

Reid Middleton

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June 2, 2020

Mr. Ron Wilcox
Project Manager
Seattle District Regulatory Branch
US Army Corps of Engineers
4735 East Marginal Way South Seattle, Washington 98124-3755

Subject: Shelter Bay Marina Company – Shelter Bay Marina Dredging
Permit NWS-2014-684 Modification Request

Mr. Wilcox,

Shelter Bay Company in La Conner has a current permit (NWS-2014-684) to replace their aging marina floats docks, including docks A through I and perform maintenance dredging in four Dredge Material Management Units (DMMUs).

Shelter Bay would like to slightly modify the existing approved dredging DMMUs (1 through 4) as well as add two additional DMMUs (5 and 6) to focus on the areas that require dredging within the Shelter Bay Marina. The dredging volume would increase from 37,400 cubic yards to 55,851 cubic yards. There is also one small area in the main basin with approximately 200 cubic yards of dredge volume that will be disposed of at an upland site that has been added to the project. All other project elements would remain the same as previously approved.

These modifications are shown in the attached pdf for your information. The attached JARPA drawing sheet 3 would replace the existing sheet 3 in the currently approved permit JARPA drawings. There would be a net increase in dredge material of 18,451 cubic yards as well as an increase in dredging duration of approximately 1 week. All dredging would still take place within the approved in-water work window.

Also attached is a memo from Grette Associates to update the Biological Evaluation (BE) in regards to this additional dredging work.

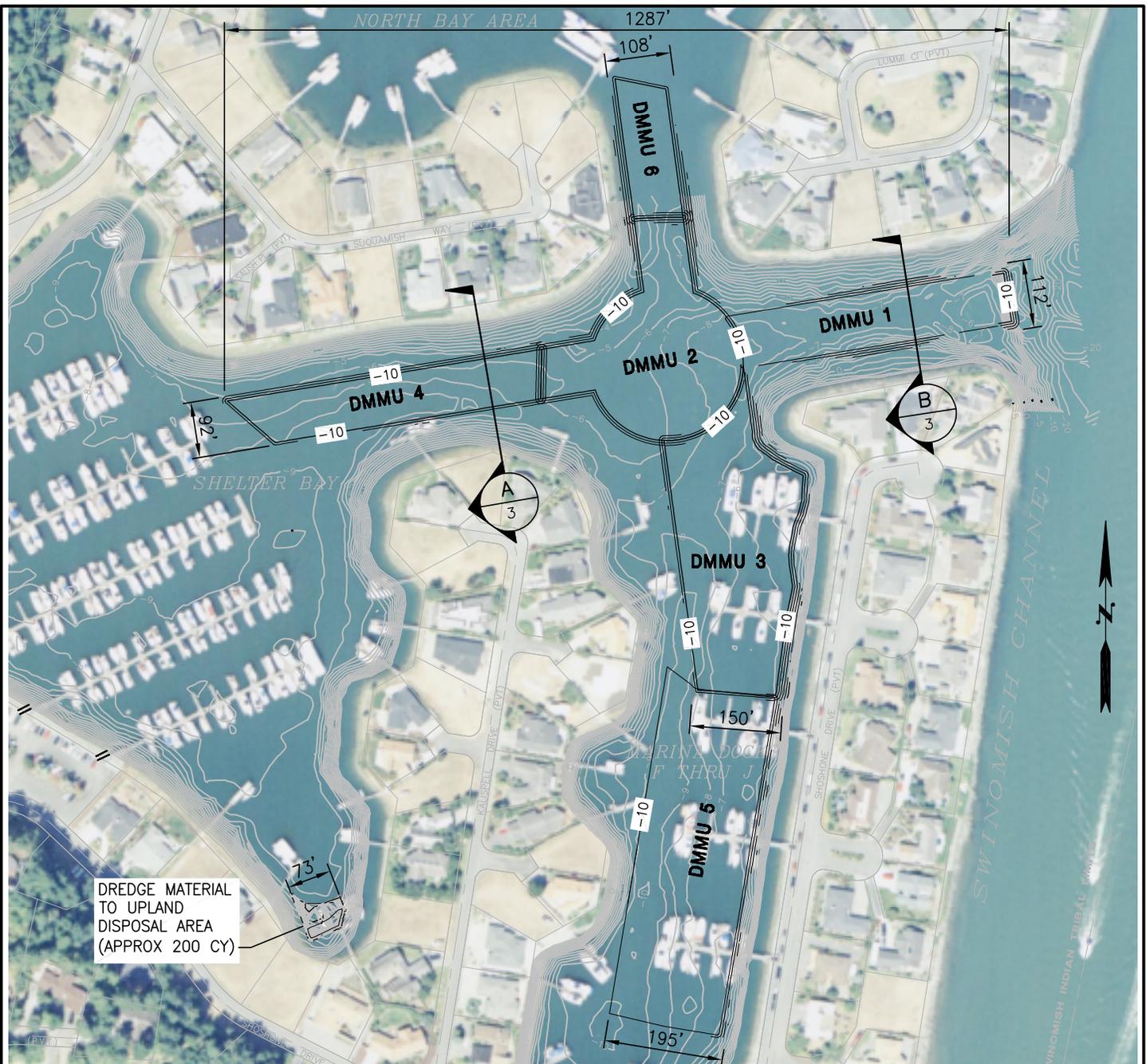
Shelter Bay is seeking approval for open-water disposal of the additional dredge material (the same as the approved 4 DMMUs) from the Dredge Material Management Office (DMMO). Sediment sampling and analysis is complete (performed by HWA GeoSciences) and the sediment sampling and analysis report has been sent to the DMMO. Based on the results from the sediment sampling and analysis report, the sediments to be dredged appear suitable for open water disposal.

Please review and let me know if this letter and the attached documentation is adequate to update the current permit for Shelter Bay to add the additional dredge areas.

Sincerely,



Blaine McRae
Reid Middleton, Inc.



DREDGE QUANTITIES:

DMMU 1: AREA = 46,984 SF CUT = 6,700 CU YDS	DMMU 4: AREA = 47,782 SF CUT = 8,200 CU YDS
DMMU 2: AREA = 77,768 SF CUT = 13,052 CU YDS	DMMU 5: AREA = 107,948 SF CUT = 11,495 CU YDS
DMMU 3: AREA = 89,354 SF CUT = 12,890 CU YDS	DMMU 6: AREA = 25,039 SF CUT = 3,514 CU YDS

OVERALL SITE FOR OPEN WATER DISPOSAL:
AREA = 394,875 SF
CUT = 55,851 CU YDS

NOTES:

1. DESIGN DREDGE IS -9 MLLW WITH 1 FOOT ALLOWABLE OVERDREDGE.
2. BATHYMETRY IS FROM MOST RECENT SURVEY (2019) BY WILSON ENGINEERING.
3. MHHW = 10.30'
MLLW = 0.00'

PURPOSE: MAINTENANCE DREDGING OF EXISTING MARINA, RECONFIGURATION OF D, E, F, G, H & I DOCKS, AND REPLACEMENT OF DOCKS A, B, & C

DATUM: MLLW 0.0'

**SHELTER BAY
MAINTENANCE DREDGING
& DOCK RECONFIGURATION
PROPOSED DREDGE SITE**

NAME: SHELTER BAY COMPANY
ADDRESS: 1000 SHOSHONE DRIVE
LA CONNER, WA 98257

ReidMiddleton

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Everett, Washington 98204
Ph: 425 741-3800

IN: SHELTER BAY
AT: SHELTER BAY MARINA
COUNTY OF: SKAGIT
APPLICATION BY: SHELTER BAY COMPANY

SHEET 3 OF 10 DATE: APRIL 2015

SHELTER BAY MARINA MAINTENANCE DREDGING AND DOCK RENOVATION PROJECT BIOLOGICAL EVALUATION UPDATE MEMORANDUM

Prepared for: Shelter Bay Company
Prepared by: Grette Associates^{LLC}

Date: December 4, 2019
Reference No. NWS-2014-0684-WRD

Introduction

In 2014, the Shelter Bay Company submitted a Biological Evaluation (BE) to assist the U.S. Army Corps of Engineers (Corps) in evaluating the effects on species listed as threatened or endangered under the Endangered Species List, as well as Essential Fish Habitat under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), of a maintenance dredging and float replacement project in Shelter Bay, Swinomish Channel. That BE determined that the project **may affect but is not likely to adversely affect** Puget Sound Chinook salmon and associated critical habitat, Coastal-Puget Sound bull trout and associated critical habitat, Puget Sound steelhead, bocaccio rockfish, canary rockfish, yelloweye rockfish, and marbled murrelet; and determined that the project will have **no effect** on Southern Resident killer whale, humpback whale, or leatherback sea turtle. All permits were issued for that project, but the project was not completed.

Currently, the applicant proposes to slightly modify that project by increasing the maintenance dredge area and volume. This would add two dredge management units (DMUs) and slightly reconfigure the previous DMUs. The total dredge area would increase from 369,721 sq ft (8.49 acres) to 394,875 sq ft (9.07 acres), and the total dredged volume would increase from 37,400 cubic yards(cy) to 55,851cy. Additionally, the DMUs have been minimized relative to their original configuration to encompass only those areas necessary to the dredging (see Figure 1 below). All other project elements, including dock/float replacement, remain the same as previously approved. Additionally, since that time, canary rockfish (*Sebastes pinniger*) has been removed from the ESA list.

The purpose of this memo is to assess the changes to the project and to update the conclusion of that BE in light of those changes. This memo will reference the original BE, indicate general changes that apply throughout the BE, then update the effects analyses and conclusions that relate to changes in the dredging volume/area.

General Changes to the BE

The following changes are made by reference to the Biological Evaluation.

- All references to canary rockfish throughout the document are deleted due to the delisting of the species.
- All references to dredge volume are changed from 37,400 to 55,851cy.

- All references to dredge area are changed from 370,000 square feet (8.49 acres) to 394,875 square feet (9.07 acres).
- The dredging duration (discussed in Section 2.2.1 and 5.2.1) is anticipated to take approximately 3 weeks rather than 2 weeks.

Specific Analyses Related to Dredging

Section 5.2 Direct Effects on Listed Species

Section 5.2.1 Salmonids

Water Quality Effects

The original BE concludes that dredging will cause turbidity. However, for several reasons, the turbidity is determined unlikely to cause adverse effects on ESA-listed salmonids. First, the work would be done during the approved in-water work window when juvenile, sub-adult, and adult salmonids are unlikely to be present (Section 5.2.1, paragraph 5 sentence 1). Even if present, turbidity would likely only be 1/3 of the level known to cause gill damage and only 1/18th of the level known to cause significant mortality (Section 5.2.1, paragraph 4). The BE also concludes that any increase in suspended sediment would be localized, temporary, and likely to be avoided by any salmonids present. The BE also points out conservation measures that would be implemented, including turbidity monitoring to ensure that the suspended sediment plume does not extend beyond the allowable mixing zone.

The BE concluded that, for all of these reasons, the project has a “negligible risk” of gill damage or mortality to juvenile salmonids or listed rockfish (Section 5.2.2). The increase in dredging would essentially only alter this by extending the duration over which dredging occurs. Based on the timing of the work, the low levels of the anticipated turbidity, and conservation measures, the increased dredging would still present “negligible risk” of gill damage or mortality to juvenile salmonids or listed rockfish.

Potential water quality effects from unintentional releases of fuel, lubricants, or hydraulic fluid from dredge related machinery were also discussed. With proposed conservation measures, it was determined that there is low risk for this to occur. Since the same conservation measures would be in place, and these water quality effects are still unlikely to occur, the increase in dredging does not change this conclusion.

Construction-related disturbance

The BE discussed the disturbance resulting from machinery operation associated with completing the project. The increased dredging would only increase the duration that dredging equipment is on site working by one week. The BE concluded that the level of disturbance would be comparable to background disturbance in the area (an active, narrow, enclosed marina), and thus inconsequential. Further, due to operation inside the approved in-water work window, ESA-listed fish species are unlikely to be present. The increased duration of dredging does not alter this conclusion.

The BE discussed that mechanism of a clamshell dredge (descending to the bottom substrate in the open position) renders the risk of entrainment to be negligible by allowing mobile organisms like salmonids to escape. The increased duration of dredging does not change this conclusion.

In summary, the BE concluded that construction-related disturbance posed little risk of mortality to salmonids given the project timing, the relatively short duration of dredging, the relatively low levels of suspended sediment, and construction methods. Increasing the duration of dredging from 2 weeks to 3 weeks does not change these conclusions.

The BE also concluded that these actions would have no effect on ESA-listed marine mammals due to their lack of use of the Action Area. This conclusion remains valid with the increased dredging.

Section 5.3 Indirect Effects

The effect of the Project on juvenile salmonid prey items was assessed, primarily regarding the time required for epibenthic organisms to recover after dredging. It was concluded that, based on timing, epibenthos would recover sufficiently prior to the time when juvenile salmonids could be present. The increased volume of dredging would lead to the same conclusion that epibenthos will recover, and the slightly longer duration of dredging would not change the determination that dredging would not adversely affect salmonid prey availability in the long-term.

Section 6.1 Puget Sound Chinook Salmon Critical Habitat

Section 6.1.1 Primary Constituent Element #5: Nearshore Areas

Section 6.1.1.1 Obstruction and Predation

This section concluded that turbidity caused by dredging could cause obstructions, but it would be short-term and localized, and timed to avoid juvenile salmonid presence. Over the long-term, the project would have no effect on the habitat's ability to provide passage through the Action Area or on predation. An increase in dredge volume by approximately 18,000cy and in duration by one week would not alter this determination—the project would still not adversely affect this element of PCE 5.

Section 6.1.1.2 Water Quality and Quantity

This section concluded that turbidity caused by dredging would be short-term and localized, and timed to avoid juvenile salmonid presence. Over the long-term Overall, the project's temporary water quality impacts would not alter the habitat's overall water quality. An increase in dredge volume by approximately 18,000cy and in duration by one week would not alter this determination—the project would still not adversely affect this element of PCE 5.

Section 6.1.1.3 Forage

This section concluded that dredging and other work would temporarily disturb the project area with turbidity, and epibenthos would recover within weeks, but would have no long-term effect on forage in the project area due to the likelihood that epibenthos would recover within a relatively

short amount of time. The expanded dredging area does not alter this conclusion—the project would still not adversely affect this element of PCE 5 since epibenthos would still recover rapidly.

Section 6.2. Coastal-Puget Sound Bull Trout Critical Habitat

Only PCEs 2 and 8 of bull trout critical habitat were determined to be affected by dredging. These are discussed below.

Section 6.2.1 Primary Constituent Element #2: Migratory Corridors

The BE assessed the project's effects on migratory corridors, with the primary potential effects being pile driving noise and turbidity entering Swinomish Channel. The BE concluded that these effects would be temporary and localized, timed so as to avoid impacts to bull trout, and ultimately would not adversely affect the Action Area's ability to serve as a migratory corridor. Greater volume/area of dredging would not alter this conclusion.

Section 6.2.5 Primary Constituent Element #8: Permanent Water of Sufficient Quantity and Quality

The BE concluded that dredging would cause short-term, elevated levels of turbidity, but that the resulting impediments to water quality would be localized, temporary, and well below the thresholds that are considered harmful to salmonids. The increase in turbidity could result in avoidance of the plume by any individual bull trout present, but the BE did not expect this to affect foraging abilities of any bull trout. Further, due to work timing, no bull trout would likely be present, and temporarily elevated turbidity would have no effect on the habitat over the long-term. These conclusions still hold with an additional duration of dredging to remove the additional volume, and the conclusion that the project would not adversely affect PCE 8 is still valid with the increased dredge volume.

ESA Conclusions

In conclusion, the applicant proposes a small, incremental increase in quantity and duration to project effects that have already been assessed by the BE, concluded to be negligible, and concurred with by the Services. Increased dredge volume would only extend these negligible effects by approximately 1 week within the work window. As discussed above, the logic presented in the BE that led to the original effects determinations is still valid with the increased dredging, and thus the effects determinations (***not likely to adversely affect*** or ***no effect***) remain valid.

EFH

The applicant also submitted an Essential Fish Habitat (EFH) assessment that evaluated the project's potential effect on salmon, groundfish, and coastal-pelagic EFH. The EFH analysis concluded that dredging would generate temporary turbidity that would marginally affect water column EHF, and would alter bottom substrate altering substrate EFH and causing a short-term loss of in epibenthic invertebrates inhabiting the bottom. However, the EFH concluded that due to the low anticipated level of disturbance and the rapid recovery (e.g., low levels of suspended sediment that is localized and temporary; rapid recovery of benthic infauna), these effects ***will not adversely affect*** salmon, groundfish, and coastal-pelagic EFH.

Since the proposed project modification introduces no new actions, but only a slightly greater volume/duration of dredging, the grounds by which the EFH analysis concluded that dredging-related turbidity would not adversely affect these EFHs remains valid:

- Though dredging would occur for slightly longer duration, the turbidity would still be localized, temporary, and would not be expected to reach levels of potential harm.
- Though dredging would encompass a slightly greater area of substrate, a rapid recovery of benthic infauna is expected.

In summary, the potential effects of the project do not change in nature or in severity, but only in duration and spatial area. Thus, the conclusion that the effects would be below harm levels and would recover quickly still leads to the conclusion that the project *will not adversely affect* EFH in the Action Area.