

RULES and REGULATIONS
ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 228

(FRL 4701-1)

Ocean Dumping; Site Designation

Thursday, September 2, 1993

***46544** AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: In this action EPA designates an Ocean Dredged Material Disposal Site (ODMDS) in the Atlantic Ocean offshore Fort Pierce, Florida, as an EPA-approved ocean dumping site for the dumping of suitable dredged material. This action is necessary to provide an acceptable ocean dumping site for consideration as a disposal option for dredged material disposal projects in the Fort Pierce, Florida vicinity. This final site designation is for an indefinite period of time but is subject to continued monitoring in order to insure that unacceptable adverse environmental impacts do not occur.

EFFECTIVE DATE: This designation shall become effective on October 4, 1993.

ADDRESSES: Wesley B. Crum, Chief, Coastal Programs Section, Water Management Division, U.S. Environmental Protection Agency, Region IV, 345 Courtland Street, NE., Atlanta, Georgia 30365.

The file supporting this designation is available for public inspection at the following locations:

EPA Public Information Reference Unit (PIRU), room 2904 (rear), 401 M Street, SW., Washington, DC 20460.

EPA/Region IV, 345 Courtland Street, NE., Atlanta, Georgia 30365.

Department of the Army, Jacksonville District Corps of Engineers, P.O. Box 4970, Jacksonville, FL 32232-0019.

FOR FURTHER INFORMATION CONTACT: Christopher J. McArthur, 404/347-1740.

SUPPLEMENTARY INFORMATION:

A. Background

Section 102(c) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972, as amended, [33 U.S.C. 1401](#) et seq. ("the Act"), gives the Administrator of EPA the authority to designate sites where ocean disposal may be permitted. On October 1, 1986, the Administrator delegated the authority to designate ocean dumping sites to the Regional Administrator of the Region in which the sites are located. This designation of a

site offshore Fort Pierce, Florida, which is within Region IV, is being made pursuant to that authority.

The EPA Ocean Dumping Regulations promulgated under the Act ([40 CFR chapter I, subchapter H, §228.4](#)) state that ocean dumping sites will be designated by promulgation in this part 228. A list of “Approved Interim and Final Ocean Dumping Sites” was published on January 11, 1977 (42 FR 2461 (January 11, 1977)). The list established the existing Fort Pierce site as an interim site.

B. EIS Development

Section 102(2)(C) of the National Environmental Policy Act (NEPA) of 1969, as amended, [42 U.S.C. 4321](#) et seq., requires that federal agencies prepare an Environmental Impact Statement (EIS) on proposals for legislation and other major federal actions significantly affecting the quality of the human environment. The object of NEPA is to build careful consideration of all environmental aspects of rulemakings into the agency decision-making process. EPA has committed to prepare EISs in connection with ocean disposal site designations such as this.

EPA, in cooperation with the Jacksonville District of the U.S. Army Corps of Engineers (COE), has prepared a Final EIS entitled “Final Environmental Impact Statement for Designation of a Fort Pierce, Florida Ocean Dredged Material Disposal Site.” This Final Rule may include excerpts from the EIS. Anyone desiring a copy of the EIS may obtain one from the address given above. The public comment period on this EIS will close on September 13, 1993.

The action discussed in the EIS is the permanent designation of an ocean dredged material disposal site near Fort Pierce, Florida. The purpose of the action is to provide an environmentally acceptable location for ocean disposal.

The need for the permanent designation of the Fort Pierce ODMDS is based on a continuing U.S. Army Corps of Engineers need for ocean disposal of maintenance dredged material from the Fort Pierce area. The need for ocean disposal will be determined on a case-by-case basis as part of the COE's process of issuing permits for ocean disposal for private/federal actions and a public review process for their own actions.

For the Fort Pierce Harbor ODMDS, the COE and EPA would evaluate all federal dredged material disposal projects pursuant to the EPA criteria given in the Ocean Dumping Regulations (40 CFR parts 220-229) and the COE regulations (33 CFR 209.120 and [209.145](#)).

The COE also issues MPRSA permits to private applicants for the transport of dredged material intended for disposal after compliance with these regulations is determined. EPA has the right to disapprove any ocean disposal project if, in its judgement, all provisions of MPRSA and the associated implementing regulations have not been met.

The EIS discusses the need for this site designation and examines ocean disposal site alternatives to the final action. The EIS presents the information needed to evaluate the suitability of ocean disposal areas for final designation use and is based on one of a series of disposal site environmental studies. The environmental studies and final designation are being conducted in accordance with the requirements of the MPRSA, the Ocean Dumping Regulations, and other applicable federal environmental legislation.

EPA has evaluated the site designation for consistency with the State of Florida's (the State) approved coastal

management program. EPA has determined that the designation of the site is consistent to the maximum extent practicable with the State coastal management program, and has submitted this determination to the State for review in accordance with EPA policy. In addition, as part of the NEPA process, EPA has consulted with the State regarding the effects of the dumping at the site on the State coastal zone. EPA concurs with the state of Florida regarding the use of suitable material for beach nourishment, in circumstances where this use is practical and environmentally sound.

Pursuant to section 7 of the Endangered Species Act, the National Marine Fisheries Service (NMFS) has been asked by EPA to concur with EPA's conclusion that this site designation will not affect the endangered species under their jurisdictions. The NMFS in a letter dated March 3, 1993 concurred with the determination that populations of endangered or threatened species under their purview would not be adversely affected by the action.

***46545** This final rulemaking notice fills the same role as the Record of Decision required under regulations promulgated by the Council on Environmental Quality for agencies subject to NEPA.

C. Site Designation

On March 5, 1993, EPA proposed designation of this site to provide an acceptable ocean dumping site for consideration as a disposal option for dredged material disposal projects in the Fort Pierce, Florida vicinity. The public comment period on this proposed action closed on April 5, 1993. No comments were received on the proposed rule.

The site is located east of Fort Pierce Harbor, Florida, approximately 4 nautical miles (nmi) offshore and occupies an area of about 1 square nautical mile (nmi^2), approximately 1 nmi by 1 nmi. Water depths within the area range from 40 to 54 feet. The coordinates of the Fort Pierce site are as follows:

27degrees28'00"N 80degrees12'33"W;

27degrees28'00"N 80degrees11'27"W;

27degrees27'00"N 80degrees11'27"W; and

27degrees27'00"N 80degrees12'33"W.

Center coordinates are 27degrees27'30"N and 80degrees12'00"W.

D. Regulatory Requirements

Pursuant to the Ocean Dumping Regulations, 40 CFR part 228, five general criteria are used in the selection and approval for continuing use of ocean disposal sites. Sites are selected so as to minimize interference with other marine activities, to prevent any temporary perturbations associated with the disposal from causing impacts outside the disposal site, and to permit effective monitoring to detect any adverse impacts at an early stage. If, at any time, disposal operations at a site cause unacceptable adverse impacts, further use of the site will be restricted or terminated.

The general criteria are given in §228.5 of the EPA Ocean Dumping Regulations, and §228.6 lists the 11 specific factors used in evaluating a proposed disposal site to assure that the general criteria are met. The site, as discussed below under the eleven specific factors, is acceptable under the five general criteria except for the prefer-

ence for sites located off the Continental Shelf. EPA has determined, based on the information presented in the Final EIS, that a site off the Continental Shelf is not feasible and that no environmental benefit would be obtained by selecting such a site instead of that stated in this action. Historical use at the existing site has not resulted in substantial adverse effects to living resources of the ocean or to other uses of the marine environment.

The characteristics of the site are reviewed below in terms of these 11 factors.

1. Geographical Position, Depth of Water, Bottom Topography, and Distance From Coast (40 CFR 228.6(a)(1))

The boundary and center coordinates of the site are given above. The site is located about 4 nmi offshore of Fort Pierce Harbor, Florida. The site is approximately a 1 nmi by 1 nmi square configuration. Water depth in the area ranges from 40 to 54 feet.

2. Location in Relation to Breeding, Spawning, Nursery, Feeding, or Passage Areas of Living Resources in Adult or Juvenile Phases (40 CFR 228.6(a)(2))

The Fort Pierce ODMDS is located in general proximity to breeding, spawning, nursery, feeding, and passage areas for a wide variety of marine and estuarine organisms. The most active breeding and nursery areas are located in the Indian River estuary and along adjacent beaches or in offshore waters and reef areas. While breeding, spawning, and feeding activities may take place in the ODMDS, these activities are not believed to be confined to, concentrated in, or dependent on this area. Specific migration routes are not known in the Fort Pierce area. While marine and estuarine species would be expected to pass through the ODMDS, passage is not geographically restricted to this area. The motility of organisms passing through the area makes significant impacts from dredged material disposal unlikely.

3. Location in Relation to Beaches and Other Amenity Areas (40 CFR 228.6(a)(3))

Beaches and adjacent nearshore areas approximately 4 nmi west of the ODMDS support a wide variety of recreational activities. Several protected areas lie inshore west of the ODMDS. The largest of these is the Indian River Aquatic Preserve that encompasses almost all inshore waters between the barrier islands and the west Florida mainland. Other protected areas in the Fort Pierce ODMDS vicinity include the North Fork St. Lucie Aquatic Preserve, the Savannas State Preserve, Pepper Beach State Park, and Fort Pierce Inlet State Park. The Florida Department of Environmental Regulation (FDER) has given the waters of these areas special protection by designating them as Outstanding Florida Waters (OFWs). Past surveys indicated one natural reef and one artificial reef site are located in the Fort Pierce ODMDS vicinity. The natural reef area is located approximately 1.3 nmi due east of the disposal site and has been described by Florida Sea Grant (1979) as a flat bottom with heavy coral growth. The artificial reef site has been established approximately 1.5 nmi southeast of the ODMDS. More recent investigations have revealed the presence of hard bottom communities in the northern portion of the interim site resulting in a shift in location of the site to 0.5 miles to the south. Model studies indicates that it is unlikely that any significant amount of disposed material would be transported as far as these sites from the disposal area.

4. Types and Quantities of Wastes Proposed To Be Disposed of, and Proposed Methods of Release, Including Methods of Packing the Waste, if Any (40 CFR 228(a)(4))

It is anticipated that the site will be used primarily for disposal of maintenance material from the Fort Pierce Harbor entrance channel and turning basin. Sediments of the entrance channel are predominantly sand, while

those of the turning basin are finer sands, shell and silt. Annual volumes have averaged 21,000 cubic yards. Annual volumes are expected to increase to a maximum of approximately 117,000 cy. Each disposal plan must be evaluated on a case-by-case basis to ensure that ocean disposal is the best alternative and that the material meets the Ocean Dumping Criteria in 40 CFR part 227.

5. Feasibility of Surveillance and Monitoring (40 CFR 228.6(a)(5))

The geographic and physical setting of the candidate site poses no special problems for monitoring or surveillance. Water depth at the site is amenable to diver collection or surface sampling and does not require use of a large, specialized surface vessel. The areal extent of the site allows use of towed trawls for bottom and water column sampling. Baseline data collected at the site can serve as reference information for future monitoring and aid in assessing possible perturbations resulting from disposal at the site. A detailed Site Management and Monitoring Plan (SMMP) was developed for the Fort Pierce ODMDS. A copy of the SMMP can be found in the EIS. This plan establishes a sequence of monitoring surveys to be undertaken to determine any impacts resulting from disposal activities. These surveys can include bathymetry, sediment tracking, benthic faunal analyses, video and side scan sonar surveys.

**46546 6. Dispersal, Horizontal Transport and Vertical Mixing Characteristics of the Area Including Prevailing Current Direction and Velocity, if Any (40 CFR 228.6(a)(6))*

Currents in the area are mainly wind driven. Net current flow is alongshore with the direction of movement related to season. In 1989, the Army Corps of Engineers Waterways Experiment Station (WES) performed a technical study of the Gulf Stream meanders, spin-off eddies and prevailing tides and currents off the east coast of Florida with respect to the potential for contamination of nearshore amenities by dredged material placed in the Fort Pierce ODMDS. A numerical modeling approach was used for estimating both short-term and long-term rate of dredged material dispersal at the ODMDS. The modeling of the short-term dumping operation was performed using the disposal from an Instantaneous Dump (DIFID) model. Long-term simulations were conducted to determine whether non-storm related currents are capable of transporting sediments outside of the ODMDS over long periods of time. The effects of storm erosion were separately modeled by simulating the passage of a storm surge over the site. Current velocities used were estimated. The results of the study indicate that the Fort Pierce ODMDS poses no threat to reef areas.

7. Existence and Effects of Current and Previous Discharges and Dumping in the Area (Including Cumulative Effects) (40 CFR 228.6(a)(7))

Dredged materials have been disposed at the Fort Pierce Harbor interim ODMDS since 1949. An environmental survey of the Fort Pierce Harbor ODMDS was conducted in December 1985. This survey detected no consistent differences in water quality, sediment quality, or sediment composition between the ODMDS and nearby areas. Potential disposal-induced changes in benthic macro-invertebrate community structure were localized within the ODMDS and did not extend beyond ODMDS boundaries. Prior disposals at the ODMDS have resulted in minor localized changes in the community structure of the area. Deposit feeding macroinfauna are dominant at the disposal site while suspension feeding macroinfauna are dominant in the surrounding area. This may be due to higher organic content in the discharged materials. If this is the case, it would be an indication of the high level of stability of the discharged materials since the last disposal took place in May 1983. There are no differences in the abundance or diversity of the meiofauna of the disposal area, although nematode:harpacticoid ratios are highest within the disposal area, which may be a further indication of the higher organic content of the dis-

charged materials. No differences in epibenthic invertebrate, fish, or plankton populations are evident. It is expected that any further discharge at the site would not significantly change these conditions.

8. Interference With Shipping, Fishing, Recreation, Mineral Extraction, Desalination, Fish and Shellfish Culture, Areas of Special Scientific Importance and Other Legitimate Uses of the Ocean (40 CFR 228.6(a)(8))

The Fort Pierce Harbor ODMDS is located about 2.5 nmi outside the seaward extent of the Fort Pierce Inlet entrance channel. Use of this site to date has not interfered with shipping and continued intermittent use of the site should not disrupt either commercial shipping or recreational boating.

Most commercial and recreational fishing activity is concentrated in inshore and nearshore waters or at offshore natural or artificial reefs. The nearest natural reef is located 1.3 nmi east of the disposal site (Florida Sea Grant, 1979). Because of the north-south orientation of the prevailing currents, no adverse impacts to this reef area have occurred from dredged material disposal operations. An artificial reef area has recently been established approximately 1.5 nmi southeast of the ODMDS.

No mineral extraction, desalination, or mariculture activities occur in the immediate area. Recreational and scientific resources are extensive throughout the area but are not geographically limited to the disposal site or nearby waters.

9. The Existing Water Quality and Ecology of the Site as Determined by Available Data or by Trend Assessment or Baseline Surveys (40 CFR 228.6(a)(9))

Water quality at the ODMDS is variable and influenced both by discharges from inshore estuarine systems and by periodic oceanic intrusions. Estuarine discharges are greatest during the wet season, from late summer to early fall, and may deliver both nutrients and anthropogenic contaminants to coastal waters. Nutrients may also be introduced to shelf waters by upwellings (Worth and Hollinger, 1977). Surface and bottom waters sampled in the ODMDS vicinity in December 1985 did not contain measurable concentrations of selected trace metals, pesticides, hydrocarbons, or PCBs.

Benthic communities in the ODMDS vicinity have been described from a survey conducted in December 1985 and 1992. Nematodes, copepoda crustaceans, and larval polychaetes are the most abundant representatives of the meiofaunal community. The area's diverse benthic macroinvertebrate fauna are dominated by carnivorous polychaete worms of the family Syllidae. Other abundant macroinfaunal groups included nematodes, oligochaete worms, molluscs, amphipod crustaceans and turbellarians.

Epibenthic invertebrates characteristics of the disposal site vicinity include the crabs *Portunus gibbesi* and *Portunus spinimanus*, the shrimp, *Trachypenaeus constrictus*, the sea urchin, *Lytechinus variegatus*, starfish and brittle stars (Camp et al, 1977).

The demersal fish fauna of the area are not abundant (Futch and Dwinell, 1977). Fish characteristic of the sandy offshore ODMDS environment include leopard sea robin (*Prionotus scitulus*), sand perch (*Diplectrum formosum*), and lizardfish (*Synodus foetens*).

10. Potentiality for the Development or Recruitment of Nuisance Species in the Disposal Site (40 CFR 228.6(a)(10))

The Fort Pierce Harbor ODMDS has been utilized since 1949. To date, no nuisance species have been reported

from the interim ODMDS or nearby previously utilized disposal sites. The potential for the development or recruitment of nuisance species at this site is considered quite low. A December 1985 survey of the ODMDS vicinity yielded no evidence of undesirable organisms.

11. Existence at or in Close Proximity to the Site of Any Significant Natural or Cultural Features of Historical Importance (40 CFR 228.6(a)(11))

It is unlikely that significant natural or cultural features of historical importance exist at the disposal site. In the unlikely event that historical features are present on site, they will have been covered with sand and would be further covered by continued disposal operations.

E. Site Management

Site management of the Fort Pierce ODMDS is the responsibility of EPA as well as the COE. The COE issues permits to private applicants for ocean disposal; however, EPA/Region IV assumes overall responsibility for site management.

***46547** A Site Management and Monitoring Plan (SMMP) was developed as a part of the process of completing the EIS. This plan will be revised and maintained as a living document by a Site Monitoring and Management Team consisting of representatives of EPA, COE, other federal agencies, and state agencies. This plan provides a framework for both site management and for the monitoring of effects of disposal activities. Site management may include strategically locating and/or orienting dredged material within the site boundaries relative to predominant current patterns. Monitoring could involve sediment mapping of disposed material to determine any movement of material off of the site. Determination of the significance of any biological impacts of dredged material outside the ODMDS boundaries would then be appropriate. The SMMP can be found in Appendix D of the EIS.

F. Action

The EIS concludes that the site may appropriately be designated for use. The site is compatible with the general criteria used for site evaluation.

The designation of the Fort Pierce site as an EPA-approved ODMDS is being published as final Rulemaking. Overall management of this site is the responsibility of the Regional Administrator of EPA/Region IV.

It should be emphasized that, if an ODMDS is designated, such a site designation does not constitute EPA's approval of actual disposal of material at sea. Before ocean dumping of dredged material at the site may commence, the COE must evaluate a permit application according to EPA's Ocean Dumping Criteria. EPA reviews and has the right to disapprove the actual dumping if it determines that environmental concerns under the Act have not been met.

The Fort Pierce ODMDS is not restricted to disposal use by Federal Projects; private applicants may also dispose suitable dredged material at the ODMDS once relevant regulations have been satisfied. This site is restricted, however, to suitable dredged material from the Fort Pierce Harbor, Florida vicinity.

G. Regulatory Assessments

Under the Regulatory Flexibility Act, EPA is required to perform a Regulatory Flexibility Analysis for all rules

that may have a significant impact on a substantial number of small entities. EPA has determined that this action will not have a significant impact on small entities since the designation will only have the effect of providing a disposal option for dredged material. Consequently, this Rule does not necessitate preparation of a Regulatory Flexibility Analysis.

Under [Executive Order 12291](#), EPA must judge whether a regulation is “major” and therefore subject to the requirement of a Regulatory Impact Analysis. This action will not result in an annual effect on the economy of \$100 million or more or cause any of the other effects which would result in its being classified by the Executive Order as a “major” rule. Consequently, this Rule does not necessitate preparation of a Regulatory Impact Analysis.

This Rule does not contain any information collection requirements subject to Office Management and Budget review under the Paperwork Reduction Act of 1980, [44 U.S.C. 3501](#) et seq.

List of Subjects in 40 CFR Part 228

Water pollution control.

Dated: July 30, 1993.

Approved by:

Patrick M. Tobin,

Acting Regional Administrator.

In consideration of the foregoing, subchapter H of chapter I of title 40 is amended as set forth below.

PART 228—(AMENDED)1. The authority citation for part 228 continues to read as follows:

Authority: [33 U.S.C. 1412](#) and [1418](#).

[40 CFR § 228.12](#)

2. [Section 228.12](#) is amended by removing from paragraph (a)(3) the dredged material disposal site “Fort Pierce Harbor” and adding paragraph (b)(93) to read as follows:

[40 CFR § 228.12](#)

[§228.12](#) Delegation of management authority for ocean dumping sites.

* * * * *

(b) *

(93) Fort Pierce Harbor; Fort Pierce, Florida; Ocean Dredged Material Disposal Site ____ Region IV.

Location:

27degrees28'30"N 80degrees12'33"W;

27degrees28'30"N 80degrees11'27"W;

27degrees27'30"N 80degrees11'27"W; and

27degrees27'30"N 80degrees12'33"W.

Size: 1 square nautical miles.

Depth: Average range 40 to 54 feet.

Primary use: Dredged material.

Period of use: Continuing use.

Restrictions: Disposal shall be limited to suitable dredged material from the greater Fort Pierce, Florida vicinity. All dredged material consisting of greater than 10% fine grained material (grain size of less than 0.074mm) by weight shall be limited to that part of the site east of 80degrees12'00"W and south of 27degrees27'20"N.

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58 FR 46544-01, 1993 WL 332085 (F.R.)

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