

General Sullivan Bridge Spaulding Turnpike Improvements

NHS-027-1(37), 11238

Newington and Dover, New Hampshire

PREPARED FOR



NH Department of Transportation

PO Box 483, 7 Hazen Drive Concord, NH 03302



U.S. Department of Transportation

Federal Highway Administration

US Department of Transportation Federal Highway Administration NH Division

53 Pleasant Street, Suite 2200 Concord, NH 03301 PREPARED BY



VHB

2 Bedford Farms Drive, Suite 200 Bedford, NH 03110

APRIL 2021

FHWA-NH-EIS-06-01-DS Newington-Dover

General Sullivan Bridge Spaulding Turnpike Improvements Strafford and Rockingham Counties, New Hampshire

Draft Supplemental Environmental Impact Statement
Submitted Pursuant to 42 USC 4332(2)(c),
49 USC 303, 16 USC 470(f) and 33 USC 1334
by the
US Department of Transportation Federal Highway Administration

and

New Hampshire Department of Transportation

Cooperating Agencies

US Army Corps of Engineers, US Coast Guard, US Environmental Protection Agency, and US Fish and Wildlife Service

Comments on this Draft Supplemental Environmental Impact Statement (DSEIS) are due by June 7, 2021 and should be sent to the following personnel, who may also be contacted for additional information concerning this document:

Mr. Jamison Sikora

NH Division Environmental Program Manager

Federal Highway Administration 53 Pleasant Street, Suite 2200 Concord, NH 03301

(603) 410-4870

Jamie.Sikora@dot.gov

Ms. Jennifer Reczek, P.E.

Project Manager

NH Department of Transportation

PO Box 483 | 7 Hazen Drive

Concord, NH 03302 (603) 271-3401

Jennifer.Reczek@dot.nh.gov

Abstract: The proposed project involves the evaluation of alternatives for the rehabilitation or replacement of the historic General Sullivan Bridge (GSB), which spans the navigational channel of Little Bay in Newington, Strafford County, New Hampshire and Dover, Rockingham County, New Hampshire. Options for the GSB were previously reviewed in a 2007 Final Environmental Impact Statement (FEIS) and a 2008 Record of Decision (ROD) which were produced by NHDOT and the FHWA under the National Environmental Policy Act (NEPA). The purpose of this project is to provide recreational access and connectivity between Newington and Dover, across Little Bay, for pedestrian and non-motorized use.

This DSEIS serves as a supplement to the 2007 FEIS. This DSEIS considers changes to the rehabilitation of the GSB, including an updated reasonable range of alternatives, as well as consideration of environmental impacts that were not previously evaluated in the original 2007 FEIS. FHWA has identified a Preferred Alternative based on this DSEIS and input from federal and state agencies; state, town, and local officials; and the public. NHDOT and FHWA may complete the NEPA environmental review process by issuing a single document that consists of the Final Supplemental Environmental Impact Statement (FSEIS) and Supplemental Record of Decision (SROD) pursuant to 49 USC 304a(b) [and 23 USC 139(n)(2)] unless FHWA determines that statutory criteria or practicability considerations preclude issuance of such a combined document.

PATRICK A BAUER Digitally signed by PATRICK A BAUER Date: 2021.04.02 11:36:48 -04'00'

Federal Highway Administration

Date: 4/2/2021 Patrick Bauer

New Hampshire Division Administrator

New Hampshire Department of Transportation

Date: 3/31/2021 Peter Stamnas

Director of Project Development

Table of Contents

	Execu	Itive Summary	ES-1
1	Intro	duction	1-1
	1.1	Study Area	1-2
	1.2	Description of the General Sullivan Bridge	1-2
	1.3	Purpose and Need	1-2
	1.4	Requirements for Combined FSEIS/SROD	1-7
2	Alteri	natives	2-1
	2.1	Preliminary Alternatives	2-1
	2.2	Screening Criteria and Results	
	2.3	Reasonable Alternatives	
	2.4	Other Project Elements	
3	Affec	ted Environment and Environmental Consequences	3-1
	3.1	Wetlands and Surface Waters	3-1
	3.2	Water Quality and Pollutant Loading	3-7
	3.3	Floodplain and Hydrodynamics	
	3.4	Wildlife and Fisheries	
	3.5	Threatened and Endangered Species	3-19
	3.6	Farmlands	3-22
	3.7	Air Quality	3-23
	3.8	Noise	3-25
	3.9	Parks, Recreation, and Conservation Lands	3-26
	3.10	Cultural Resources	3-31
	3.11	Contamination and Hazardous Materials	3-45
	3.12	Visual Resources	3-49
	3.13	Construction Impacts	3-53
	3.14	Social and Economic Resources and Environmental Justice	3-56
	3.15	Navigation	3-59
	3.16	Relationship of Local Short-term Uses vs. Long-term Productivity	3-64
	3.17	Irreversible and Irretrievable Commitment of Resources	3-67
	3.18	Cumulative Impacts	3-67
4	Progr	rammatic Section 4(f) Evaluation for the Use of Historic Bridges	4-1
	4.1	Introduction	4-1
	4.2	Proposed Action	4-1
	43	Description of Section 4(f) Properties	4-2

	4.7	Coordination and Public Participation4-7		
	4.8	Preliminary Determination4-8		
5	Projec	t Commitments5-1		
	5.1 5.2	Status of the 2007 FEIS and 2008 ROD Environmental Commitments5-1 New Recommended Commitments5-1		
5	Federa	l and State Actions Required6-1		
	6.1 6.2	Federal Compliance 6-1 State Compliance 6-1		
7	Public,	Agency and Tribal Coordination7-1		
3	Refere	nces Cited8-1		
Ð	List of Preparers9-1			
LO	Distribution of the Draft Supplemental EIS10-1			
l1	Comm	ents and Coordination11-1		

Impacts to Section 4(f) Properties......4-4

Programmatic Section 4(f) Evaluation for the Use of Historic Bridges......4-5

Measures to Minimize Harm4-7

4.4 4.5

4.6

Table of Contents

Tables

Table No.	Description	Page
Table ES-1	Summary and Comparison of Environmental Impacts	ES-3
Table 2.1-1	General Sullivan Bridge SEIS – Roadway and Multi-Use Path Width Criteria	2-2
Table 2.2-1	Alternatives Analysis Screening Matrix	2-5
Table 3.1-2	Permanent and Temporary Wetland Impacts	3-4
Table 3.9-1	Bridge Pedestrian and Bicycle Count Data (Summer 2016)	3-27
Table 3.10-1	2018 PAF Update: Surveyed Properties	3-34
Table 3.10-2	Findings of the Phase IB Intensive Archaeological Investigation	3-41
Table 3.11-1	NHDES Listed Properties within 1,000 feet of the Study Area	3-46
Table 3.14-1	Population Characteristics within the EJ Study Area	3-57
Table 3.14-2	Initial Capital and Life Cycle Cost Estimate Summary	3-57
Table 4.1-1	Summary of Cultural Resource Agency Meetings and Public Coordination	4-9
Table 6.1-1	Required Federal Permits, Approvals, Certifications or Regulatory Compliance	6-1
Table 6.1-2	Required State Permits, Approvals, Certifications or Regulatory Compliance	6-1
Table 7.1-1	Summary of Agency Meetings and Public Coordination	7-2

Figures

Figure 1.2-2	Existing Conditions
3	Comparison of Multi-Use Path Widths
_	Alternatives Screening Process
	Alternative 1 Conceptual Design Renderings
_	Alternative 3 Conceptual Design Renderings
•	Alternative 6 Conceptual Design Renderings
•	Alternative 7 Conceptual Design Renderings
_	Alternative 9 Conceptual Design Renderings
_	Other Project Elements
•	Wetland and Surface Water Resources
_	Intertidal and Subtidal Habitat Types
•	Floodplain and Hydrodynamics
•	NHF&GD Wildlife Action Plan Habitats
•	NHF&GD Wildlife Action Plan Habitat Tiers
Figure 3.9-1	Parks, Recreation, and Conservation Lands
Figure 3.10-1	Area of Potential Effects
Figure 3.10-2	Cultural Resources
Figure 3.11-1	Hazardous Materials
Figure 3.15-1	Navigation
Figure 3.15-2	Navigational Clearances, Alternatives 1 and 3
Figure 3.15-3	Navigational Clearances, Alternatives 6 and 7
Figure 3.15-4	Navigational Clearances, Alternative 9
Appendices	
• •	
	Site Photographs
• •	Reasonable Alternatives Typical Section Plans
• •	Preliminary Construction Impact Plans
• •	Greater Atlantic Regional Fisheries Office (GARFO) CoordinationNH Natural Heritage Bureau (NHNHB) Coordination
	NH Natural Heritage Bureau (NHNHB) Coordination
	US Fish & Wildlife Service (USFWS) Coordination
	Section 106 Materials
	US Coast Guard Coordination
	Hilton Park Temporary Occupancy Letter
	Newington-Dover 11238 FEIS Environmental Commitments (2007)

Acronyms

AASHTO	American Association of State Highway and Transportation Officials	MOA	Memorandum of Agreement
ACS	American Community Survey	NAAQS	National Ambient Air Quality Standards
ADA	Americans with Disabilities Act	NEPA	National Environmental Policy Act
AGQS	Ambient Groundwater Quality Standards	NLEB	Northern Long-eared bat
APE	Area of Potential Effect	NHDES	NH Department of Environmental Services
ATF	Advisory Task Force	NHDHR	NH Division of Historical Resources
BMPs	Best Management Practices	NHDOT	NH Department of Transportation
CEQ	Council on Environmental Quality	NHF&GD	NH Fish & Game Department
CFR	Code of Federal Regulations	NHNHB	NH Natural Heritage Bureau
DEIS	Draft Environmental Impact Statement	NHPA	National Historic Preservation Act of 1966
EFH	Essential Fish Habitat	NOAA	National Oceanic and Atmospheric Administration
EJ	Environmental Justice	ОНМ	Oil and/or hazardous materials
EO	Executive Order	OSHA	Occupational Safety and Health Administration
EPA	US Environmental Protection Agency	PFOA	Perfluorooctanioic acid
ESA	Endangered Species Act	PFOS	Perfluorooctane sulfonic acid
FEIS	Final Environmental Impact Statement	ROD	Record of Decision
FEMA	Federal Emergency Management Agency	RSA	Revised Statutes Annotated
FHWA	Federal Highway Administration	SEIS	Supplemental Environmental Impact Statement
FIRM	Flood Insurance Rate Map	SHPO	State Historic Preservation Officer
FIS	Flood Insurance Study	SMP	Soil and/or Sediment Management Plan
GMZ	Groundwater Management Zone	SROD	Supplemental Record of Decision
GSB	General Sullivan Bridge	TBZ	Tidal buffer zone
HOTL	Highest Observable Tide Line	TSL	Type Span and Location
IPaC	Information for Planning and Consultation	UNH	University of New Hampshire
LBB	Little Bay Bridge	USCG	US Coast Guard
LEP	Limited English Proficiency	USDOT	US Department of Transportation
LRS	Limited Reuse Soils	USFWS	US Fish & Wildlife Service
LWCF	Land and Water Conservation Fund	TBZ	Tidal buffer zone