Appendix G – NH Fish & Game Department (NHF&GD) Coordination

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

July 15, 2019

Cheri Patterson
Marine Program Supervisor
NH Fish and Game Department
225 Main Street
Durham NH 03824

RE: Marine Fisheries Resources
General Sullivan Bridge Project
Spaulding Turnpike / Little Bay Bridge: NHS-027-1(037), 11238S
Newington and Dover, New Hampshire

Dear Ms. Patterson:

The New Hampshire Department of Transportation (NHDOT) is planning to rehabilitate or replace the General Sullivan Bridge (GSB) located over the Little Bay. The GSB was most recently used as a pedestrian bridge connecting Dover with Newington over the Little Bay, and NHDOT is seeking to continue to provide pedestrian/bike access along this route. In preparation for the rehabilitation/replacement work, NHDOT and FHWA are preparing a Supplemental Environmental Impact Statement (SEIS) for the project. The work is proposed to involve in-water work within the Little Bay, therefore the SEIS will consider an analysis of the project's impacts to fisheries resources. Below is a brief project overview, followed by a description of the fisheries analyses conducted to date.

Project Overview
The GSB was built in 1934 and connected Newington and Dover, New Hampshire, over the Little Bay. Although originally designed to support two lanes of highway traffic over the mouth of the Little Bay, the bridge was closed to vehicular traffic in 1984, when the adjacent Little Bay Bridge, located east of the GSB, was completed. Now the bridge is closed even to pedestrian and bicycle traffic due to a recent inspection completed in September 2018, which found additional deterioration of a critical floor beam under the bridge deck.

The condition of the GSB has been declining over the last few decades. To address this issue, options for the rehabilitation or replacement of 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 Federal Highway Administration (FHWA) under the National Environmental Policy Act (NEPA). In the ROD, NHDOT and FHWA committed to maintain pedestrian/bicycle connectivity between Dover and Newington, and to accomplish that by rehabilitating the GSB.

Since the 2008 ROD, further inspections and studies of the GSB condition were completed to prepare for the rehabilitation project. The information gathered by these inspections and studies revealed that the GSB was more deteriorated than originally thought. Bridge rehabilitation would have very high costs, high risks, and a limited life span. Therefore, NHDOT and FHWA are proceeding to further evaluate rehabilitation and consider other alternatives; these alternatives and their environmental and cultural resource impacts will be presented in a Supplemental Environmental Impact Statement (SEIS) currently in preparation.

Of the various alternatives being considered in the SEIS, the current Preferred Alternative is Alternative 9 – Superstructure Replacement (Girder Option), which involves complete removal and replacement of the GSB superstructure. Under Alternative 9, the GSB superstructure would be replaced with a steel girder system with a structural steel frame extending from the bottom of the girders to the top of the existing GSB piers. Alternative 9 would reuse the existing piers without requiring significant modifications. This approach eliminates permanent impacts to intertidal and subtidal habitat. Plans of the preferred alternative are attached.

Construction of the preferred alternative is expected to take approximately 18 months. Construction would begin with a one- to two-week period of installing a temporary causeways and trestles west of the existing GSB for staging and equipment access during the bridge replacement work. The bridge would be removed and replaced using these causeways, the trestles, and water craft. Upon completion of the bridge replacement, the causeways and trestles would be removed, and the area restored to pre-construction conditions, which is anticipated to take approximately one to two weeks. The causeways and trestles are considered a temporary impact within the Little Bay and are the only in-water work that is proposed. We've attached a plan that depicts the construction phase impacts but note that these plans are for planning purposes only and may be modified during construction if required to allow for safe and efficient contractor access.

Fisheries Resources Summary
The Little Bay is designated as essential fish habitat (EFH) for several fish species. Therefore, a NOAA Fisheries EFH Assessment Worksheet was completed for the proposed project, which determined that the preferred alternative would not have a substantial adverse effect on EFH. The EFH Assessment Worksheet was submitted to Mike Johnson at NOAA, who concurred with the finding of no substantial adverse effect and indicated that NOAA did not have any conservation recommendations for the project.

The project area is also located within designated critical habitat for Atlantic sturgeon (*Acipenser oxyrhynchus oxyrhynchus*) and within the estimated range for shortnose sturgeon (*Acipenser brevirostrum*) according to the ESA Section 7 Mapper.[1] Based on the work that is anticipated to be completed to rehabilitate or replace the bridge, NOAA concurred that the project "*may affect but is not likely to adversely affect*" Atlantic/shortnose sturgeon critical habitat.

NHDOT would like to give the NH Fish and Game Department (NHFGD) opportunity to add to the discussion of rare, threatened, or endangered aquatic species that occur within the project area, or to voice any concerns about the proposed project's impact on fisheries habitat or species based on known NHFGD records. Please let me know if you have any specific concerns or recommendations for inclusion in the SEIS. We look forward to coordinating with you on this project.

Sincerely,

Marc G. Laurin
Senior Environmental Manager
Room 109 – Tel (603) 271-4044
E-mail – marc.laurin@dot.nh.gov

Attachments:
Figure 1 – USGS Location Map
Figure 2 – Conceptual Design Rendering
Figure 3 – Habitat Types
Existing Condition Plan
Alternative 9 Elevation and Typical Sections
Alternative 9 Construction Impact Plan

[1] NOAA Fisheries. 2018. *Section 7 Mapper*. Greater Atlantic Region. Accessed January 11, 2019 <https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27 >.

cc: Keith Cota, NHDOT
Jamie Sikora, FHWA
Carol Henderson, F&G
P. Walker, VHB
G. Goodrich, VHB

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New Hampshire DOT
Department of Transportation

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

July 22, 2019

Kim Tuttle
NH Fish and Game Department
11 Hazen Drive
Concord, NH 03301

RE: NH DataCheck Report (NHB19-2211)
General Sullivan Bridge Project
Spaulding Turnpike / Little Bay Bridge: NHS-027-1(037), 11238S
Newington and Dover, New Hampshire

Dear Ms. Tuttle:

The New Hampshire Department of Transportation (NHDOT) is planning to rehabilitate or replace the General Sullivan Bridge (GSB) located over the Little Bay. The GSB was most recently used as a pedestrian bridge connecting Dover with Newington over the Little Bay, and NHDOT is seeking to continue to provide pedestrian/bike access along this route. In preparation for the rehabilitation/replacement work, NHDOT and FHWA are preparing a Supplemental Environmental Impact Statement (SEIS) for the project. The SEIS will consider an analysis of the project's impacts to rare, threatened, or endangered species known to occur within the project area. Below is a brief project overview, followed by a description of state-listed threatened or endangered species managed by the NH Fish & Game Department (NHF&G).

Project Overview
The GSB was built in 1934 and connected Newington and Dover, New Hampshire, over the Little Bay. Although originally designed to support two lanes of highway traffic over the mouth of the Little Bay, the bridge was closed to vehicular traffic in 1984, when the adjacent Little Bay Bridge, located east of the GSB, was completed. Now the bridge is closed even to pedestrian and bicycle traffic due to a recent inspection completed in September 2018, which found additional deterioration of a critical floor beam under the bridge deck.

The condition of the GSB has been declining over the last few decades. To address this issue, options for the rehabilitation or replacement of 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 Federal Highway Administration (FHWA) under the National Environmental Policy Act (NEPA). In the ROD, NHDOT and FHWA committed to maintain pedestrian/bicycle connectivity between Dover and Newington, and to accomplish that by rehabilitating the GSB.

Since the 2008 ROD, further inspections and studies of the GSB condition were completed to prepare for the rehabilitation project. The information gathered by these inspections and studies revealed that the GSB was more deteriorated than originally thought. Bridge rehabilitation would have very high costs, high risks, and a limited life span. Therefore, NHDOT and FHWA are proceeding to further evaluate rehabilitation and consider other alternatives; these alternatives and their environmental and cultural resource impacts will be presented in a Supplemental Environmental Impact Statement (SEIS) currently in preparation.

Of the various alternatives being considered in the SEIS, the current Preferred Alternative is Alternative 9 – Superstructure Replacement (Girder Option), which involves complete removal and replacement of the GSB superstructure. Under Alternative 9, the GSB superstructure would be replaced with a steel girder system with a

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TELEPHONE: 603-271-3734 • FAX: 603-271-3914 • TDD: RELAY NH 1-800-735-2964 • INTERNET: WWW.NHDOT.COM

structural steel frame extending from the bottom of the girders to the top of the existing GSB piers. Alternative 9 would reuse the existing piers without requiring significant modifications. This approach eliminates permanent impacts to intertidal and subtidal habitat. Plans of the Preferred Alternative are attached.

Construction of the Preferred Alternative is expected to take approximately 18 months. Construction would begin with a one- to two-week period of installing a temporary causeways and trestles west of the existing GSB for staging and equipment access during the bridge replacement work. The bridge would be removed and replaced using these causeways, the trestles, and water craft. Upon completion of the bridge replacement, the causeways and trestles would be removed, and the area restored to pre-construction conditions, which is anticipated to take approximately one to two weeks. The causeways and trestles are considered a temporary impact within the Little Bay and are the only in-water work that is proposed. We've attached a plan that depicts the construction phase impacts, but note that these plans are for planning purposes only and may be modified during construction if required to allow for safe and efficient contractor access.

NHF&G Species Resources Summary

A NH Natural Heritage Bureau (NHNHB) DataCheck report was generated for the project on July 18, 2019 (NHB19-2211). This report identified the presence of Atlantic sturgeon (*Acipense oxyrinchus*), shortnose sturgeon (*Acipenser brevirostrum*), and cliff swallow (*Petrochelidon pyrrhonota*) within the project area. Provided below is a brief discussion regarding these species.

Atlantic and Shortnose Sturgeon

The NHNHB report identified Atlantic sturgeon and shortnose sturgeon within the vicinity of the project, which is consistent with the mapping of designated critical habitat for these species according to the USFWS ESA Section 7 Mapper.[1] Based on the work that is anticipated to be completed to rehabilitate or replace the bridge, NOAA has concurred that the project "*may affect but is not likely to adversely affect*" Atlantic/shortnose sturgeon critical habitat per correspondence with William Barnhill, NOAA, June 18, 2019.

Additionally, NHDOT has submitted a letter to Cheri Patterson with the NHF&G Marine Program regarding the proposed project and its potential impacts on sturgeon and other marine species. NHDOT is currently awaiting a response from the NHF&G Marine Program.

Cliff Swallow

The NHNHB report indicates that 18 cliff swallow nests were observed on the General Sullivan Bridge as of 2009. NHDOT requests your review of the potential effects of the project on cliff swallows that may still nest on the GSB and adjacent Little Bay bridge. We have attached additional information regarding the project for your review. We would be interested to receive your recommendations on project considerations or mitigation to limit the potential impact to this species.

Please let me know if you have any specific concerns or recommendations for inclusion in the SEIS. We look forward to coordinating with you on this project.

Sincerely,

Marc Laurin
Senior Environmental Manager
Room 109 – Tel (603) 271-4044
E-mail – marc.laurin@dot.nh.gov

[1] NOAA Fisheries. 2018. *Section 7 Mapper*. Greater Atlantic Region. Accessed January 11, 2019 <https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27 >.

Attachments:
NHNHB DataCheck Report (NHB19-2211)
Figure 1 – USGS Location Map
Figure 2 – Conceptual Design Rendering
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Alternative 9 Elevation and Typical Sections
Alternative 9 Construction Impact Plan

cc: Keith Cota, NHDOT
Jamie Sikora, FHWA
P. Walker, VHB
G. Goodrich, VHB

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Matras, Lindsay

From: Henderson, Carol <Carol.Henderson@wildlife.nh.gov>
Sent: Wednesday, November 6, 2019 10:12 AM
To: Laurin, Marc; Pamela Hunt
Cc: Cota, Keith; Johnson, Steve; Corcoran, John; Landry, Robert; Nyhan, Kevin; Crickard, Ronald; Boodey, Tim; Beato, Hannah; Walker, Peter; Matras, Lindsay
Subject: RE: [External] RE: Cliff Swallow: General Sullivan Bridge (NHDOT 11238S)

Hi Marc:

It is unfortunate that DOT is not considering the use of these clay nests for this bridge. I understand the maintenance concerns for an active vehicle bridge but sine this bridge is scheduled to be for pedestrian usage only, will it still need the level of maintenance of cleaning and structural maintenance that is required for an active non-motorized bridge? I would think it would be minimal maintenance for a historic pedestrian bridge but I will acquiesce to DOT for guidance. Thank you, Carol

From: Laurin, Marc <Marc.Laurin@dot.nh.gov>
Sent: Tuesday, November 5, 2019 1:24 PM
To: Pamela Hunt <phunt@nhaudubon.org>
Cc: Henderson, Carol <Carol.Henderson@wildlife.nh.gov>; Cota, Keith <Keith.Cota@dot.nh.gov>; Johnson, Steve <Steve.Johnson@dot.nh.gov>; Corcoran, John <John.Corcoran@dot.nh.gov>; Landry, Robert <Robert.Landry@dot.nh.gov>; Nyhan, Kevin <Kevin.Nyhan@dot.nh.gov>; Crickard, Ronald <Ronald.Crickard@dot.nh.gov>; Boodey, Tim <Tim.Boodey@dot.nh.gov>; Beato, Hannah <hbeato@VHB.com>; Walker, Peter <PWalker@VHB.com>; Matras, Lindsay <lmatras@vhb.com>
Subject: RE: [External] RE: Cliff Swallow: General Sullivan Bridge (NHDOT 11238S)

Pam,

Regarding the proposal for incorporating Cliff Swallows attractants on the proposed pedestrian bridge over the Little Bay in Newington and Dover.

I have been in touch with the Administrator of the Department's Bureau of Bridge Maintenance and of the Bureau of Turnpikes, who would be responsible for the future maintenance of the bridge. They have expressed concerns with this proposal as the Department discourages nesting of any kind on a bridge since it inevitably leads to accumulations of guano, which then needs to be cleaned off the structure, and creates issues with maintenance or construction occurring during nesting season. In addition, nesting season occurs during the timeframe when the Department would be washing the bridges and bridge seats. Even if the nests are not directly located where the washing will occur, the work is usually considered disruptive to the nesting.

As such, the Department will not entertain this proposal at this time.

If you would like to further discuss this proposal, please contact me or Keith Cota, the Project Manager (keith.cota@dot.nh.gov or 217-1615).

Marc Laurin
Senior Environmental Manager
Bureau of Environment
NH Department of Transportation
(603) 271-4044

From: Matras, Lindsay [mailto:lmatras@vhb.com]
Sent: Monday, November 04, 2019 10:58 AM
To: Pamela Hunt
Cc: Laurin, Marc; Walker, Peter; Beato, Hannah; Henderson, Carol
Subject: FW: [External] RE: Cliff Swallow: General Sullivan Bridge (NHDOT 11238S)
Importance: High

Hi Pam,

Thank you for reaching out. I will put you in touch with Marc Laurin at NHDOT (cc'd in this email) to complete collaboration regarding cliff swallows on the General Sullivan Bridge.

Thanks!

Lindsay Matras
Environmental Scientist

P 603.391.3916
www.vhb.com

From: Pamela Hunt <phunt@nhaudubon.org>
Sent: Monday, November 4, 2019 10:36 AM
To: Matras, Lindsay <lmatras@vhb.com>
Cc: Kim Tuttle (Kim.Tuttle@wildlife.nh.gov) <Kim.Tuttle@wildlife.nh.gov>; Henderson, Carol <Carol.Henderson@wildlife.nh.gov>
Subject: [External] RE: Cliff Swallow: General Sullivan Bridge (NHDOT 11238S)
Importance: High

Hey Lindsay,

Not having heard anything in response to my last email on the subject of Cliff Swallows on the General Sullivan Bridge, I figured I'd check in again. While I realize that the current absence of swallows at that location places no requirements on DOT, I still think it'd be a worthy opportunity to try collaborating. I also realize that you and VHB would probably not be directly involved in anything tangential like I proposed, but could you perhaps put me in touch with the appropriate person or persons at NHDOT so we can determine if there's any possibility of moving forward on the idea of installing artificial nests?

Thank you very much,
Pam

Pamela D. Hunt, Ph.D.
Avian Conservation Biologist
New Hampshire Audubon
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phunt@nhaudubon.org

Please consider making a donation to support the work of the Conservation Department

"We have a hunger of the mind. We ask for all the knowledge around us and the more we get, the more we desire."
– Maria Mitchell, 19th Century American Astronomer

From: Pamela Hunt
Sent: Tuesday, October 08, 2019 3:23 PM
To: 'Matras, Lindsay'
Cc: Kim Tuttle (Kim.Tuttle@wildlife.nh.gov); Henderson, Carol
Subject: RE: Cliff Swallow: General Sullivan Bridge (NHDOT 11238S)

Hi Lindsay,

Sorry we keep missing each other on the phone, so thanks for sending me this email!

Cliff Swallows don't currently nest on the General Sullivan bridge, and seem to have abandoned the site around 2012-13 (there has been some ongoing confusion over the name of the bridge they used to use, and they have used the GS, Little Bay, and Scammel bridges over the years). As such, there is no danger of disturbing the birds during the work on the GSB.

HOWEVER, given the historic use by Cliff Swallows, and some tendency for this species to return to former colony sites after an absence, we were wondering if there was any possibility of incorporating Cliff Swallow attractants into the redesign/replacement. This would involve installation of clay "starter nests" to which the swallows add new mud to form a complete nest. I have a colleague who designed these nests, and who is currently working indirectly with Mass DOT on a somewhat similar project. If you think this is something that DOT might be amendable to, I can get more info from the Massachusetts side of things and we can go from there. In the long run, it wouldn't impact the bridge's design or construction significantly, and just might help out a state threatened species.

Happy to talk more about this as needed.

Pam

Pamela D. Hunt, Ph.D.
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New Hampshire Audubon
84 Silk Farm Road
Concord, NH 03301

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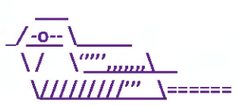

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"We have a hunger of the mind. We ask for all the knowledge around us and the more we get, the more we desire."
– Maria Mitchell, 19th Century American Astronomer

From: Matras, Lindsay [mailto:lmatras@vhb.com]
Sent: Tuesday, October 08, 2019 11:18 AM
To: Pamela Hunt
Cc: mlaurin@dot.state.nh.us; Henderson, Carol; Walker, Peter; Beato, Hannah
Subject: Cliff Swallow: General Sullivan Bridge (NHDOT 11238S)

Hello Pam,

NHDOT is planning to rehabilitate or replace the General Sullivan Bridge locate over the Little Bay in Newington and Dover. The NH Natural Heritage Bureau DataCheck report generated for this project identified cliff swallow (*Petrochelidon pyrrhonota*) within the project area.

It is my understanding that Carol Henderson from the NH Fish & Game Department reached out to you recently about this project, and you provided the information below regarding nest locations on the General Sullivan Bridge:

2009: sw "face" of bridge, mostly on nw end or in middle (~20 nests)
2010: most nests appeared to be on the NW end
2011: maybe down to <10 nests, more concentrated in the center of the span
2012: apparently 7 nests, but location not specified

We are currently preparing a Supplemental Environmental Impact Statement (EIS) for the project's Preferred Alternative (Superstructure Replacement – Girder). Since cliff swallow nests would be disturbed during the proposed superstructure replacement, if present, I was wondering if you could provide some recommendations for determining the current locations of cliff swallow nests on the General Sullivan Bridge and what your recommendations would be when these nests are disturbed (i.e., placement of clay nests). Attached is a conceptual design rendering and design plans of the Preferred Alternative for reference.

Please let me know if you have any questions or need any additional information. We appreciate any input you are able to provide.

Lindsay Matras, WSA
Environmental Scientist

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