

Occurrence of these species varies by season. Use of the sites by whales and endangered birds would be incidental. The presence of sea turtles may occur in this area of the proposed sites during the summer and fall. It is not expected that dredging activities would have any significant adverse effect on these species or their critical habitat. Disposal at both of the proposed sites is expected to result in the mortality of benthic organisms as an immediate result of material burying organisms on the seafloor. However, recolonization at the disposal sites is expected to occur within a year or more after a disposal event. With respect to the other living resources that use the proposed CLIS and WLIS sites, the sites are not being located in areas that provide limited or unique breeding, spawning, nursery, feeding, or passage areas.

3. Location in Relation to Beaches and Other Amenity Areas (40 CFR 228.6(a)(3)). The CLIS and WLIS disposal sites are within the semi-enclosed Long Island Sound estuary. The closest beaches, refuges, sanctuaries or areas of special concern are at least two nautical miles from either disposal site. The CLIS and WLIS disposal sites are approximately 6 nautical miles (11 kilometers) from the closest beaches (Short Beach and Calf Pasture Beach, respectively). For the CLIS disposal site, the closest refuge or sanctuary (approximately seven nautical miles) is the Outer Island Unit of the Stewart B. McKinney National Wildlife Refuge. Areas of special concern at the CLIS site include Quinnipiac River Marsh Wildlife Management Area, Great Harbor, Wildlife Management Area and Wild wood State Park. For the WLIS disposal site, the closest refuge or sanctuary is the Stewart B. McKinney National Wildlife Refuge, Caumsett State Park and Target Rock National Wildlife Refuge. It is expected that impacts would not occur to beaches, areas of special concern, parks, natural resources, sanctuaries or refuges since they are either land-based or further than two nautical miles from either proposed disposal site. Therefore, EPA has determined that dredged material disposal at the preferred disposal site locations should not have any adverse effect on beaches or other amenity areas, including wildlife refuges or other areas of biological or recreational significance.

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)). The typical composition of dredged material to be disposed at the sites is expected to range from predominantly "clay-silt" to

"mostly sand." This expectation is based on data from historical projects from the Central and Western Regions of Long Island Sound. The disposal of this material shall occur at designated buoys and would be expected to be placed so as to concentrate material from each disposal. This placement is expected to help minimize bottom impacts to benthic organisms. Suitability determinations will be made before authorization for disposal under MPRSA section 103 and CWA section 404 will be issued. The sites that are proposed to be designated will receive dredged materials determined to be suitable for ocean disposal that are transported by either government or private contractor hopper dredges or ocean-going bottom-dump barges towed by tugboat. Both types of equipment release the material at or very near the surface.

Furthermore, it should be emphasized that these disposal sites are being proposed for designation only to receive dredged material; disposal of other types of material at these sites will not be allowed. It should also be noted that the disposal of certain other types of material is expressly prohibited by the MPRSA and EPA regulations (e.g., industrial waste, sewage sludge, chemical warfare agents). See, e.g., 33 U.S.C. 1414b; 40 CFR 227.5(b). For these reasons, no significant adverse impacts are expected to be associated with the types and quantities of dredged material that may be disposed of at the sites.

5. Feasibility of Surveillance and Monitoring (40 CFR 228.6(a)(5)). Monitoring and surveillance are expected to be feasible at both proposed sites. Both sites are readily accessible for bathymetric surveys and have undergone monitoring, including side-scan sonar. If field monitoring of the disposal activities is required because of a future concern for habitat changes or limited resources, a management decision will be made by EPA New England and the Corps' New England District who share the responsibilities of managing and monitoring the disposal sites. Once the proposed sites are designated, monitoring shall be completed in accordance with the then-current SMMPs. It is expected that revisions to the SMMPs may be made periodically; revisions will be circulated for review, coordinated with the affected states and become final when approved by EPA New England Region in conjunction with the Corps' New England District. See 33 U.S.C. 1413 (c)(3).

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)). The interactions of bathymetry, wind-generated waves, and river and ocean currents are complex. Tidal currents are the dominant source of water movement in LIS. Tidal currents generally run east-west parallel to the axis of the Sound and are substantially stronger in the eastern portion of the sound. At the CLIS site, average peak ebb and peak flood currents run 20 to 30 centimeters/second (depth-averaged), with the spring tides 20 to 40 percent stronger. The dominant flow direction is east-west. Also observed is a net west-southwestward flow of approximately 2.5 centimeters/second. The wind fetch at both sites is limited by the semi-enclosed nature of LIS and wave height was recorded in the spring of 2001 at 5 feet. However, wave heights can be developed at the site by winds from storms. A northeast storm with a return period of 2 years will generate waves of 8 feet. Storms with a return period of 10 years will generate waves of 10 feet. At the WLIS site, average peak ebb and peak flood currents run 20 to 30 centimeters/second (depth-averaged), with the spring tides 20 to 30 percent stronger. Based on studies conducted historically, flows directed to the west-southwest run from 30 to 45 centimeters/second 5 percent of the time. The wind fetch is limited at this site, however wave height was recorded in the spring of 2001 at 6.5 feet. A northeast storm with a return period of 2 years will generate waves of 9 feet. Storms with a return period of 10 years will generate waves of 11 feet.

It is expected that peak wave induced bottom orbital velocities are not sufficient to cause significant erosion of dredged material at either of the proposed sites. For these reasons, EPA has determined that the dispersal, transport and mixing characteristics, and current velocities and directions at the CLIS and WLIS sites are appropriate for designation as a dredged material disposal sites.

7. Existence and Effects of Current and Previous Discharges and Dumping in the Area (including Cumulative Effects) (40 CFR 228.6(a)(7)). The CLIS and WLIS disposal sites are currently being used for disposal activity pursuant to the Corps' short-term site selection authority under section 103(b) of the MPRSA. 33 U.S.C. 1413(b). These sites have also been used historically under prior legal regimes. These past disposal operations at these sites have been managed and material disposal has been monitored. Past use of these sites generally makes them preferable to more pristine sites that have either not been