environmental cleanup and habitat restoration programs. The lack of predictable and cost-effective disposal options for contaminated sediments leads to cancellation or delay of waterfront development projects, resulting in adverse economic effects.

Based on preliminary investigations of 20 percent of Puget Sound, Ecology estimates that the areal extent of known sediment contamination is nearly 88 million square feet. Assuming all of the material is dredged to a depth of four feet, this area represents roughly 20-30 million cubic yards of contaminated dredged material. Over the next 20 years, an estimated 35 million cubic yards will be dredged for navigation purposes by the Corps and Navy, port districts and the private sector, of which as much as 10 million cubic yards may require confined disposal. In addition to navigation dredging projects, a large volume of contaminated sediment may be generated by future cleanup actions under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and state Model Toxics Control Act (MTCA). A preliminary estimate of future contaminated sediment volumes from these cleanup actions in Puget Sound is in the range of 20 to 30 million cubic yards.

2. Alternatives

The alternatives which will be evaluated in the EIS are:

a. No action;

b. Level bottom capping and confined aquatic disposal;

c. Nearshore confined disposal;

d. Upland disposal;

e. Disposal in solid waste landfills; and

f. Multiuser access to larger fill projects.

These are preliminary alternatives; during the scoping process, the public may provide additional alternatives to be considered.

No action—This alternative would continue the practice of resolving contaminated dredged material issues on a project-by-project basis. This practice is time-consuming, unpredictable, and expensive for the regulated community, the regulatory agencies, and the public. It also results in a greater number of smaller confined disposal sites that must be monitored and accounted for rather than a few large sites. Because of difficulties with disposal, the discovery of contaminated sediments will often force project proponents to redesign or abandon a project to avoid dredging. This avoidance does not resolve the ongoing adverse effects of the contaminated

sediments on the environment, and it limits the potential economic development of the contaminated waterfront site.

Level bottom capping and confined aquatic disposal—Both of these disposal options involve consolidating contaminated sediments from numerous dredging projects at one location and then covering them with a cap layer of clean material. The clean cap layer isolates the marine environment from the chemicals of concern in the contaminated sediment. Level bottom capping is the placement of contaminated sediment in a mounded configuration with the clean cap layer on top. Confined aquatic disposal uses natural or excavated depressions for placement of the contaminated material. or places the material behind constructed submerged dikes for containment. In both cases, the contaminated material is covered with a clean cap layer.

Nearshre confined disposal—A nearshore confined disposal facility is a diked disposal site adjacent to land in the intertidal and/or subtidal zone. The confinement dikes enclose the disposal site from adjacent water surfaces and isolate dredged material from adjacent waters during placement. Contaminated material would be added to a diked cell to a specific elevation and then capped with clean material. The site would likely be developed in phases, and cells would be filled and capped in stages over the life of the facility. Nearshore sites are either finished to grade to allow beneficial use of the site after completion, or the finished grade of the clean cap layer is located in the intertidal zone to allow planting of aquatic vegetation and habitat restoration.

Upland disposal—This alternative includes the placement of contaminated material in an area not influenced by tidal waters. The upland site would be diked to confine the dredged material and capped with a layer of clean material at completion of the fill. The site would be developed in stages and would be filled and closed serially over the life of the facility. Design standards for an upland site would include liners, monitoring of leachate seeping into soils, groundwater monitoring, and a leachate collection and treatment system.

Disposal in solid waste landfills-Potential disposal of contaminated sediments in solid waste landfills would be evaluated under this alternative. Municipal landfills are short on capacity and subject to water content restrictions. Demolition debris landfills have been used in the past for disposal

of contaminated sediments, but this practice is ending as these sites are closed or subject to additional environmental controls. An initial State survey of landfill agencies concluded that use of contaminated material as landfill cover would not address the needed capacity, and the facilities were not planned to accommodate the volume or substantial regulatory, technical, or cost issues associated with managing contaminated sediments.

Multiuser access to larger fill projects—This alternative examines the option of providing multiuser access to large fill sites constructed and/or maintained by proponents of waterfront activities. Proponents of larger fill projects have been reluctant to provide multiuser access to their sites because of lost capacity for their own projects, extended timeframes for site development and closure, and inherited liability.

3. Scoping and Public Involvement

Public involvement will be sought during the scoping process and throughout the course of the project in accordance with NEPA/SEPA procedures. A public involvement plan will be developed in early 1996. As part of the scoping process, all affected Federal, state, and local agencies, Indian Tribes, general public, and other interested private organizations, including environmental interest groups, are invited to comment on the scope of the EIS.

To date, the following areas have been identified for analysis in the

- programmatic EIS: Water quality.
 - 2. Sediment quality.
 - 3. Fish and wildlife habitat.
 - 4. Shoreline and land use.
 - 5. Recreation.

 - 6. Transportation. 7. Human Health.

Two scoping meetings are scheduled: December 13, 1995, at the World Trade Center in Tacoma from 7 to 9 p.m.; and December 14, 1995, at the Port of Everett Commissioner Hearing Room 7 to 9 p.m. Public workshops are tentatively scheduled to precede these scoping meetings from 6 to 7 p.m. Ongoing communication with agencies, Native American tribes, public interest groups, and interested citizens will take place throughout the project through the use of public workshops, newsletters, and mailings.

4. Schedule

The scoping summary document is scheduled to be available in June 1996, and the Draft Programmatic **Environmental Impact Statement is**