to Stiles Road **(Figure 2.7-4)**. Approximately 0.7 mile north of Exit 2, the Brookdale Road Bridge will be replaced on-line. **(Figure 2.7-5)**

- At Exit 3, both the northbound and southbound roadways of I-93 are relocated (referred to as the Tight Shift Option) into the existing median area. New longer span bridges will carry I-93 over NH 111 and NH 111A. The interchange ramps will be reconfigured with a diamond interchange design. NH 111 will be reconstructed and widened with the work beginning just west of the NH 111/NH 111A intersection and extending westerly through the Exit 3 interchange to a point just west of the southbound ramps where NH 111 is relocated (Relocation Option) north of its existing location before tying into existing NH 111 near the Village Green Plaza intersection. **(Figures 2.7-8 through 2.7-10)**

- In the Exit 4 Interchange area, I-93 will be widened to the east, retaining the existing layout for the southbound ramps. The existing northbound ramps configuration will be retained and reconstructed. NH 102 will be reconstructed and widened from Londonderry Road to its intersection with the southbound ramps. The NH 102 bridge over I-93 will be replaced with a new longer span bridge constructed directly south of the existing bridge. The Ash Street/ Pillsbury Road bridge will be replaced with a new structure on-line. **(Figures 2.7-15 through 2.7-17)**

- At Exit 5, NH 28 will be widened and reconstructed on-line from west of Symmes Drive to just south of Liberty Drive including the reconstruction of the Perkins Road and Symmes Drive approaches, as well as the reconstruction of a portion of both Liberty and Independence Drives and a segment of the Auburn Road approach. The existing diamond interchange will be reconstructed and modernized. **(Figures 2.7-18 through 2.7-19)**

Three new park and ride lots are proposed with facilities planned at Exits 2, 3 and 5. Early construction of the park and ride facilities and the implementation of expanded bus service are proposed in advance of the highway widening to facilitate the maintenance of traffic.

- At Exit 2, the park and ride will be located adjacent to the interchange in the SE quadrant. **(Figure 2.7-5)**
- At Exit 3, the park and ride will be located easterly of and adjacent to the relocated northbound barrel in the SE quadrant of the reconstructed interchange. **(Figure 2.7-8)**
- At Exit 5, the park and ride will be located west of the interchange along NH 28 where currently the Exxon gas station/Cycle World and the Senior Center exist. **(Figure 2.7-19)**

The NHDOT proposes to implement Intelligent Transportation System technologies as well as Incident Management strategies for the I-93 corridor. Measures such as variable message boards, highway advisory radio broadcasts, web site information, emergency reference markers are under consideration as well as greater coordination between NHDOT, State Police, and local emergency officials.

To further expand multimodal opportunities, the NHDOT proposes to carry forward those elements of a bike path along the I-93 corridor that are in keeping with objectives for north-south bike routes between Salem and Concord in the region served by I-93. The Preferred Four-Lane Alternative will also accommodate space within the highway corridor for a potential rail line between the Exit 5 interchange and the MA/NH state line. The rail corridor could provide future rail service between Lawrence, MA or Woburn, MA (and ultimately Boston, MA) to the south and the Manchester Airport and/or the City of Manchester, NH to the north.

5.3 Description of Section 4(f) Resources

Full descriptions of National Register Eligible properties in the project area are included in Section 3.10.4.3. Section 4(f) impacts occur to the Kinzler House (SAL0204), Robert Armstrong House (WND0086), George Armstrong House (WND0085), George Dinsmore House (WND0033), Robert J. Prowse Bridge (LON0116), Woodmont Orchards Historic District (LON-D1), Reed Paige Clark Homestead (LON0114) and the Gearty House (LON0105).

5.4 Impacts on Section 4(f) Properties

All Section 4(f) impacts are historic as no public parks, recreation areas or waterfowl and wildlife refuges will be affected.

Segment A

The Three-Lane and Four-Lane Alternatives and Combination Alternative will have a similar Section 4(f) impact on the 5.8-acre Kinzler House property (SAL0204), located on Cross Street (**Figure 5.4-1**). Some 2,200 square feet would be acquired for right-of-way. Approximately 1,200 square feet for slope work will be necessary, which will be contained within the proposed right-of-way.

Segment B

This segment would have no Section 4(f) impacts on historic resources.

Segment C

This segment would have no Section 4(f) impacts on historic resources.

Segment D

The tight-shift options with the Three-Lane, Four-Lane, and Combination Alternatives in Segment D will involve Section 4(f) impacts to two historic properties: the Robert Armstrong House (WND0086) and the George Armstrong House (WND0085), both located on NH 111A (Range Road) in Windham (**Figure 5.4-2**). Both properties will need to be acquired and the historic structures relocated or demolished.

Only Options 1, 2 and 7 in Segment D would have a Section 4(f) impact on the George Dinsmore House (WND0033) through slope work that would affect 1,500 square feet of the 1.1-acre eligible parcel (**Figure 5.4-3)**.

Segment E

Three impacts to historic properties will occur in Segment E. The widening of the northbound and southbound lanes of I-93 will necessitate the replacement of the Robert J. Prowse Bridge (LON0116), which has been determined eligible for the National Register (**Figures 5.4-3)**. Its loss would constitute a Section 4(f) impact through physical destruction of the historic structure.

The 196-acre Woodmont Orchards Historic District (LON-D1) will not be impacted by the Preferred Alternative or the Easterly Options. However, this parcel would be impacted by the Westerly Option by right-of-way acquisition of 5.4 acres along the west side of I-93 which includes slope impacts to 3.6 acres in the same area.

The 114.4-acre Reed Paige Clark Homestead (LON0114) on Stonehenge Road will be impacted by the loss of approximately 2 acres of land along its boundary with I-93 due to right-of-way acquisition with either the Three-Lane or Four-Lane Alternative. Of this total, 0.2 acres and 0.4 acres of land will be affected by slope work with the Three-Lane and Four-Lane Alternatives , respectively (**Figure 5.4-4**). However, the work will not affect any National-Register eligible characteristics of the property

because this area has been previously disturbed by construction and was not traditionally part of the agricultural operations because of its topography. The eligible boundary was created by the construction of Interstate 93 and is not the historic boundary of the property.

Segment F

The Gearty House property (LON0105), which contains 1.5 acres, is eligible for the National Register (**Figure 5.4-5**). This property will be affected by right-of-way acquisition of 100 square feet plus slope work on 365 square feet of the property. This is considered an adverse Section 106 effect and would result in a Section 4(f) impact.

5.5 Avoidance

Consideration was given in the planning process to shifts in the alignments to avoid 4(f) impacts. All alternatives avoid 4(f) impacts to the Armenian Settlement Historic District (SAL-D1), Indian Rock (WND0206), the Moody House (LON0117), the Shepard House (LON0103), and the Manchester Low-Service Pumping Station (MAN-D1). Only the No-Build Alternative avoids any 4(f) impacts to all historic properties. In Segment D, Options 1, 2, and 7 would have 4(f) impact on the George Dinsmore House (WND0033), while all remaining options for Segment D would avoid these impacts.

Specific avoidance alternatives for the impacted properties follow:

Kinzler House (SAL0204)

The impacts to the Kinzler House cannot be avoided because of the need to replace the existing Cross Street Bridge and its approaches. The new bridge and approach alignment was shifted northerly, away from the Kinzler House as much as practicable before transitioning and matching into existing Cross Street. The Three-Lane, Four-Lane, and the Combination Alternatives are identical in this area. The alternatives have 4(f) impacts to this property. However, the impact is minor and will not change the National Register Eligible characteristics of the property.

George F. Armstrong House (WND0085)

For the Three-Lane, Four-Lane, and Combination Alternatives, only the Northbound Shift Option, which includes Options 1-6 in Segment D, avoids the loss of this historic property. There is no way to avoid the removal of the buildings under the Tight Shift Option, which includes Options 7-9 for the Three-Lane and Four-Lane Alternatives. The Tight Shift Option is a component of the Preferred Alternative. Options 7-9 include the realignment of the northbound and southbound barrels of I-93 into the median area. The layout was developed at the Town of Windham's request to look at ways to reduce the Exit 3 Interchange footprint, similar to other interchanges along the corridor. With the Tight Shift Option, the mainline grade for the southbound roadway would be raised nearly 25 feet through the Exit 3 Interchange area to flatten

and improve the existing steep downgrade from five-percent to approximately three-percent. The grade raise would improve the current undesirable geometric combination of a steep downgrade with relatively sharp horizontal curvature along the southbound roadway. The shift also moves the mainline away from both Cobbetts Pond and Canobie Lake (important recreational resources and in the case of Canobie Lake, the Salem drinking water supply), while allowing for the reconnection of previously bisected wetlands in the interchange area.

Robert Armstrong House (WND0086)

For the Three- and Four-Lane Alternatives, only the Northbound Shift Option, which includes Options 1-6 in Segment D, avoids the loss of this historic property. There is no way to avoid the removal of the buildings under the Tight Shift Option, which includes Options 7-9 for the Three-Lane, Four-Lane and Combination Alternatives. Options 7-9 include the realignment of the northbound and southbound roadways of I-93 into the median area. The layout was developed at the Town of Windham's request to look at ways to reduce the Exit 3 Interchange footprint to a smaller footprint similar to other interchanges along the corridor. With the Tight Shift Option, the mainline grade for the southbound roadway would be raised nearly 25 feet through the Exit 3 Interchange area to flatten and improve the existing steep downgrade from five-percent to approximately three-percent. The grade raise would improve the current undesirable geometric combination of a steep downgrade with relatively sharp horizontal curvature along the southbound roadway. The shift also moves the mainline away from both Cobbetts Pond and Canobie Lake (important recreational resources and in the case of Canobie Lake, the Salem drinking water supply), while allowing for the reconnection of previously bisected wetlands in the Exit 3 Interchange area. Only Options 1-6 in Segment D of all Alternatives avoid the loss of this historic property. There is no way to avoid the removal of the buildings under Options 7-9.

George Dinsmore House (WND0033)

The widening of I-93 for the Three-Lane, Four-Lane, and Combination Alternatives avoids the Section 4(f) impact on this property. For any alternative, the only options along NH 111 that have slope impacts to the property are Options 1, 2, and 7 of Segment D. Selection of Options 3-6, 9, or the Preferred Alternative, Option 8, would avoid these impacts.

Woodmont Orchards Historic District (LON-D1)

The Segment E, Easterly option avoids any slope and right-of-way impacts on the Woodmont Orchard property for the Three-Lane, Four-Lane, and Combination Alternatives. Segment E, Westerly option would have both slope and right of way impacts to this property under all alternatives. The Easterly and Westerly options refer to widening the I–93 mainline either all to east or to the west. These alternatives were developed to test the relative impacts of one option against the other, while trying to stay away from Wheeler Pond and the adjacent wetlands on the east and the 4(f) Woodmont Orchard property on the west. In addition, the Westerly option

would require reconstruction of a portion of the existing Exit 4 Park and Ride lot as well as additional costs associated with reconstruction of the southbound ramps and ledge removal.

Reed Paige Clark House (LON0114)

All alternatives result in impact to this property. Considering the 114.4-acre size of this property, this effect is considered minimal. The land acquired is already disturbed and was not traditionally part of the agricultural operations of the property.

Gearty House (LON0105)

All alternatives impact this property. Measures to minimize harm include minimizing acquisition and slope work, which limit impacts to the property.

Robert J. Prowse Bridge (LON0116)

There is no feasible way to avoid the necessity of replacing this bridge under the Three-Lane, Four-Lane, and Combination Alternatives. The existing span of the Prowse Bridge is not adequate to accommodate the proposed mainline widening for any of the Alternatives.

5.6 Measures to Minimize Harm

Kinzler House (SAL0204)

Impacts to this property have been minimized as much as feasible in project design.

The George F. Armstrong House (WND0085)

The only possible measure to minimize harm for the loss of this property under Options 7-9 of the Three-Lane, Four-Lane and Combination Alternative is to record the building to HABS standards. It will then be marketed with a protective covenant for relocation in an appropriate setting. A portion of demolition costs would be allocated as an incentive for relocation.

Robert Armstrong House (WND0086)

The only measure to minimize harm for the loss of this property under Options 7-9 of any alternative is to record the house to HABS standards, then market it with a protective covenant for relocation in an appropriate setting. Because of the high architectural quality and integrity of the house, the feasibility and practicality of NHDOT relocating it to a suitable setting and providing foundation, water and sewer to facilitate marketing with a protective covenant will be investigated. The issue of relocating the house and maintaining its historic integrity will be reviewed with the property owner, the Windham Historical Commission, and the prospective owners of the dwelling in consultation with FHWA and NHDHR.

George Dinsmore House (WND0033)

Minimizing slope work is the only measure to minimize impact to this property under Options 1, 2 and 7.

Woodmont Orchards Historic District (LON-D1)

There is no mitigation for the adverse effect of right-of-way acquisition and slope work under Segment E-Westerly option.

Reed Paige Clark House (LON0114)

Considering the 114.4-acre size of the property and the fact that the characteristics that make the site eligible for the historic registration are not being affected, the impact to this property is considered minimal and mitigation efforts would have little benefit.

Robert J. Prowse Memorial Bridge (LON0116)

The measures to minimize the loss of this structure would be to record the bridge to HAER (Historic American Engineering Record) standards and market it for relocation. However, relocation appears unlikely because of the size of the bridge. The original bridge plaque would be retained and a commemorative marker installed between the new bridge and the bike path. An enlarged, captioned photograph of the bridge will be displayed in the NHDOT lobby.

5.7 Coordination

Meetings were held among the State Historic Preservation Office (NHDHR), the Federal Highway Administration (FHWA), and the New Hampshire Department of Transportation (NHDOT) throughout the course of the project. Determinations of National Register Eligibility were made at meetings on February 13 and 27, 2002, and Determinations of Effect were made by consensus on March 14, 2002. An Effect Memo was signed on August 8, 2002 (see Appendix G).

Coordination will be established with the US Department of the Interior (USDOI) regarding Section 4(f) issues.

6

List of Preparers

6.1 List of Preparers including their Responsibilities and Qualifications

■

Vanasse Hangen Brustlin

Name /Title: Mr. Bruce Tasker, P.E., Project Manager

Qualifications: A.S. in Civil Technology from Wentworth Institute, B.S. in Civil Engineering from New England College. Over 30 years experience in preliminary and final design.

Responsibilities: Consultant Team Manager. Overall supervision of corridor design development.

Name /Title: Dr. William J. Barry, Senior Environmental Scientist

Qualifications: Ph.D. in Zoology from Michigan State University with emphasis in ecology and animal behavior. Certified Wildlife Biologist and Certified Wetland Scientist (NH). Over 20 years experience as an environmental consultant.

Responsibilities: Chief Editor of the EIS. Overall supervision of the EIS.

Name /Title: Mr. Anthony Grande, P.E., Assistant Project Manager, Senior Highway Engineer

Qualifications: B.S. in Civil Engineering from the University of Lowell. Seventeen years experience in surveying and civil engineering primarily related to preliminary and final design of transportation facilities.

Responsibilities: Oversaw development of design for project alternatives.

Name /Title: Mr. Martin Kennedy, P.E., Senior Traffic Engineer

Qualifications: B.S. in Civil Engineering from Northeastern University.
Over 15 years experience in transportation planning, traffic operations, and traffic impact assessment.

Responsibilities: Oversaw traffic operations evaluation.

Name /Title: Mr. Howard Muise, Senior Transportation Planner

Qualifications: B.A. in Liberal Arts from Northeastern University,
M.S.P. in Transportation Planning from Florida State University.
Over 23 years experience in transportation planning, traffic impact studies, and travel demand projections.

Responsibilities: Oversaw development of ridership estimates for bus, rail, and HOV alternatives.

Name /Title: Mr. Michael Leo, P.E., L.L.S., Senior Hydraulic Engineer

Qualifications: B.S. in Structural Design and Construction Engineering Technology from Pennsylvania State University.
Twenty years experience in civil engineering and survey.

Responsibilities: Performed drainage design and floodplain analysis.

Name /Title: Mr. Senan Murdock, P.E., Highway Engineer

Qualifications: B.S. in Civil Engineering from University of Vermont.
Eleven years experience in highway engineering.

Responsibilities: Developed conceptual designs, including bike pathway.

Name /Title: Mr. Thomas Wholley, Air and Noise Specialist

Qualifications: B.S. in Civil Engineering from Lowell Technological Institute.
Over 25 years experience in preparing and reviewing air quality and noise analyses.

Responsibilities: Authored air quality and noise sections.

Name /Title: Mr. Peter Walker

Qualifications: B.A. in Biology and Environmental Studies, Williams College,
M.S. in Biology, University of Vermont,
Certified Wetland Scientist (NH).
12 years experience in environmental science and impact analysis.

Responsibilities: Reviewed wetlands and vernal pool analysis, co-authored visual resources, authored threatened and endangered species.

Name /Title: Mr. Jacob Tinus

Qualifications: B.S. in Biology, University of New York at Potsdam, M.S. in Environmental Resource Management and Administration, Antioch/New England Graduate School, Keene, New Hampshire.

Responsibilities: Conducted wetlands function and value assessments and wetlands mitigation site assessments. Authored wetlands and vernal pool descriptions and impact sections.

Name /Title: Mr. John Prenosil, Stream Ecologist

Qualifications: M.S. in Fisheries and Wildlife Ecology and B.S. in Environmental Biology and Toxicology from University of Massachusetts-Amherst. Seven years experience in environmental assessment and impact studies, ecological analysis, and related investigations.

Responsibilities: Conducted stream surveys and authored aquatic life sections.

■

Parsons Brinckerhoff Quade and Douglas, Inc

Name /Title: Mr. Samuel Seskin, Senior Supervising Planner

Qualifications: B.A. from Yale College and Master of Public Affairs in Urban Planning from Woodrow Wilson School of Public and International Affairs, Princeton University. Twenty-seven years experience in the assessment of transportation, economic development, land use, and economic impacts at all levels of government.

Responsibilities: Oversaw Expert Panel establishment and secondary impacts evaluation.

Name /Title: Mr. Allan Hodges, FAICP, Senior Planner

Qualifications: B.S. in Community Development from Southern Illinois University and M.S. in Urban Planning from Michigan State University. Over 33 years in urban and land use planning and preparation of environmental documentation meeting NEPA requirements for transportation and other infrastructure projects.

Responsibilities: Project Manager for Expert Panel recruiting, management and support and preparation of Secondary Land Use Impacts section of EIS.

Name /Title: Mr. Erik Balsly, Planner/GIS Analyst

Qualifications: B.S. and M.S. Degrees in City Planning (1997) from Massachusetts Institute of Technology.
Over four years experience in urban planning, geographic information systems and data analysis and reporting.

Responsibilities: Catalogued GIS data, produced maps and assisted in preparing the Briefing Book and obtaining additional data for the Expert Panel. Assisted in preparation of the Secondary Land Use Impacts section of the EIS.

■

ENSR International

Name /Title: Mr. Budd Titlow, Senior Environmental Scientist

Qualifications: Masters of Science degree. Also Professional Wetland Scientist.

Responsibilities: Project Manager for original environmental studies.

Personnel /Title: Ms. Julia Stearns, Environmental Scientist

Qualifications: B.S. in Biology.

Responsibilities: Conducted wetlands and wildlife studies.

Name /Title: Ms. Erin Haney, Environmental Scientist

Qualifications: B.S. in Environmental Science.

Responsibilities: Conducted wetlands, wildlife and T&E species studies and farmland evaluation.

Name /Title: Ms. Amy Schoenfeld, Environmental Scientist

Qualifications: B.S. in Biology.

Responsibilities: Conducted wetlands, wildlife and T&E species studies.

Name /Title: Ms. Carol-Anne Morse, Senior Geologist

Qualifications: B.A. in Earth Sciences from Lafayette College, PA and M.S. in Earth Science – Biogeochemical Systems from University of New Hampshire.

Responsibilities: Senior QA/QC prior to final report production. Project Management.

Name /Title: Ms. Cheryl Anne Cormier, Senior Geologist

Qualifications: B.S. in Geological Sciences from Salem State College, Massachusetts.

Responsibilities: QA/QC for report preparation; hazardous materials studies.

■

Great Bay Environmental Consulting

Name/Title: William R. Arcieri, Senior Water Resource Scientist

Qualifications: B.S. in Hydrology from University of New Hampshire and M.S. in Water Resources from University of Rhode Island. Over 15 years experience in the assessment of water quality impacts associated with stormwater and non-point pollution sources.

Responsibilities: Performed surface and groundwater impact analyses and authored same sections of the EIS.

■

Municipal Resources, Inc.

Name /Title: Mr. Stephen Griffin, AICP, Sr. Associate, Municipal Res. Inc

Qualifications: Bachelor of Architecture from NC State University, Masters of Regional Planning from UNC-Chapel Hill, and Masters of Urban Administration from UNC-Charlotte, with 25 years experience with public planning agencies and 8 years with MRI.

Responsibilities: Researched and authored socio-economic resources sections of the EIS.

■

Preservation Company

Name /Title: Ms. Lynne Monroe, Architectural Historian

Qualifications: B.F.A. from University of Pennsylvania, advanced study in Historic Preservation at Boston University. 19 years experience in historic preservation. Experience in historic architectural surveys and National Register nominations.

Responsibilities: Authored historic resources section.

■

New Hampshire Department of Transportation

Name /Title: Mr. David J. Brillhart, P.E., Director of Project Development

Qualifications: B.S. in Civil Engineering from University of New Hampshire. Over 20 years experience in transportation engineering.

Responsibilities: Overall project coordination and management.

Name /Title: Mr. William J. Cass, P.E., Chief Project Manager

Qualifications: B.S. in Civil Engineering from University of New Hampshire. 16 years experience in highway design engineering.

Responsibilities: Reviewed engineering design and traffic and transportation section.

Name /Title: Mr. John Butler, P.E., Supervisor Preliminary Design, Bureau of Highways

Qualifications: B.S. Civil Engineering from Clarkson College. 15 years experience in transportation engineering.

Responsibilities: Reviewed engineering design plans.

Name /Title: Dr. Subramanian N. Sharma, Traffic Research Engineer

Qualifications: Ph.D. in Civil Engineering, University of Massachusetts-Amherst 15 years experience in transportation planning and traffic analysis.

Responsibilities: Reviewed traffic and transportation section.

Name /Title: Mr. Marc Laurin, Senior Environmental Manager, Bureau of Environment

Qualifications: B.A. in Biology from Potsdam State University of New York. 14 years experience in environmental impact assessment and document preparation with specialized training in wetlands analysis.

Responsibilities: Reviewed environmental resources sections.

Name /Title: Dr. Joyce McKay, Historian, Bureau of Environment

Qualifications: B.A. in Anthropology from Indiana University, MA in History Museum Studies from Cooperstown Graduate

programs (SUNY – Oneonta),
PhD in Anthropology with specialization in historical archaeology from Brown University.
28 years experience in historic building management, archaeological survey, and Section 106 and 4(f) coordination.

Responsibilities: Wrote archaeological sections. Coordinated historical and archaeological review.

Name /Title: Mr. Charles Hood, Chief, Project Development Section Bureau of Environment

Qualifications: B.S. in Forestry from University of New Hampshire.
29 years experience in environmental impact assessment and document preparation, with specialized training in noise analysis.

Responsibilities: Principal Reviewer

Name /Title: Mr. Russell A. St. Pierre, Senior Environmental Manager, Bureau of Environment

Qualifications: A.A.S. in Forestry from Paul Smith College;
B.S. in Computer Science from Franklin Pierce College.
9 years experience in Air Quality Analysis and Noise Analysis.

Responsibilities: Reviewed air quality and noise analysis sections of EIS.

Name /Title: Mr. Dale O'Connell, Contamination Project Manager, Bureau of Environment

Qualifications: B.A. in Earth Science from University of New Hampshire
9 years of geotechnical experience,
3 years of hazardous materials investigation and analysis.

Responsibilities: Reviewed hazardous materials section of the EIS.

■

Federal Highway Administration

Name /Title: Mr. William F. O'Donnell., P.E., Environmental Program Manager

Qualifications: B.S. in Civil Engineering from Northeastern University.
Over 35 years experience with additional training in air and noise analysis, water quality, ecological impacts, historic and archaeological preservation, and hazardous materials studies.

Responsibilities: Principal Reviewer of highway design concepts and EIS preparation.

Name /Title:	Mr. Harry S. Kinter, Special Programs Manager
Qualifications:	B.A. in History from Pennsylvania State University. M.A. in History from Indiana University of Pennsylvania. 32 years experience including specialized training in appraisal, relocation assistance, administration and management, historic and archaeological preservation, hazardous materials studies, social impacts, aesthetic impacts, and landscaping.
Responsibilities:	Reviewed cultural resources, socio-economic, and hazardous materials sections.

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7

List of Agencies, Organizations and Persons to Whom Copies of the Draft Environmental Impact Statement Were Sent

7.1 Federal Agencies

Director, Office of Environmental Policy and Compliance
U.S. Department of the Interior
Main Interior Building, MS 2340
1849 C Street, NW
Washington, DC 20240

U.S. Environmental Protection Agency
Office of Federal Activities
NEPA Compliance Division, EIS Filing Section
Mail Code 2252-A
401 M Street, SW
Washington, DC 20460

Environmental Protection Agency, Region I
John F. Kennedy Federal Building
Mail Code RAA, Room 2203
Boston, MA 02203

Regional Administrator, Region I
Dept. of Housing & Urban Development
John F. Kennedy Building
Boston, MA 02203

Exec. Director, Advisory Council on Historic Preservation
Office of Planning and Review
Old P. O. Bldg., Suite 809
1100 Pennsylvania Avenue, NW
Washington, DC 20004

Office of the Secretary
Department of Agriculture
Room 200A
14th and Independence Avenue, SW
Washington, DC 20250

Regional Director – Region I
Room 462
Federal Emergency Mgmt. Agency
J.W. McCormack P.O. & Court House
Boston, MA 02109

U.S. Army Corps of Engineers
Environmental Analysis Branch
New England District
696 Virginia Road
Concord, MA 01742-2751

U.S. Army Corps of Engineers
Regulatory Branch
696 Virginia Toad
Concord, MA 01742-2751

Director, New England Region
Federal Aviation Administration
12 New England Executive Park
Burlington, MA 01803

Federal Energy Regulatory Comm.
Environmental Evaluation Branch
825 N. Capital Street, NE
Room 7102
Washington, DC 20426

Federal Railroad Administration
Intermodal Freight Industry Analysis
Division (RRP-13)
400 Seventh Street, SW
Washington, DC 20590

Regional Administrator
Federal Transit Administration
DOT Transportation Systems Center
Kendall Square
Cambridge, MA 02142-1093

Director
Office of Policy and Strategic Planning
National Oceanic & Atmospheric Admin.
U.S. Dept. of Commerce – Room 5805
14th and Constitution Avenue, NW
Washington, DC 20230

Regional Director
Northeastern Region
National Marine Fisheries Svcs
1 Blackburn Drive
Gloucester, MA 01930

Division of NEPA Affairs
Dept. of Energy
Room 4 G 064
1000 Independence Avenue, SW
Washington, DC 20585

Michael Bartlett
US Fish & Wildlife Service
70 Commercial Street
Suite 300
Concord, NH 03301-5087

U.S. Department of Interior
Geological Survey,
NH/VT District
361 Commerce Way
Pembroke, NH 03275

Richard Babcock, State Conservationist
Natural Resources Conservation Svc.
Federal Building
2 Madbury Rd.
Durham, NH 03824-2043

District Conservationist
Natural Resources Conservation Svc.
Hillsborough County Conservation District
Chappell Professional Center
468, Route 13 South
Milford, NH 03055

District Conservationist
Natural Resources Conservation Svc.
Rockingham County Conservation District
110 North Road
Brentwood, NH 03833-6614

7.2 State Agencies

Commissioner Stephen Taylor
NH Department of Agriculture
PO Box 2042
Concord, NH 03302-2042

Colis Adams, Administrator
Wetlands Bureau, Water Resources Division
NH Dept. of Environmental Services
6 Hazen Drive
Concord, NH 03301

James McConaha
NH Div. of Historic Resources
Dept. of Cultural Affairs
19 Pillsbury Street
Concord, NH 03301

Lionel Chute
Dept. of Resources & Econ. Dev.
NH Natural Heritage Program
172 Pembroke Road
Concord, NH 03301

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Parks and Recreation Division
Bureau of Off Highway Vehicles
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Philip J. O'Brien, Director
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NH Dept. of Environmental Services
6 Hazen Drive
Concord, NH 03301

Harry Stewart, Director
Water Division
NH Dept. of Environmental Services.
6 Hazen Drive
Concord, NH 03302-0095

Director, Division of Forest & Lands
NH Dept. of Resources & Economic Development
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Concord, NH 03301

Director, Div. of Parks & Recreation
NH Dept. of Resources & Economic Dev.
172 Pembroke Road
Concord, NH 03301

Director
Division of Air Resources
NH Dept. of Environmental Services
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Concord, NH 03301

Commissioner George M. Bald
NH Dept. of Resources and Economic Development
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Concord, NH 03301

Wayne Vetter, Executive Director
NH Fish & Game Department
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Concord, NH 03301

Office of the Attorney General
Eminent Domain Section
Bank Bldg., 33 Capitol Street
Concord, NH 03301

Governor Jeanne Shaheen
Office of the Governor
Room 208–214, State House
Concord, NH 03301

Executive Councilor Ruth L. Griffin
Room 207, State House
Concord, NH 03301

Executive Councilor Richard Wheeler
Room 207, State House
Concord, NH 03301

Executive Councilor Peter J. Spaulding
Room 207, State House
Concord, NH 03301

Executive Councilor Raymond S. Burton
Room 207, State House
Concord, NH 03301

Executive Councilor Raymond Wieczorek
Room 207, State House
Concord, NH 03301

State Library
20 Park Street
Concord, NH 03301

U.S. Representative John E. Sununu
1750 Elm Street
Manchester, NH 03104

U.S. Representative Charles Bass
142 North Main Street
Concord, NH 03301

U.S. Senator Judd Gregg
Norris Cotton Federal Building
Manchester, NH 03103

U.S. Senator Robert C. Smith
50 Philips Cote Street
Manchester, NH 03101

7.3 Others (Including Local and Regional Organizations)

Town of Salem
-- Board of Selectmen
-- Town Administrator
-- Planning Board
-- Conservation Commission
-- Town Library
-- Town Manager
-- Historic District Commission

Town of Windham
-- Board of Selectmen
-- Town Administrator
-- Planning Board
-- Conservation Commission
-- Town Library
-- Historic District/Heritage Commission

Cliff Sinott, Executive Director
Rockingham Planning Commission
156 Water Street
Exeter, NH 03833

Manindra Sharma, Executive Director
Southern New Hampshire Planning Commission
438 Dubuque St.
Manchester, NH 03102-3546

Andrew Singelakis, Executive Director
Nashua Regional Planning Commission
115 Main Street
PO Box 847
Nashua, NH 03061

Town of Derry
-- Board of Selectmen
-- Town Administrator
-- Planning Board
-- Conservation Commission
-- Town Library

Town of Londonderry
-- Board of Selectmen
-- Town Administrator
-- Planning Board
-- Conservation Commission
-- Town Library
-- Historic District Commission

City of Manchester
-- Mayor' Office
-- Board of Aldermen
--Planning Staff
--Public Works Staff
-- Conservation Commission
-- City Library

Audubon Society of New Hampshire
3 Silk Farm Road
Concord, NH 03301

Sierra Club - NH Chapter
3 Bicentenial Square
Concord, NH 03301

Conservation Law Foundation
Concord Advocacy Center
27 North Main Street
Concord, NH 03301-4930

Gar R. Carlson
Canobie Lake Protective Association
41 Lake Shore Road
Salem, NH 03079

J. Andrew Manning
Crystal Lake Preservation Association
27 Fremont Street
Manchester, NH 03013

AAA Northern New England
P.O. Box 3544
Portland, ME 04104

Society for the Protection of New Hampshire Forests
54 Portsmouth Street
Concord, NH 03301

Gaylord Burke, Executive Director
Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830-5000

Northern Middlesex Council of Governments
Gallagher Transportation Terminal, Floor 3B
115 Thorndike Street
Lowell, MA 01852-3308

Donna Nelson
Spickett River Flood Mitigation Committee
Massachusetts Department of Environmental Management
251 Causeway Street, Suite 600-700
Boston, MA 02114-2104

City of Methuen
Mayor's Office
Searles Building, Room 305
41 Pleasant Street, 3rd Floor
Methuen, MA 01844

Thomas F. Broderick, P.E.
Chief Engineer
Massachusetts Highway Department
Transportation Building – Suite 3510
10 Park Plaza
Boston, MA 02116-3973

James H. Scanlon
Secretary and MBTA Chairman
MA Exec. Ofc. of Transportation and Construction
Transportation Bldg., Suite 3150
10 Park Plaza
Boston, MA 02116-3969

8

Comments and Coordination

8.1 Advisory Task Force Meetings

At the outset of the project an Advisory Task Force (ATF) was created with the appointment by local governing boards of two people from each community. In addition, one person each from the RPC, SNHPC and NRPC served on the ATF. The ATF was established to assist the NHDOT in identifying issues and possible solutions regarding the project's purpose and need. Over time, the meetings evolved into largely public informational meetings involving ATF members, public officials and the general public, principally from the community within which the meeting was held. The dates, locations and topics of these ATF meetings were:

Meeting No.	Date/Location	Topics
1	Wednesday, March 22, 2000 Southern NH Planning Commission, Manchester	Kickoff Meeting - Role of Advisory Task Force and Scope of Project
2	Thursday, May 4, 2000 Londonderry Town Offices	Preliminary Overview of Rail Alternatives
3	Thursday, June 1, 2000 Fisk School, Salem	I-93 Engineering Concepts: Exit 1 and Exit 2
4	Thursday, June 22, 2000 Searles School, Windham	I-93 Engineering Concepts: Exit 3
5	Thursday, July 27, 2000 West Running Brook School, Derry	I-93 Engineering Concepts: Exit 4 to I-293
6	Thursday, September 14, 2000 McLaughlin Middle School, Manchester	I-93 Ridership, Rail, Bus, HOV
7	Thursday, October 12, 2000 Fisk School, Salem	HOV Ridership/Mode Options/ I-93 LOS
8	Thursday, November 9, 2000 West Running Brook School, Derry	Ridership Conclusions Reached; Exits 1-3 Design Concepts Recommendations

Meeting No.	Date/Location	Topics
9	Thursday, March 29, 2001 Fisk School, Salem	Conceptual Designs-MA line through Exit 2
10	Thursday, April 26, 2001 Windham Middle School, Windham	Conceptual Designs-Segment 2 of Phase III design (Exit 3 area)
11	Thursday, May 24, 2001 Matthew Thornton Elementary School, Londonderry	Conceptual Designs-Segment 3 of Phase III design (Exit 4 area)
12	Thursday, June 28, 2001 Londonderry	Conceptual designs-Segment 4 of Phase III design (Exit 5 area)

8.2 Resource Agency Meetings

Throughout the EIS process, a number of meetings were held with the various Federal and State resource agencies including USACOE, USEPA, USFWS, NHF&GD, NHDES, and NHDHR, to receive their guidance and feedback on issues related to the project. The dates, location and topics were:

Meeting No.	Date/Location	Topics
1	Wednesday, January 20, 2000 New Hampshire Department of Transportation, Concord	Project Overview
2	Wednesday, February 16, 2000 New Hampshire Department of Transportation, Concord	Project Status, Design Considerations – Exits 1 & 2
3	Wednesday, May 17, 2000 New Hampshire Department of Transportation, Concord	Review Conceptual Design Alternatives, Stateline through Exit 2
4	Wednesday, June 14, 2000 New Hampshire Department of Transportation, Concord	Review Conceptual Design Alternatives; Exit 2 through Exit 3 w/Park & Ride Lots
5	Wednesday, July 19, 2000 New Hampshire Department of Transportation, Concord	Review Conceptual Design Alternatives, Exit 4 to I-293
6	Wednesday, August 16, 2000 New Hampshire Department of Transportation, Concord	Ridership Options and Projections; Rail, Bus, HOV
7	Wednesday, September 20, 2000 West Running Brook Middle School, Derry	Mode Options/Ridership Effects on I-93 Level of Service; South of Exit 4
8	Wednesday, October 18, 2000 West Running Brook School, Derry	General Conclusions Regarding Alternate Modes of Transportation
9	Wednesday, January 17, 2001 New Hampshire Department of Transportation, Concord	Presented ridership study results and conclusions and design concept plans prepared for Rationale Report
10	Wednesday, February 14, 2001 New Hampshire Department of Transportation, Concord	Discussed Rationale Report, Traffic LOS
11	Thursday, March 15, 2001 Windham	Field review of Castle Reach mitigation site

Meeting No.	Date/Location	Topics
12	Wednesday, March 21, 2001 West Running Brook Middle School, Derry	Presented detailed design-MA line through Exit 2
13	Tuesday, April 10, 2001 Windham	Field review of Castle Reach mitigation site
14	Wednesday, April 18, 2001 West Running Brook Middle School, Derry	Presented detailed design-Segment 2 of Phase III design (Exit 3 area)
15	Wednesday, May 16, 2001 West Running Brook Middle School, Derry	Presented detailed design-Segment 3 of Phase III design (Exit 4 area)
16	Wednesday, June 20, 2001 West Running Brook Middle School, Derry	Presented detailed design-Segment 4 of Phase III design (Exit 5 area)
17	Wednesday, August 15, 2001 West Running Brook Middle School, Derry	Discussed Exits 1, 2, & 4
18	Thursday, September 19, 2001 West Running Brook Middle School, Derry	Exit 3 and 5 overview
19	Wednesday, October 17, 2001 West Running Brook Middle School, Derry	Discussed corridor resource impacts
20	Wednesday, November 21, 2001 NHDOT Design Conference Room	Discussed environmental matrix, wetlands quality, preferred alternative
21	Tuesday, January 8, 2002 I-93 Corridor	Field review of mitigation sites in Londonderry and Manchester
22	Wednesday, January 16, 2002 NHDOT Design Conference Room	Reported on the status of the wetland mitigation search process
23	Monday, January 28, 2002 I-93 Corridor	Field review of mitigation sites in Salem, Windham and Derry
24	Wednesday, February 20, 2002 Londonderry, I-93 Corridor	Field review advanced mitigation sites (L8, L8 Ext., and L12) in Londonderry
25	Wednesday, February 20, 2002 Fisk School, Salem	Meeting with public to discuss wetland mitigation proposals
26	Thursday, July 18, 2002 I-93 Corridor	Field review of wetlands

8.3 Local Public Officials and Public Informational Meetings

As part of the Public Participation Program, informational meetings were regularly held with officials and the general public in the five communities affected by the project. The dates, location, and topics were:

Meeting No.	Date/Location	Topics
1	Thursday, March 9, 2000 Town Offices, Londonderry	Public Officials Meeting: Project Purpose, Issues, Range of Alternatives, Schedule
2	Tuesday, March 13, 2000 Town Offices, Windham	Public Officials Meeting: Project Purpose, Issues, Range of Alternatives, Schedule
3	Thursday, March 16, 2000 Gerrity Community Center, Derry	Public Officials Meeting: Project Purpose, Issues, Range of Alternatives, Schedule
4	Wednesday, March 29, 2000 McLaughlin Middle School, Manchester	Public Officials Meeting: Project Purpose, Issues, Range of Alternatives, Schedule
5	Thursday, March 30, 2000 Town Offices, Salem	Public Officials Meeting: Project Purpose, Issues, Range of Alternatives, Schedule
6	Tuesday, November 28, 2000 McLaughlin Middle School, Manchester	Public Officials Meeting: Project Status, Ridership Study Conclusions, Alternatives to be carried forward, Schedule
7	Wednesday, November 29, 2000 Londonderry High School, Londonderry	Public Officials Meeting: Project Status, Ridership Study Conclusions, Alternatives to be carried forward, Schedule
8	Thursday, November 30, 2000 Windham Middle School, Windham	Public Officials Meeting: Project Status, Ridership Study Conclusions, Alternatives to be carried forward, Schedule
9	Thursday, December 7, 2000 West Running Brook Middle School, Derry	Public Informational Meeting: Presented ridership study results and conclusions and design concept plans prepared for Rationale Report.

Meeting No.	Date/Location	Topics
10	Wednesday, December 13, 2000 Fisk School, Salem	Public Informational Meeting: Presented ridership study results and conclusions and design concept plans prepared for Rational Report.
11	Monday, July 30, 2001 Salem High School, Salem	Public Informational Meeting: Salem-Exit 1 and 2
12	Tuesday, August 7, 2001 Windham Town Hall, Windham	Public Informational Meeting: Exit 3 revised concepts
13	Thursday, August 16, 2001 West Running Brook Middle School, Derry	Public Informational Meeting: Discuss area from Windham/Derry Town line through Exit 4 to Stonehenge Rd.
14	Tuesday, August 28, 2001 Windham Town Hall, Windham	Public Informational Meeting: Discuss area from Salem/Windham Town line to Windham/Derry Town line
15	Thursday, August 30, 2001 Londonderry High School	Public Informational Meeting: Discuss area from Derry/Londonderry Town line to Londonderry/Manchester Town line
16	Thursday, September 6, 2001 McLaughlin Middle School, Manchester	Public Informational Meeting: Discuss area from Exit 5 to Londonderry/Manchester Town line
17	Thursday, November 15, 2001 Salem High School Cafeteria	Public Informational Meeting: Identified the Department's preferred alternative through Salem
18	Monday, November 19, 2001 West Running Brook Middle School, Derry	Public Informational Meeting: Identified the Department's preferred alternative through Derry
19	Tuesday, November 20, 2001 Windham Middle School	Public Informational Meeting: Identified the Department's preferred alternative through Windham
20	Tuesday, November 27, 2001 Londonderry High School Cafeteria	Public Informational Meeting: Identified the Department's preferred alternative through Londonderry
21	Wednesday, November 28, 2001 McLaughlin Middle School, Manchester	Public Informational Meeting: Identified the Department's preferred alternative through Manchester

Meeting No.	Date/Location	Topics
22	Tuesday, June 25, 2002 McLaughlin Middle School, Manchester	Public Informational Meeting: Overview of Preferred Alternative through Manchester
23	Thursday, June 27, 2002 Salem High School	Public Informational Meeting: Overview of Preferred Alternative through Salem
24	Monday July 1, 2002 Windham Center School	Public Informational Meeting: Overview of Preferred Alternative through Windham
25	Tuesday, July 9, 2002 Londonderry Middle School	Public Informational Meeting: Overview of Preferred Alternative through Londonderry
26	Wednesday, July 10, 2002 West Running Brook Middle School, Derry	Public Informational Meeting: Overview of Preferred Alternative through Derry

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10.2 Acronyms

AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ASNH	Audubon Society of New Hampshire
ATF	Advisory Task Force

BMPs	Best Management Practices
CERCLA	Comprehensive Environmental Response, Compensation, Liability Act
CO	Carbon Monoxide
dBA	A-weighted decibels (noise levels)
DEIS	Draft Environmental Impact Statement
DOE	Determination of Eligibility
DOI	Department of Interior
DRED	New Hampshire Department of Resources and Economic Development
EM	Electromagnetic Geophysical Survey
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	US Department of Transportation, Federal Highway Administration
FPPA	Farmland Protection Policy Act
GPS	Global Positioning System
GTI	Guilford Transportation Industries
HABS	Historical American Buildings Survey
HAER	Historic American Engineering Record
HOV	High Occupancy Vehicles
HUD	Housing and Urban Development
I/M	Inspection and Maintenance
ISA	Initial Site Assessment
LEDPA	Least Environmentally Damaging Practicable Alternative
LOS	Level-of-Service
M&L	Manchester & Lawrence Branch
MBTA	Massachusetts Bay Transportation Authority
MEMA	Massachusetts Environmental Protection Agency
NAAQS	National Ambient Air Quality Standards
NEPA	Natural Environmental Policy Act
NHARD	New Hampshire Air Resources Division
NHDES	New Hampshire Department of Environmental Services

NHDHR	New Hampshire Department of Historical Resources
NHDOT	New Hampshire Department of Transportation
NHF&GD	New Hampshire Fish and Game Department
NHML	New Hampshire Mainline
NHNHI	New Hampshire Natural Heritage Inventory
NHOSP	New Hampshire Office of State Planning
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NOx	Nitric Oxide and Nitrogen Dioxide
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NWI	National Wetlands Inventory
OHM	Oil and/or Hazardous Materials
PSI	Preliminary Site Investigation
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROW	Right-of-Way
RSA	Revised Statues Annotated
SCS	Soil Conservation Service (currently NRCS)
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SNHPC	Southern New Hampshire Planning Commission
SOV	Single Occupancy Vehicle
STIP	Statewide Transportation Improvement Program
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TSM	Transportation Systems Management
USACOE	US Army Corps of Engineers
USDA	US Department of Agriculture
USDOT	United States Department of Transportation
USEPA	US Environmental Protection Agency

USFS	US Forest Service
USFWS	US Fish and Wildlife Services
USGS	US Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
WHPA	Wellhead Protection Area

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Project Commitments

In the Final EIS this chapter will describe the commitments that have been made by NHDOT and FHWA to mitigate the identified impacts associated with the Selected Alternative.