

Appendix F

Site Management and Monitoring Plan Siuslaw River, Oregon

April 2010



**US Army Corps
of Engineers** ®
Portland District

Final

Siuslaw River North and South ODMDS

Site Management/Monitoring Plan

Section 102 of the Marine Protection, Research and Sanctuaries Act, as amended,
Ocean Dredged Material Disposal Sites (ODMDS)

April 2010

ABSTRACT

This Site Management/Monitoring Plan (SMMP) has been prepared jointly by the U.S. Environmental Protection Agency, Region 10 (EPA), and the U.S. Army Corps of Engineers, Portland District (USACE), and describes management and monitoring requirements for the EPA-designated ocean dredged material disposal sites (ODMDS) located offshore from the Siuslaw River in Oregon. This SMMP supersedes all previous SMMPs for the Siuslaw River. Periodic review and updating of this SMMP will occur no less frequently than 10 years from the date this SMMP is effective. All permits or other authorizations to use the Siuslaw River ODMDS shall be conditioned as necessary to assure consistency with this SMMP.

Siuslaw River ODMDS Site Management/Monitoring Plan

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Introduction

This Site Management/Monitoring Plan (SMMP) was jointly prepared by the U.S. Environmental Protection Agency, Region 10 (EPA), and the U.S. Army Corps of Engineers, Portland District (USACE). This SMMP describes management and monitoring requirements for the EPA-designated Siuslaw North and South Ocean Dredged Material Disposal Sites (ODMDS) located offshore of the Siuslaw River in Oregon, hereafter referred to as the Siuslaw River ODMDS or Siuslaw Sites (Figure F-1). This SMMP becomes effective upon the effective date of the site designation and supersedes and replaces any previous SMMP for this location.

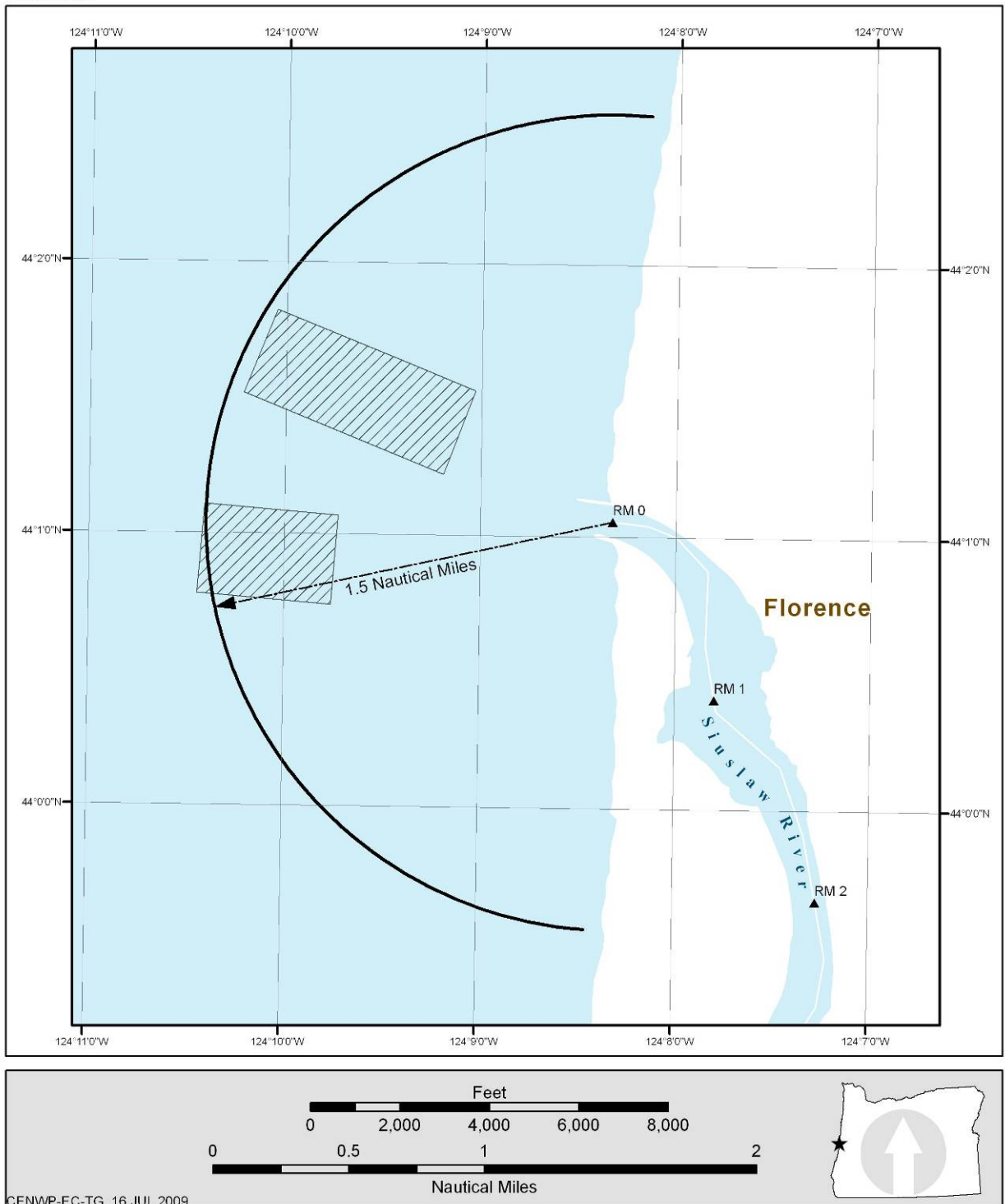
It is the responsibility of the EPA and the USACE to manage and monitor each ODMDS designated by EPA pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act, as amended (MPRSA). EPA has final authority over site management. The SMMP provisions establish requirements for all dredged material disposal activities at each site. All permits issued pursuant to Section 103 of the MPRSA for the ocean disposal of dredged materials at the Siuslaw Sites shall be conditioned as necessary to ensure consistency with this SMMP. The USACE shall ensure that its use of the Sites is consistent with this SMMP.

Guidance for the preparation of a SMMP for ODMDS is provided in the joint EPA/USACE Guidance Document for *Development of Site Management Plans for Ocean Dredged Material Disposal Sites* (USACE/EPA 1996). This guidance document lays out a recommended framework for site management plan development and content.

Each SMMP is required, pursuant to the MPRSA, to include: a baseline assessment of conditions at the site; a program for monitoring the site; special management conditions or practices to be implemented at each site that are necessary for protection of the environment; consideration of the quantity of material to be disposed at the site, and the presence, nature, and bioavailability of the contaminants in the material; consideration of the anticipated use of the site over the long term, including the anticipated closure date for the site, if applicable, and any need for management of the site after closure; and a schedule for review and revision of the plan which must be no less frequently than 10 years after adoption of the plan and at least every 10 years thereafter.

Specific management of each designated ODMDS involves regulating the times of use, the quantity and the physical/chemical characteristics of dredged material that is dumped at the site; and establishing disposal controls, conditions, and requirements to avoid and minimize potential impacts to the marine environment. Appropriate management of each ODMDS is aimed at assuring that disposal activities comply with permit requirements, site management objectives and conditions, and do not unreasonably degrade or endanger human health, welfare, the marine environment or economic potentialities. Monitoring the site and adjacent environs is a critical component of management to verify compliance with requirements, objectives, and conditions of site management, to ensure that unanticipated or significantly adverse effects are not occurring from use of the disposal site, and ensure that permit terms are met.

Figure F-1: Siuslaw River North and South ODMDS and Vicinity



Site Management Roles and Responsibilities

The designation of ODMDS and the issuance of permits for such sites are components of the federal, non-delegable, ocean dumping program. Site designation and management are federal responsibilities. Owing to the interactive nature of regulating ocean disposal of dredged material, the functional management of ODMDS along the coast of Oregon is shared between EPA Region 10 and the USACE Portland District. The EPA and USACE will routinely consult on all decisions regarding site use and management. The primary mechanism for pre-disposal consultation will be the ODMDS annual summary assessment report and monitoring update prepared by the Portland District.

The EPA may condition, terminate or restrict site use with cause. The EPA, Region 10 is responsible for managing and monitoring ocean dredged material disposal sites in ocean waters off the States of Alaska, Washington, and Oregon, including the Siuslaw River Sites addressed in this SMMP.

The USACE is expected to be the primary user of the Siuslaw River Sites for dredged material from federal navigation projects. The USACE also issues permits for transportation of dredged material for the purpose of ocean disposal, after consultation with and concurrence from the EPA, in compliance with these criteria. The USACE meets substantive permit requirements, including EPA concurrence, for its own use of the Siuslaw Sites.

Baseline Definition

Section 102(c)(3)(A) of the MPRSA requires that the SMMP include a baseline assessment of conditions at the site. The baseline record for the Siuslaw River Sites includes over 30 years of studies and surveys which are pertinent to dredged material management. Assessments of physical, chemical and biological characteristics of the section of the Pacific Ocean encompassing the sites are described in Richardson 1973; Peterson and Miller 1977; Richardson and Percy 1977; Brodeur et al., 1985; USACE 1991, 1992, 1996, 2001, 2009; Keister and Peterson 2003; Auth and Brodeur 2006; Auth et al., 2007; and Sherman 2007, as well as other technical studies and annual monitoring surveys. There are no rare or unique features or habitats at or near the Siuslaw Sites. The Siuslaw Sites are situated near land in an open, dynamic ocean environment. The topography of the seabed in the vicinity of the Sites is fairly uniform. The ocean bed is characterized by an outward bulging of the bathymetric contours northwest of the mouth of the Siuslaw River, forming a fan-like feature on the ocean floor. This bulge is evident to water depths of 100 feet.

Areas in the same vicinity as the Siuslaw Sites have been used by the USACE since 1929, when hopper dredges began to work the Siuslaw bar and entrance channel. Site A (Figure F-2) was designated an EPA Interim Site in 1977 (40 CFR 228.12). It was suspected that ocean currents were transporting dredged material placed in the Interim Site A back into the Siuslaw entrance channel. In 1986-1987, the USACE completed dye and seabed drifter studies. Results demonstrated dredged material deposited south and/or east of the centroid of Interim Site A, with prevailing north to northwest winds, could possibly drift back across or into the Siuslaw entrance channel. Interim Site A also experienced mounding to 14 feet relative to the 1981 bathymetric baseline due to the volume of dredged material disposed and the small size of the site. Two adjusted ocean disposal sites, Sites B and C, were selected by the USACE under Section 103 of the MPRSA (see Figure F-2). Since 1997, material removed from the Siuslaw federal navigation project has been deposited into Sites B and C.

Sites B and C also experienced mounding. Disposal restrictions, until lifted in 2008, were placed on the southeast corner of Site B, an area which overlapped Interim Site A. The bulk of the dredged material has been placed in the larger Site B. The primary goals in locating and managing the Section 102 Sites are to: (1) maximize their capacity since a Section 102 site designation is potentially indefinite based on management, monitoring and response to impacts of disposal; (2) minimize the potential for mounding and associated safety concerns; (3) maximize the volume of material that remains in the nearshore littoral system; and (4) avoid adverse effects to unique biological resources. It was clear that the Section 102 Sites should be expanded to increase capacity and to allow for careful management to minimize mounding, if historically used sites in the nearshore zone were to be designated.

At other ocean disposal sites along the Oregon Coast, the EPA and the USACE have endorsed the strategy of placing a site to the north and another to the south of the river mouth (Yaquina Bay, Umpqua River, etc.), primarily because such placement allows for adaptive management of the sites in a dynamic current environment. Therefore, the Siuslaw Sites include both a North and South ODMDS.

Generally, material placed deeper than 60 feet remains where it is placed, or disperses very slowly and is therefore, removed from the active littoral system. To keep more material in the active littoral system, the North Site configuration expands the footprint of the former Section 103 Site B to include the original 1977 Interim Site A, and a similar area to the north of Interim Site A (see Figure F-2). Although previous studies showed the potential for material disposed in portions of Interim Site A to re-enter the channel, the larger Siuslaw North and South Sites allow for greater adaptive management based on observed seasonal sediment transport patterns. Strategic management and monitoring of the Siuslaw Sites is expected to prevent measurable volumes of dredged material from migrating back into the channel. To further address potential mounding and movement of material into the federal channel, the southern boundary of the South Siuslaw ODMDS was moved further south than the former Section 103 Site C, doubling the footprint of the site. The shallower portions of the North Siuslaw ODMDS will be utilized to the maximum extent possible in order to keep material in the active littoral zone.

Site Definitions and Description

Disposal Site Definitions

For the purposes of management and monitoring of the designated Siuslaw Sites, the following definitions are applicable.

Disposal Sites: The sea bottom within the coordinates specified in the applicable *Federal Register* Final Rule designating the individual sites and the overlying water column.

Placement Area (also can be called disposal area): The area of the sea bottom that will be immediately occupied by disposed dredged material released at the water surface (1) on an annual use basis, and/or (2) over the anticipated life of the disposal site. The disposal sites will be managed as dispersive sites. Generally, the placement area for dispersive sites is designated and managed on a seasonal or annual cycle. Material discharged and accumulating in the placement area during the active disposal season is expected to be transported out of the site and redistributed by natural forces (e.g., tides, currents, waves) leaving the placement area with near its original capacity.

Disposal Site Description

The Sites are located near the mouth of the Siuslaw River and are primarily intended to receive suitable dredged material from the USACE Siuslaw River federal navigation project, other local USACE projects, and appropriately permitted dredged material from non-USACE projects. The location of the Sites (coordinates) and size are shown in Table F-1.

Table F-1. Coordinates, Dimensions and Anticipated Use of the Siuslaw North and South ODMDS

<p>Siuslaw North ODMDS (North American Datum 1983)</p> <p>44° 01' 31.03"N, 124° 10' 12.92"W 44° 01' 49.39"N, 124° 10' 02.85"W 44° 01' 31.97"N, 124° 09' 01.86"W 44° 01' 13.45"N, 124° 09' 11.41"W</p> <p>Dimensions: 4,800 feet long x 2,000 feet wide Depth Range: 30-115 feet Average Depth: approximately 90 feet</p> <p>Siuslaw South ODMDS (North American Datum 1983)</p> <p>44° 00' 46.72"N, 124° 10' 26.55"W 44° 01' 06.41"N, 124° 10' 24.45"W 44° 01' 04.12"N, 124° 09' 43.52"W 44° 00' 44.45"N, 124° 09' 45.63"W</p> <p>Dimensions: 3,000 feet long x 2,000 feet wide Depth Range: 80-125 feet Average Depth: approximately 100 feet</p> <p>Components of the Sites: The disposal sites, placement areas, and drop zones are identical.</p> <p>Disposal Capacity: Disposal volumes for these Sites are not often expected to exceed 118,000 cubic yards (cy)/annually (based on a 13 year average of about 60,000 cy and range of 22,300 to 117,300 cy); material is expected to be disposed approximately 20 days annually (based on an average of 7 days and a range of 3-23 days). Generally, dredging and disposal are expected to take place between June 1 and October 31 of each year.</p>

Anticipated Site Use

Section 102(c)(3)(E) of the MPRSA requires that the SMMP include consideration of the anticipated use of the site. Primary and regular use of the Siuslaw Sites is expected by the USACE, Portland District, for the disposal of dredged material removed from the federal navigation project on an annual maintenance schedule. It is also expected that the sites will be used for disposal of material dredged by other public or private entities pursuant to a permit as required by Section 103 of the MPRSA. These individual Section 103 permits (which could be multiple-year authorizations up to 7 years) will be issued by the USACE Regulatory Branch after EPA concurrence. Individual permits generally require public notice and require other federal consultations (e.g., Endangered Species Act, Essential Fish Habitat) and authorizations (e.g., water quality certification) prior to issuance.

Siuslaw River Navigation Project Description

The Siuslaw River federal navigation project, authorized by the Rivers and Harbor Act of: 1890, 1910, 1925, and 1958, as a Section 107 Project in 1960, and under Public Law 96-367 in 1980, includes:

Jetties

- North Jetty is 8,390 feet long.
- North Spur Jetty is 400 feet long.
- South Jetty is 4,200 feet long.
- South Spur Jetty is 400 feet long.

Channel

- Entrance channel from deep water to river mile (RM) 0 is 300 feet wide and 16 feet deep, thence a channel 5 miles long, 200 feet wide and 16 feet deep.
- Turning basin at Florence is 600 feet long, 400 feet wide and 16 feet deep.
- Channel from Florence to RM 16.5 is 11.5 miles long, 150 feet wide and 12 feet deep.
- Turning basin at RM 15.5 is 500 feet long, 300 feet wide and 12 feet deep.

The Siuslaw River federal navigation project was authorized for the following purposes:

- Decrease waiting times for vessels crossing the bar;
- Provide a protected entrance for small draft tugs, barges, and commercial and recreational fishing vessels;
- Provide mooring facilities for small boats which take advantage of project facilities;
- Permit barge and small boat traffic upstream to RM 17;
- Provide a harbor of refuge; and
- Provide a dependable year-round entrance channel.

Site Management Objectives

The primary goal of this SMMP is to provide for safe and efficient disposal of suitable dredged material at the Siuslaw North and South ODMDS, while minimizing adverse effects to the environment including, but not limited to, coastal and marine resources, to the greatest extent practicable. General site management objectives for accomplishing this goal are to:

1. Avoid creation of persistent mounds;
2. Minimize impacts on coastal sediment circulation by keeping sediment in the littoral zone to the extent practicable;
3. Minimize long-term adverse effects to coastal and marine resources;
4. Minimize interference with other uses of the ocean;
5. Maintain safe navigation;
6. Promote safe and efficient dredge operations; and
7. Document disposal and monitoring activities at the North and South ODMDS.

All these general site management objectives are applicable to the Sites and additional specific management restrictions may be imposed, as necessary. Specific individual Site objectives and restrictions will be periodically reassessed and/or revised in the future.

To minimize the creation and persistence of mounds, the Sites will be managed to maximize the dispersal capability of the shallower portions of the disposal sites. Generally, there will be a preference for the use of the North Site in areas shallower than -60 feet MLLW if capacity exists at these depths.

- Site management may include establishing cells along the nearshore portion of each Site to ensure uniform placement, minimize the accumulation of material, maximize dispersal out of the Site, and avoid excessive or persistent mounding. Dump plans will be developed and may be adjusted during each disposal season to utilize different portions or cells within the shallower areas of the Sites to achieve uniform placement and minimize mounding.
- Disposal may be alternated as necessary between the two Sites to allow for maximum dispersal and minimal impact. The North Site is anticipated to receive more frequent initial use, but this may change as conditions warrant.

Site Monitoring and Special Studies

Site monitoring is a key component of site management. The main purpose of a disposal site monitoring program is to determine compliance with site use requirements or conditions, and to determine whether site management practices, including disposal operations, need to be changed to avoid unacceptable adverse effects and/or endangerment to human health and welfare or the marine environment. Monitoring of these activities is referred to as “routine monitoring” throughout the SMMP. Routine monitoring events may be triggered annually or some other time interval (e.g., 7-10 years), when a set volume of material has been disposed at the Sites, or when a combination of volume and chronology provide a logical trigger. Special studies will be undertaken as necessary to address specific questions or issues that are not covered by routine monitoring events. Such situations could include follow-up after an incident (e.g., spill of a material or fish kill), in advance of use of a new type of equipment, following placement of a different type of material (e.g., rocks) at the Sites, or following receipt of significant new information (physical, chemical, biological, or social/economic) that could influence the ongoing adaptive management of the Sites. The results of these special studies are intended to refine future management objectives and practices, modify routine monitoring requirements or reset baseline conditions.

Potential decision outcomes resulting from routine monitoring of disposal or special studies at the Siuslaw Sites include the following:

No Change:

- a. No Change *Required* (e.g., routine monitoring reveals no cause for concern; disposal and monitoring continue as planned).
- b. No Change *Possible* (e.g., one-time event or accident took place at a Site; while there may be no change in disposal operations, other actions may be appropriate).

Additional Information Required:

- a. Adjust routine monitoring (e.g., employ more frequent bathymetric surveys, conduct physical, chemical or biological monitoring).
- b. Require a special study.

Operational Change Required:

- a. Scheduling (e.g., adjust time periods or rates of disposal).

- b. Adjust placement of material within a Site (e.g., place material in a different manner).
- c. Restrict type or quantity of material placed at a Site.

Change Sites:

Relocate disposal activities from one Site to another (i.e., days to weeks); follow-up with monitoring to determine if additional attention is warranted.

Discontinue Disposal Site Use:

- a. Cease Disposal – short-term (e.g., 1 season). A known temporary condition took place which merits discontinued use for a short period of time; follow-up with monitoring to determine if additional attention is warranted.
- b. Cease Disposal – long-term. Typically, this would occur when routine monitoring or a special study confirms an unacceptable condition persists. This would require Site modification or identification and designation of a new site(s).

Routine Monitoring

Routine monitoring will generally consist of annual bathymetric monitoring at the Sites, typically done in the spring. Initial baseline is currently defined as the September 1981 bathymetric survey – the first year that Siuslaw bathymetric data were entered into a computer system that allowed for computerized record-keeping and long-term trend analyses. In subsequent years, Siuslaw ODMDS bathymetric monitoring results will be compared to the initial baseline survey at a Site, the designation baseline of spring 2010, and the previous year’s survey. In addition, other historical surveys from the area will be retained and used as needed to determine trends and gather information relevant to site management. More intensive monitoring is employed when annual bathymetry or direct field observation reveals persistent mounding or a rapid increase in mounding from the previous year. The level of monitoring sufficient to address the specific management questions at hand will be undertaken.

The following specific monitoring objectives are identified for the Siuslaw River North and South Sites:

- Ensure that dredged material is being placed as required by this SMMP and the provisions as codified in the Federal Register for the Sites;
- Ensure that the dredged material is behaving as predicted during placement (e.g., monitoring vs. modeling);
- Ensure that placement of dredged material does not create persistent and adverse wave-generating mounds (principally shallow water concern);
- Assess the significance of potential impacts of disposal operations on the public safety and resources or resource use; and
- Verify that material is moving out of the North and South Sites over time, as predicted, providing long-term capacity without adverse effects.

Specific Routine Monitoring

For management purposes, routine monitoring will concentrate on determining how dredged material is behaving within and in the vicinity of the Siuslaw North and South Sites. Bathymetric surveys shall be conducted annually. The number and length of transects required for annual assessment will be sufficient to encompass the area impacted by dredged material disposal. The survey area will

extend at least one survey transect beyond the area impacted. Bathymetric surveys will be used to monitor the disposal mound and assist in verification of material placement, to monitor bathymetric changes and trends, and to determine whether Site capacity has been exceeded (i.e., that the placement area does not exceed the Site boundaries). Initial Site capacity is assessed using Site bathymetric surveys from the previous year to establish how much of the previous year's disposed material has dispersed from each Site. Any year's annual bathymetric profile is evaluated for cumulative changes based upon comparison to initial and designation baselines, and the previous year's survey. This information will be provided to EPA as part of the annual summary assessment report. In addition, while not available for the summary assessment report, any more recent and then-current bathymetry must also be used for the annual spring planning/site adaptive management process between the Corps and EPA.

If mound heights appear to be increasing over time, more intensive monitoring and/or management action will be taken. Such action may consist of restricting placement to only certain portions of a Site or some other similar disposal or management action. If placement restrictions or similar management actions do not sufficiently control mound height, the Site(s) or portions thereof, may be temporarily, or in the instance of extreme mounding, permanently closed to use.

Monitoring surrounding areas for biological resources, as well as confirmatory physical, chemical and biological characterizations of associated Site and adjacent sediments, are expected to be performed on an approximate 9-year schedule unless otherwise warranted. For example, the first major monitoring at the Sites would occur around 2017. This fieldwork could include a level of effort similar to that expended in the 2008 baseline studies at the Sites and surrounding area, however, the nature and extent of these studies will depend on Site use and issues that arise during adaptive management in the intervening years. In 2016, during the annual spring planning meeting, EPA and the Corps will discuss the 2015 Annual Summary Assessment Report and ongoing site management issues. In addition, EPA and the Corps should identify the nature and extent of physical, chemical and biological characterizations needed to support ongoing Site management. It is anticipated that any reassessments will be documented as stand-alone reports to directly support monitoring efforts at the Siuslaw North and South Sites.

Adaptive Management and Monitoring

The North and South Sites will be adaptively managed to avoid unacceptable adverse effects or endangerment to human health or welfare, or to the coastal and marine environment. Site management and monitoring will be adjusted at any time as conditions warrant. If EPA has reason to believe the marine environment at the Sites may be at an increased risk of degradation, additional testing may be required and Site use may be restricted or terminated while Site assessment is underway. From time to time, the Corps and EPA may discuss Site monitoring with federal and state agencies.

Special Studies

Special studies are non-routine studies of specified duration that are intended to address specific questions or issues that are not covered by routine monitoring events or that arise from routine monitoring. The obvious need for a special study would be following an accident or spill. Under such circumstances, EPA and USACE would mutually scope and conduct appropriate studies to determine the effect of the incident on the Sites and whether specific contingency or possible enforcement action would be necessary. The results of any special studies would be used to refine future management objectives and practices, modify routine monitoring requirements, or reset baseline conditions. Depending on study objectives, technical assistance or advice would be sought

from other agencies and entities. It is anticipated that special studies would be coordinated with the Northwestern Regional Dredging Team (RDT).

Restrictions and Requirements

- Only clean dredged material can be placed into the ocean under existing statutes and regulations. Sediment suitability must be documented prior to disposal following procedures in the national testing manual, *Evaluation of Dredged Material Proposed for Ocean Disposal* (Corps/EPA 1991) and the regional *Sediment Evaluation Framework for the Pacific Northwest* (SEF 2009) or their subsequent replacements. For further explanation, see the *Quantity of Material and Presence of Contamination* section below.
- Though expected to be unusual for the Siuslaw Sites, EPA and the Corps may jointly determine whether a site utilization plan is necessary for a given year. The decision may be based on volume, equipment, or origin of dredged material considerations. This decision must be agreed to by the agencies prior to dredging and disposal at the Sites in a given dredging year.
- USACE, Portland District shall submit an Annual Summary Assessment, as outlined below, to EPA each spring. The Annual Summary Assessment shall include sediment volumes from USACE disposal actions as well as permitted disposal actions.
- As detailed below, all users are required to keep daily records of disposal activities
- All users must notify EPA prior to disposal according to the timelines detailed below.
- EPA may condition, terminate or restrict site use with cause.

Annual Summary Assessment Requirement

The operational mechanism for use and monitoring of the Siuslaw Sites on an annual basis, as well as management decision-making, will be annual summary assessment report updates. The annual summary report for a given dredging year is based on the results of the previous year's monitoring, the pre-dredging/disposal hydrographic surveys (typically conducted the previous spring), and dredge operating parameters. The summary will focus on any operational adjustments that should be implemented. It is expected that the primary user of the Sites will be the USACE for material dredged from the Siuslaw River federal navigation project. The annual summary will identify Site capacities, actual volumes discharged, sediment quality analysis of material proposed for discharge, dredging and disposal techniques, timing and locations, routine monitoring (e.g. annual bathymetry and comparisons to initial (1981) and designation (2010) baselines) and/or special studies, and other considerations drawing on the then-current Site use conditions and SMMP. The USACE, as prime user of the Sites and as permitting authority, will take the lead to draft the summary and provide it to EPA each spring. If applicable, the USACE annual summary will include sediment volumes from permitted disposal actions. Once reviewed by EPA, with an opportunity for EPA's recommendations/suggested changes to be incorporated, and with an opportunity for the Corps and EPA to discuss any more-recent site-specific information, the summary will constitute the template for that year's disposal. EPA recognizes that the summary cannot anticipate every operational situation. Day-to-day flexibility in dredging and disposal decisions will be necessary, however, the user will make every effort to consult and coordinate with EPA and will seek EPA's concurrence before changes are initiated. Such changes could include decisions to increase the spacing between

dumping positions, to shift disposal operations to other portions of the Sites, or to redistribute placement of material between the Sites.

Record-Keeping and Reporting Requirements

EPA must review and concur on Corps-issued dredged material ocean disposal permits, and on Corps “self-permits” for Corps-sponsored dredged material ocean disposal. EPA’s concurrence on Corps-issued “self-permits” and Corps-issued dredged material ocean disposal permits, may result in additional conditions that affect record-keeping and reporting requirements (as deemed necessary to support Site management). All site users are required to keep daily records of disposal activities indicating where material was dredged and where and how material was disposed of at the Site(s). The start and endpoint coordinates must be recorded for each load placed. The annual summary report must include all annual and cumulative quantities disposed at each Site. When needed for adaptive management, the Corps and/or EPA may also request placement plots showing which portions of each Site were used for disposal that dredging year.

The annual summary assessment report and data reports from any routine monitoring or special studies must be compiled and submitted to EPA (ATTN: Region 10, Pacific Northwest Ocean Dumping Coordinator). These results will be evaluated by the EPA and USACE, and these agencies will attempt to make consensus decisions concerning the need for management changes regarding the Sites. While a consensus process is the goal, EPA has final authority over Site management decisions. Finally, all users shall notify EPA when in-water work is to begin. In spring of any given year, Portland District will submit an annual dredging schedule to EPA. All users shall notify EPA (via telephone or email) of the disposal schedule as they become available. Portland District shall notify EPA not less than 15 days prior to the beginning of a dredging cycle or project disposal. Holders of Section 103 permits shall notify EPA not less than 20 days prior to use of the Sites in a given dredging year.

Inspection and Surveillance Provisions

EPA will typically utilize the inspection and surveillance capabilities of the USACE and the U.S. Coast Guard (USCG). For example, contract dredges are periodically inspected by USACE personnel to ensure dredging and disposal takes place in the correct locations, and USACE dredges are responsible for ensuring their own proper positioning. EPA may also choose to implement its own inspection and surveillance requirements using EPA personnel or contractors. It is expected that EPA and the USACE will coordinate with each other on any special inspections and surveillance.

Special Management Conditions or Practices

The following special management conditions will be implemented at the Siuslaw North and South Sites.

Placement Strategy

The placement strategy has a large influence on the consequences of disposal in any site. Placement strategies vary, ranging from individual dumps to the long-term distribution of material. Both EPA and USACE policy establishes a preference for beneficial use of dredged material when practical. A uniform placement strategy will be applied to both Siuslaw Sites; however, the specific manner in which this strategy will be applied at each Site may differ due to the greater dispersive or less-

dispersive characteristics of different depth zones. Application of “uniform placement” is most critical to each annual disposal series. At the Siuslaw Sites uniform placement means the spreading of disposal activity within the Sites, rather than spot dumping. Uniform placement at the Sites is expected to result in a relatively uniform accumulation on the bottom. Application of “uniform placement” is an expected outcome over the long-term and multiple-year disposals, rather than a placement regime to be achieved during each dredging season, particularly in the offshore zones where dispersal is very slow.

The shallow, nearshore portions of the North Site are expected to have greater potential to provide a positive benefit as dispersion of sediments is inshore toward the beaches as well as along existing bathymetric contours. Dredged material is to be preferentially placed in the North Site, in the nearshore area, if capacity is available in that location. Exceptions to this requirement may include: (1) material or equipment incompatibility; (2) weather or navigation safety conflicts (e.g., use of multiple dredges); (3) expected volumes exceed annual capacity in any year; (4) conflict with non-federal conditions; and/or (5) specific restriction or direction by EPA.

Equipment Considerations

The type of dredge used influences the dimensions of the individual and cumulative dump mound. No specific disposal technique is required at the Siuslaw North and South Sites. For the hopper dredges that commonly work the Siuslaw River federal navigation project, such as the USACE’s multiple bottom-door hopper dredge *Yaquina*, each load would produce a thinner deposit than the typical split-hull contract hopper dredges at any given water depth. Material discharged from a split-hull barge is typically more consolidated than material discharged from a hopper dredge. Hopper dredges are the dredge type normally deployed at Siuslaw River for sandy material.

Quantity, Seasonal Weather and Environmental Restrictions

Quantities placed at the North and South Sites will vary year-to-year depending on project shoaling. Disposal volumes and placement will be closely monitored and documented to verify uniform placement and to assess dispersive capability. Adverse sea and weather conditions limit dredging and disposal to a period typically from June 1 through October 31. Even during the dredging season, storm events can restrict disposal events. In the event that new information or monitoring results reveal the need for any additional restrictions, disposal activities will be scheduled so as to avoid unacceptable adverse effects.

Equipment Requirements and Discharge Point

Hopper dredges or clamshell and barge operations could include USACE and private contract dredges and barges. All such operations are required to meet all U.S. Coast Guard requirements for safety. They are also required to use modern global positioning equipment capable of fixing their location within plus or minus 3 feet to ensure that material is placed within the designated disposal sites. As stated in the reporting requirements section, daily records are required of dredgers indicating where material was dredged and where and how material was placed when disposed. The start and endpoint coordinates for each load disposed at the North or South Sites must be recorded and shall be reported when requested by either EPA or the Corps.

Debris Removal Provisions

Debris is material that could cause interference with particular uses of the ocean. Floatable debris might include logs, wood chunks, or plastics that can be navigation hazards or that could foul

beaches. Non-floatable debris comprises material that could reasonably be expected to cause conflicts with bottom-net or trawl fishing such as logs, pilings, rip-rap and concrete. As a general rule, non-floatable, non-sediment materials that would pass through a 24-inch x 24-inch mesh is not considered debris if it is natural in origin and only occasionally found within, and therefore dredged as part of, the sediment matrix. This would only be a potential issue for clamshell dredging as hopper and pipeline dredges are incapable of picking up large debris.

Typically, the planning or permitting process assesses the potential risks of any debris that could be encountered during dredging. Should debris be identified as a potential issue, the USACE or EPA may make dredging or disposal area inspections to ensure that a contractor is in compliance with the approved operating plans, and that debris is removed prior to discharge at the Sites. The preference is that floatable debris be removed at the dredging area, however, circumstances may occur where it must be picked out of the water at the disposal area. Clamshell-dredged sediments, which contain debris that is not easily removed, may require screening through a 24-inch x 24-inch mesh or grid structure. The mesh must be periodically cleaned and the debris disposed of according to the approved dredging and disposal plan

Disposal of debris at the Sites is prohibited. Dredging contractors and USACE dredge captains are required to maintain a record of the handling of debris encountered during dredging and disposal. Compliance inspectors may review these records. If debris is encountered, copies of dredging logs recording management of debris shall be provided to EPA.

Quantity of Material and Presence of Contamination

Section 102(c)(3)(D) of the MPRSA requires that management plans include consideration of the quantity of the material to be disposed of at the site, and the presence, nature, and bioavailability of the contaminants in the material.

The dredged material placed is not expected to remain within the boundaries of the Siuslaw Sites after disposal. The rate and direction of movement across the boundaries of the Sites are determined by physical transport mechanisms. Depending on these transport mechanisms and the nature of the material, transport may be rapid and continuous, or may occur only during episodic events, such as storms or seasonal changes in transport mechanisms.

Only clean dredged material can be placed into the ocean under current statutes and regulations. Material suitability must be documented prior to disposal at the Sites. This is typically completed as part of regulatory permitting (non-USACE) or the USACE substantive review process. EPA will review all sediments to be placed at the Siuslaw North and South Sites according to applicable current requirements of the MPRSA, national guidance, and local/regional manuals, and will determine whether material is suitable for that purpose.

Characterization records of dredged material approved to be disposed at the Siuslaw Sites shall typically be retained by the USACE—either as the entity responsible for the dredging and disposal [Planning and/or Operations and Maintenance (O&M) program] or the permitting agency (regulatory permits). Sediment evaluation reports for USACE O&M projects will be posted on the web at <https://www.nwp.usace.army.mil/ec/dme.asp>. Ultimately, all sediment data will be routinely entered into the publicly available RDT sediment database. Secondary copies of characterizations will be retained by EPA.

Site Management Plan Review and Revision

Section 102(c)(3)(F) of the MPRSA requires that SMMPs include a schedule for plan review and revision. SMMP revisions will be made as determined necessary by EPA. If the results of monitoring or special studies indicate that the continued use of the Sites would lead to unacceptable effects, then this SMMP will be modified as necessary to mitigate the adverse effects. At least every 10 years after the effective date of this SMMP and throughout the life of the Sites, the EPA will conduct a substantive review of the SMMP and make modifications as necessary. These reviews will involve coordination with other agencies, technical experts, and stakeholders.

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