

**SUBJECT: DETERMINATION ON THE SUITABILITY OF PROPOSED MAINTENANCE DREDGED MATERIAL FROM THE U.S. FISH AND WILDLIFE SERVICES PROTECTION ISLAND NATIONAL WILDLIFE REFUGE ENTRANCE CHANNEL (2002-2-00909), FOR BENEFICIAL USES DISPOSAL ON AN ADJACENT BEACH.**

1. **Introduction.** The following summary reflects the consensus determination of the Agencies that comprise the regional Dredged Material Management Program (DMMP) for the State of Washington. The agencies include the Corps of Engineers, Department of Ecology, Department of Natural Resources, and the Environmental Protection Agency. The agencies are charged with determining the suitability of dredged material for in-water disposal and have evaluated the proposed maintenance dredging of up to 4,000 cubic yards of material from the entrance channel with beneficial uses disposal on an adjacent beach.

**Table 1. Regulatory Tracking Dates**

Sediment sample collected	July 2001
Sample Analysis reporting date	August, 6, 2001
Recency Determination (Exclusion) Low-Moderate Ranking	August 2008

**Table 2. Project Synopsis.**

Time of proposed dredging	Needs to be completed by 12 January 2003, because of roosting Bald Eagles
Proposed disposal site	Beach nourishment Protection Island intertidal zone immediately west of entrance channel
Sediment Ranking	Low-Moderate (exclusionary)
Project last dredged	Approximately 300 cy was dredged during December 2001 and disposed upland under NW38 permit

2. **History.** The entrance channel at Protection Island was initially dredged in 1972, and subsequently maintenance dredged. The U.S. Fish and Wildlife Service acquired Protection Island as a wildlife refuge, and needs reliable access by boat for caretaker activities. In July 2001 the Corps collected two representative samples of shoal material from the Protection Island entrance channel for the U.S. Fish and Wildlife Services. The samples from the gravel shoal area were characterized by Soil Technology, Inc. and the particle size was quantified as 92% Gravel, 7.7% Sand and 0.2% Fines. The DMMP agencies evaluated the sediment quality in 2001 using current program guidelines and determined that there was no "reason-to-believe" that the dredged material would be unsuitable for unconfined, open-water disposal or beneficial use, and so there was no further need for testing. The Corps subsequently authorized the dredging under NW38 for up to 2,000 cy with upland disposal on Protection Island. USFWS dredged approximately 300 cubic yards from the entrance channel and disposed upland in December 2001 under the NW38 permit.
3. The U.S. Fish and Wildlife Service under Section 10/404 permit application (2002-2-00909) proposes to complete the dredging with up to 4,000 cubic yards proposed for dredging from the entrance channel to provide USFWS vessel access with disposal on the intertidal zone immediately west of the entrance channel to duplicate the effects of littoral drift (see figures 1-3). Downdrift beach disposal is preferred to upland disposal on the wildlife refuge.

4. **Tier I Evaluation.** A Tier I evaluation is conducted for every DMMP project, and includes a comprehensive analysis of all existing information on the proposed dredging project. Limited testing is also sometimes required (e.g., grain size analysis). If the information compiled in Tier I is adequate to meet DMMP “reason-to-believe” guidelines, and/or the exclusionary criteria contained in the Inland Testing Manual (1998), then factual determinations can be made without proceeding to the higher tiers.
5. DMMP staff has found no evidence of significant sources of chemical contamination or spills of any kind in the vicinity of the project. This material to be dredged is similar in nature to the material on the adjacent beach, where disposal is planned. The area to be dredged is located in a relatively high energy area.
6. DMMP staff also re-evaluated the 2001 grain size information (see paragraph 7 below) to determine if further testing of the sediments proposed for dredging should be required. Although a Tier I analysis of sediments collected from most areas of Puget Sound usually leads to chemical sampling under Tier II, in this case the evaluation showed considerable evidence that no further testing was necessary to determine that the material is suitable for unconfined open-water disposal, including disposal at the beneficial use site proposed. The evaluation also found that the proposed dredged material would not be required by federal criteria to undergo further testing [Clean Water Act (CWA), 40 CFR 230.60]. For these reasons, the DMMP agencies agreed that no chemical or biological testing for this project is required to make a determination of suitability for open-water disposal or beneficial uses.
7. **Grain Size Analysis.** The results of the two grain size samples are summarized in Table 3 (enclosure 1). The results show that for the first sample 92.1 percent of the sample is gravel and 7.7 percent is sand with only 0.2 percent remaining as fines (silt + clay). The second sample was 97.3 percent sand and 2.7 percent fines (silt + clay). Both samples contained well over 90 percent sand and gravel indicating that the material was coarse grained and largely inert, as specified for exclusion under the CWA.

**Table 3. Grain Size for Protection Island Entrance Channel Shoal Material.**

Parameters	Sand Shoal Grab	Gravel Shoal Grab
Sample Location (NAD83)	North 417676 East 1130676	North 417940 East 1130676
% Gravel	0	92.1
% Sand	97.3	7.7
% Fines (Silt + Clay)	2.7	0.2

8. **Suitability.** This memo documents the suitability of proposed dredged sediments from the Protection Island Entrance Channel for open-water disposal, including the placement on the local beach immediately west of the Entrance Channel. The data gathered were deemed sufficient and acceptable for regulatory decision-making under the DMMP program. Based on the results of the previously described evaluation, the DMMP agencies concluded that all 4,000 cubic yards are suitable for unconfined open-water disposal, including disposal on the beach for beneficial uses.

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Concur:

11/21/02  
Date

David R. Kendall  
David Kendall, Ph.D., Seattle District Corps of Engineers

11/21/02  
Date

Justine Barton  
Justine Barton, Environmental Protection Agency

11/26  
Date

Thomas H. Gries  
Tom Gries, Washington Department of Ecology

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Date

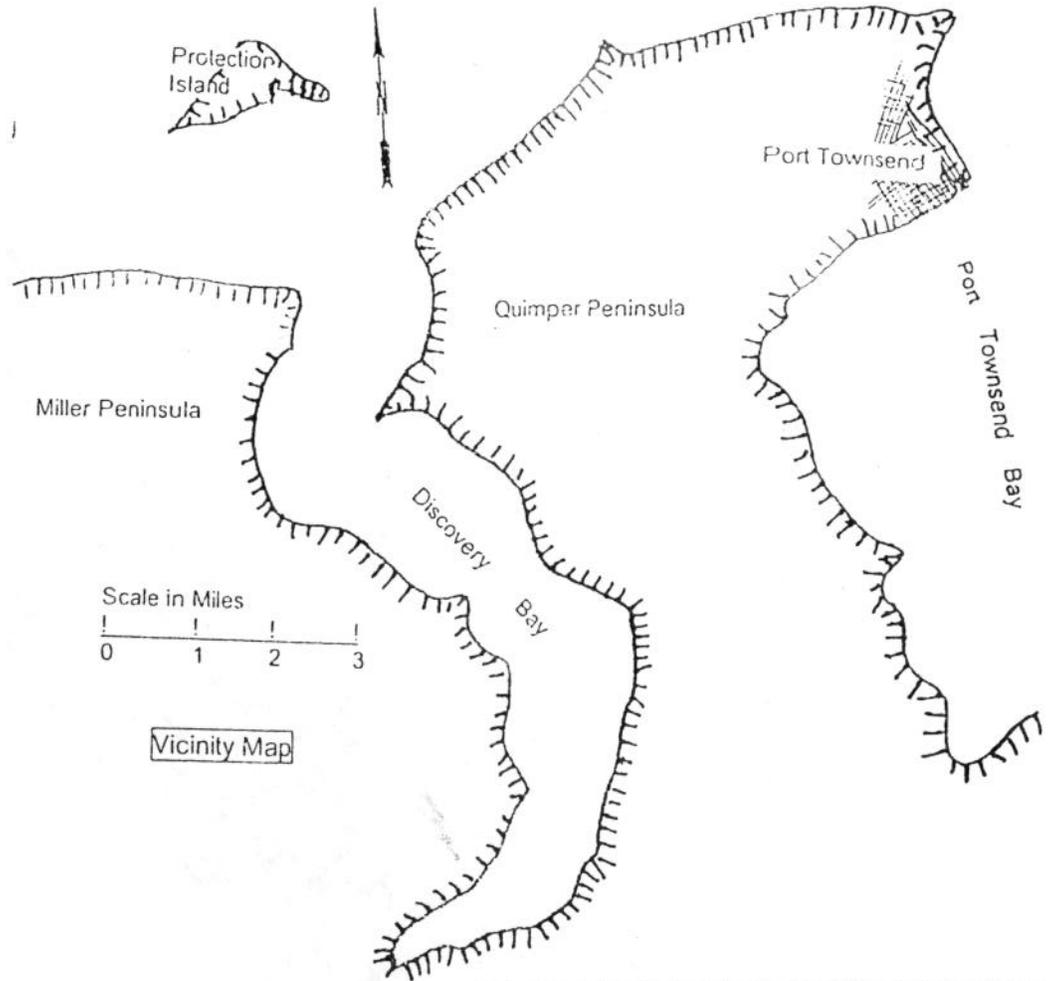
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Washington Department of Natural Resources<sup>1</sup>

**Copies Furnished:**

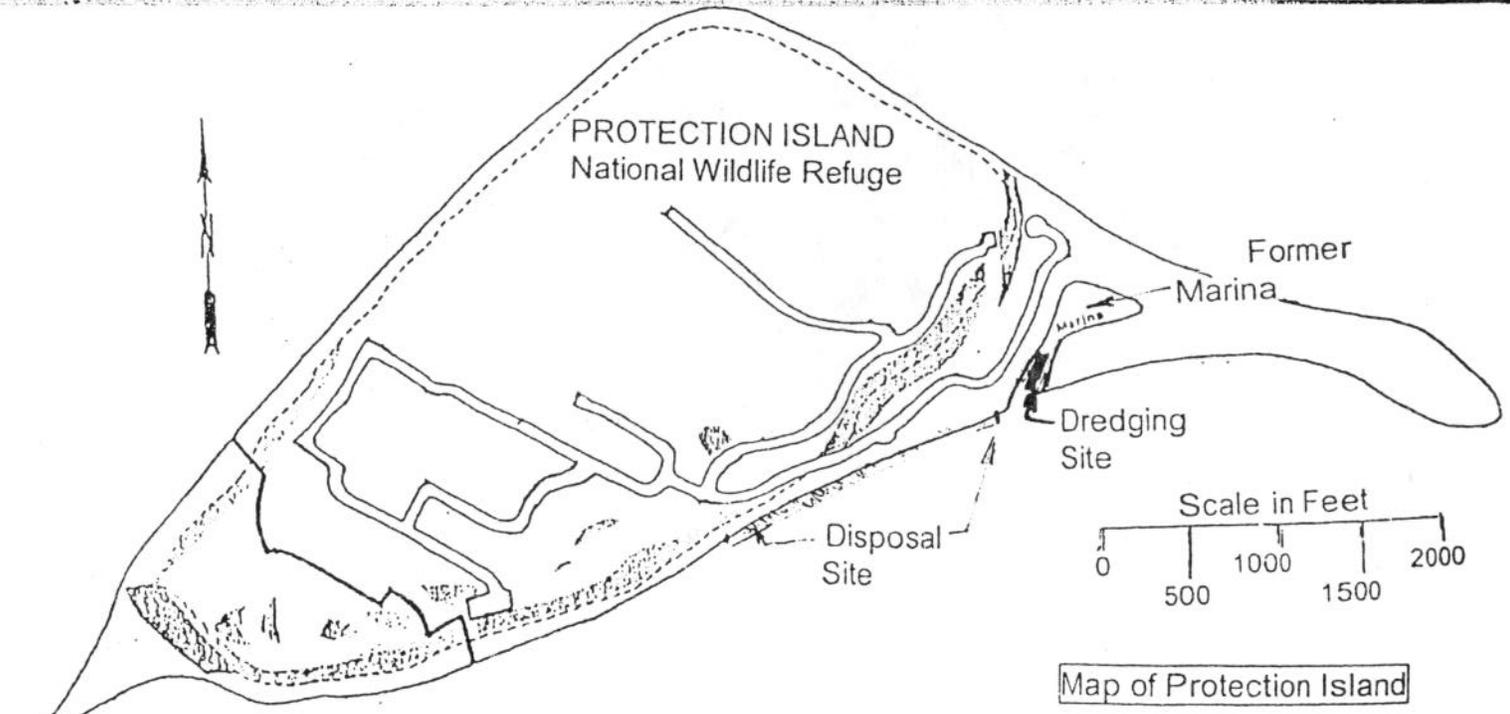
- Jack Kennedy, Regulatory Branch Project Manager
- Justine Barton, EPA
- Tom Gries, Ecology
- Lee Espy, DNR
- DMMO File

<sup>1</sup> The DMMP position formerly held by Robert Brenner at DNR is now currently vacant and in the process of being filled. Therefore, DNR did not participate in this suitability determination.





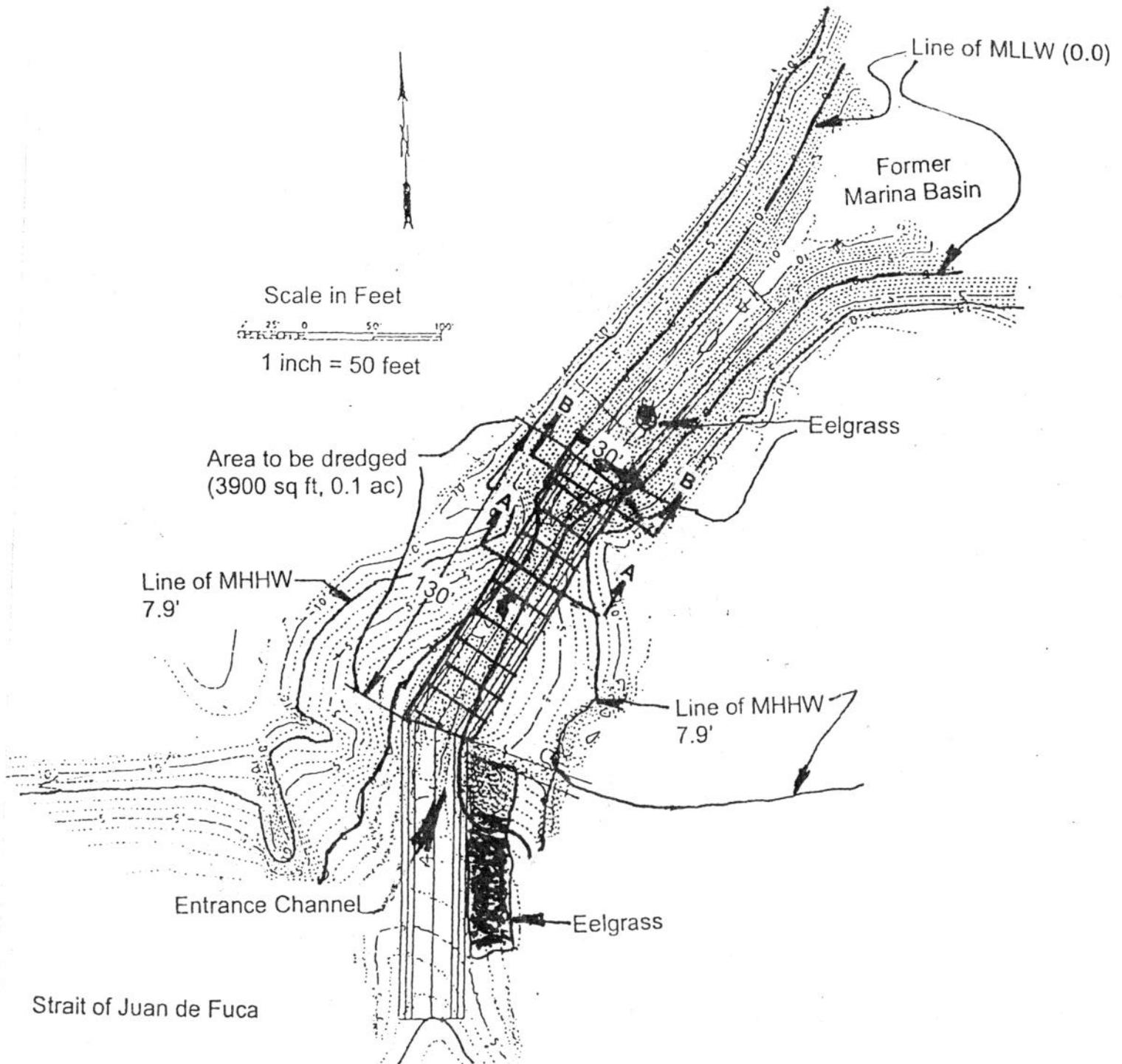
Vicinity Map



Map of Protection Island

Purpose: Dredge for FWS vessel access; beach disposal to duplicate effects of littoral drift  
 Datum: MLLW = 0.0' (NOS)  
 2002-2-00909  
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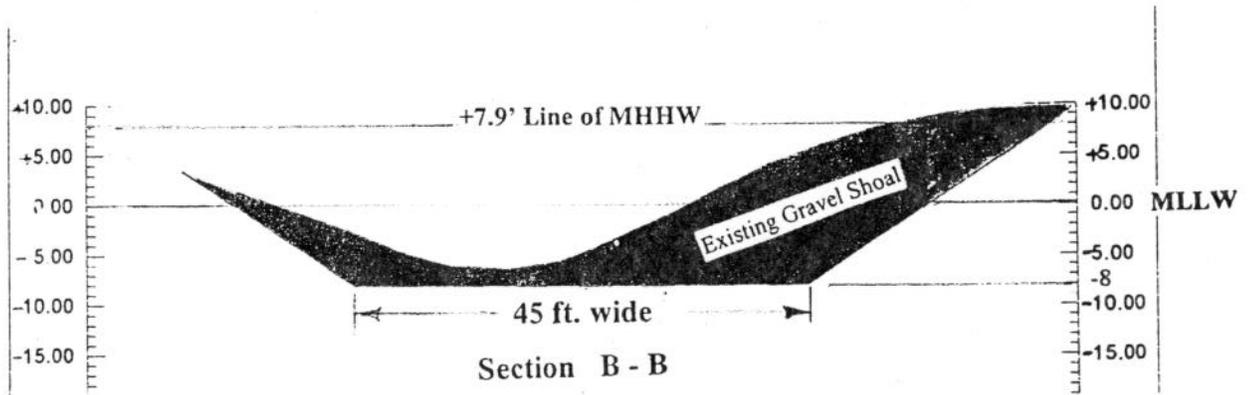
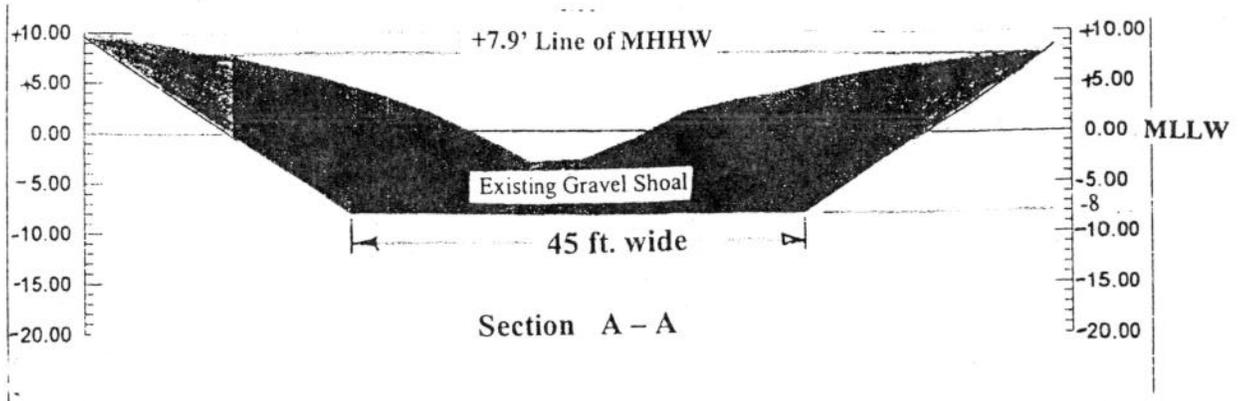
Proposed: Dredge 400 cy gravel, with disposal on beach intertidal area  
 In: Straits of Juan de Fuca  
 At: Protection Island NWR  
 Near: Port Townsend, Jefferson County WA



Plan view of Entrance Channel

Purpose: Dredge for vessel access; beach disposal to duplicate effects of littoral drift  
 Datum: MLLW = 0.0 (NOS)  
 2002-2-00909  
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Proposed: Dredge 4000 cy gravel  
 In: Straits of Juan de Fuca  
 At: Protection Island NWR  
 Near: Port Townsend  
 Jefferson County, Washington



SCALE: 1" = 20'

Purpose: Dredge for FWS vessel access; beach disposal to duplicate effects of littoral drift

Datum: MLLW = 0.0' (NOS)

2002-2-00909

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Proposed: Dredge 400 cy gravel, with disposal on beach intertidal area

In: Straits of Juan de Fuca

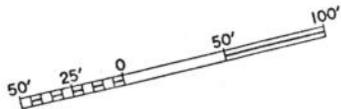
At: Protection Island NWR

Near: Port Townsend, Jefferson County WA



PROTECTION ISLAND

Boat Moorage Area



PROTECTION ISLAND

Gravel Shoal Sample Location

Proposed Disposal on Existing Gravel Beach

Sand Shoal Sample Location

JETTY

JETTY

