above reasons, EPA has determined that aesthetic impacts of plumes, transport of dredged material to any shoreline, and alteration of any habitat of special biological significance or marine sanctuary is not expected to occur if this site is designated.

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 228.6(a)(4)). Over 800,000 cubic yards of dredged material are generated annually as a result of federal maintenance dredging operations by the Corps in Humboldt and Harbor. In addition, larger volumes of dredged material (e.g., from deepening projects) may also be generated periodically. Typical composition of dredged material disposed at the site is expected to range between two types:

"predominantly sand" (grain size greater than 0.075 millimeters) versus 'predominantly silt-clay'' (grain size less than 0.075 millimeters). These material types are based on data from historical projects from the Humboldt Bay region. The expected typical disposal method would involve hopper dredges (hydraulic dredging), with a maximum capacity of up to 5,000 cubic yards but typically carrying loads of approximately 2,000-3,000 cubic yards of dredged material per trip. Dredged material would not be packaged. All dredged material proposed for disposal at the site must be suitable for ocean disposal. This determination will be made by EPA Region IX and the Corps' San Francisco District based upon the results of an evaluation of information developed in accordance with the 1991 EPA/Corps "Green Book" (e.g., physical, chemical and biological tests) before a MPRSA Section 103 permit can be issued. Dumping of prohibited materials or other industrial or municipal wastes will not be permitted at the site (40 CFR 227.5 and 227.6(a)).

Existing information suggests that it is appropriate to dispose, via hopper dredge or bottom-dump barge, of the type of dredged material that will be removed from the Humboldt Bay region at the HOODS. Because of the site's depths and slow current speeds, the dredged material is expected to settle rapidly to the ocean bottom within the boundaries of the site and not to create plumes which will reach significant areas such as marine sanctuaries, recreational areas, or geographically limited habitats at greater than background concentrations. Disposing dredged material at the site which meets regulatory criteria for ocean dumping is expected to create some limited alteration of benthic habitat within site

boundaries, but should not create substantial adverse impacts extending beyond site boundaries. For these reasons, no significant adverse impacts are expected to be associated with the types and quantities of dredged material that may be disposed at the site.

5. Feasibility of surveillance and monitoring (40 CFR 228.6(a)(5)). EPA Region IX and the Corps' San Francisco District share the responsibilities of managing and monitoring the disposal site, and, with the on-site assistance of the U.S. Coast Guard (USCG), to enforce permit conditions within the limits of their jurisdiction. The HOODS is located between approximately 3 and 4 nautical miles (5 and 7 kilometers) offshore and occupies an area ranging in depth from 160 to 180 feet (49 to 55 meters). Standardized equipment and techniques would be used for surveillance and monitoring activities during transit to and at the site, as described in the SMMP included in the Final EIS. Based on previous experience at other ocean dredged material disposal sites located farther offshore and in deeper waters, EPA has determined that the surveillance and monitoring activities are fully feasible to implement at the HOODS.

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)). Ocean currents in the vicinity of the HOODS flow predominantly to the northwest and offshore in the winter and predominantly to the southwest and offshore in the summer. Current speeds are usually on the order of 0.5 knot (25 centimeters per second) at the surface and less at depth. These flows may be strongly influenced by local winds and tides. Any residual suspended solids from disposal operations at the HOODS are expected to move primarily to the northwest or southwest depending on the oceanographic season during any one year and generally in the offshore direction throughout the year. Because of the relatively deep depths and slow current speeds, it is predicted that the vast bulk of the disposed material will remain within the disposal site. For these reasons, EPA has determined that the dispersal, transport and mixing characteristics of the site, and its current velocities and directions, are appropriate for its designation as a dredged material disposal site.

7. Existence and effects of current and previous discharges and dumping in the area (including cumulative effects) (40 CFR 228.6(a)(7)). Under an MPRSA Section 103 permit, the Corps has been discharging on average over 800,000 cubic yards of dredged material at the HOODS. The NDS has been used for two disposal episodes, totaling over 1.4 million cubic yards. The SF–3 site has been used for dredged material from maintenance dredging operations since the 1940's. It is estimated that a total of 20 to 25 million cubic yards of dredged material from the Humboldt Bay federal navigation channels has been disposed at the SF–3 site. No other documented disposal of dredged material has occurred within or in the vicinity of the site.

In addition, no other discharges occur in the immediate vicinity of the HOODS. The Simpson Paper Company presently discharges freshwater through an outfall into ocean waters adjacent to the Samoa Peninsula, although historically it discharged bleached kraft pulp effluent. The outfall is approximately 3 nautical miles (5.5 kilometers) east of the HOODS, 3 nautical miles (5.5 kilometers) north of the SF-3 site, and 3.5 nautical miles (6.5 kilometers) north of the NDS. The Louisiana Pacific Corporation owns and operates a market bleached kraft pulp mill located on the Samoa Peninsula. The discharge from this outfall consists of: process wastewater from kraft pulping, pulp bleaching, and pulp drying; solids from its water treatment plant; power boiler effluent; and stormwater. As authorized under its National Pollutant Discharge Elimination System (NPDES) Permit, the Louisiana Pacific Corporation is prohibited from discharging waste water in violation of effluent standards or prohibitions established under Section 307(a) of the Clean Water Act, and it is prohibited from discharging sewage sludge. The outfall is located approximately 3.5 nautical miles (6.5 kilometers) east of the HOODS, 3.5 nautical miles (6.5 kilometers) north of the SF-3 site, and 4 nautical miles (7.5 kilometers) north of the NDS. Prevailing nearshore currents would direct discharge plumes from both outfalls up or down the coast, depending of the seasonal current regime, not offshore towards the HOODS. The effects of discharges are expected to be limited to local areas near the outfalls and to not extend to the vicinity of the ocean dredged material disposal site (HOODS).

For the above reasons, EPA has determined that there are no expected adverse cumulative or synergistic impacts from the use of the HOODS and discharges from the outfalls described above.

8. Interference with shipping, fishing, recreation, mineral extraction, desalination, fish and shellfish culture, areas of special scientific importance