Concept Document
(Abridged Version)

Elliott Bay/Duwamish Restoration Program

Prepared for the
Elliott Bay/Duwamish Restoration Program Panel
by the
King County Department of Metropolitan Services
Panel Publication 7

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The Panel, its technical working groups and its committees hold regularly scheduled meetings that are open to the public. Meetings are generally held at the National Oceanic and Atmospheric Administration, Northwest Fisheries Science Center auditorium, 2725 Montlake Boulevard East, Seattle. Because meetings are sometimes rescheduled and locations changed, the Panel recommends that you contact Robert C. Clark Jr., Administrative Director, at (206) 526-4338 to confirm the meeting schedule. The Panel also schedules periodic special meetings, such as public information meetings and workshops.

Regularly scheduled meeting dates

Panel: First Thursday of every month, 9:30 a.m.-12:30 p.m.

Sediment Remediation Technical Working Group: Second and last Thursday of every month, 1-4 p.m.

Habitat Development Technical Working Group: Second and last Thursday of every month, 9 a.m.-noon

Public Participation Committee: Second Monday of every month, 1:30-4 p.m.

Environmental Review of Specific Projects

Formal hearings and comment periods on appropriate environmental documents for each proposed sediment remediation and habitat development project will be observed. Please contact the Administrative Director for more information.

This information is available on request in accessible formats for persons with disabilities by calling (206) 684-2046 (voice) or (206) 689-3413 (TTY).

Executive Summary

This *Concept Document* describes the process developed for the Elliott Bay/Duwamish Restoration Program (Program) by a Panel (Panel) of participating governments responsible for implementing the requirements of a 1991 consent decree. The consent decree settled a 1990 lawsuit filed by the United States of America on behalf of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) against the City of Seattle and the Municipality of Metropolitan Seattle (Metro), now the King County Department of Metropolitan Services.[1]

The process described in this document has been used to identify and evaluate potential sites for sediment remediation and habitat development projects. Pollution source control is also discussed. The Panel's process for environmental review and public participation is described as well. A *Draft Concept Document* was released for public comment and review in August 1993 and discussed at a special evening meeting in late September 1993. Subsequently, the Panel reviewed suggestions and comments. The Panel finalized the document by revising the Executive Summary and the Introduction and Overview slightly and by adding Chapter 6. Chapter 6 serves as a summary of material presented in the *Draft Concept Document*, provides updated information on project selection (including discussion of two additional habitat development projects), and responds to public comment. Comments recorded on the flip chart at the September 1993 evening meeting are included in Appendix B.

Over the past century and a half, urban development and associated activities have dramatically changed the character of the Elliott Bay and Duwamish River shorelines. The changes have included water and sediment pollution and physical habitat destruction and modification.

Scientific studies have documented the distribution and effects of the pollution. Some pollutants have settled to the bottom and accumulated in sediment, primarily near sewer outfalls, other waste discharge points and areas of heavy industrial activity. Pollutants detected in these areas include polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and a variety of other synthetic organic compounds and metals. The concentrations of these substances vary widely from place to place. The extent to which certain marine organisms have been directly affected by pollutants in Elliott Bay is still being studied. However, it is generally understood that the accumulation of pollutants in the sediment in these areas has impaired the habitat value for some life forms. In cases where bottom-feeding fish or shellfish accumulate certain pollutants in their bodies, there may also be some level of risk to people who consume these organisms.

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[1]In 1994, the Municipality of Metropolitan Seattle became the King County Department of Metropolitan Services (Metro) in the new Metropolitan King County government.

The physical destruction and modification of shoreline habitat have included the straightening of the Duwamish River channel, the building of steep bulkheads and riprap, the filling of marshes and tide flats, and the dredging of adjacent intertidal areas. Combined with water and sediment pollution and the reduction of freshwater flow, these activities have dramatically reduced the quantity and quality of nearshore habitat in the Duwamish River estuary.

The Elliott Bay/Duwamish Restoration Program is a cooperative, intergovernmental program established to help restore and replace natural resources injured by pollution in Elliott Bay and the lower Duwamish River. In the lawsuit against the City of Seattle and Metro, NOAA alleged that the City and Metro had caused some of this injury by releasing hazardous substances from their sewerage systems into the bay and river. Rather than expend substantial time and resources on legal proceedings, the parties to the lawsuit agreed to cooperate in the formation of the Elliott Bay/Duwamish Restoration Program. This agreement was embodied in a consent decree. An important provision of the consent decree is that this program is not intended to remedy all the injuries to natural resources in Elliott Bay and the lower Duwamish River. Rather, it is intended to maximize benefits to the area's natural resources. This program includes coordinating ongoing City and Metro programs with efforts to maintain habitat development projects established under the consent decree.

The consent decree parties, which are now jointly conducting the Program as a Panel, are NOAA, the U.S. Department of the Interior's Fish and Wildlife Service (USFWS), the Muckleshoot Indian Tribe, the Suquamish Tribe, the Washington State Department of Ecology (Ecology), the City of Seattle and Metro. Under the consent decree, the City and Metro are providing a combined maximum of $24 million for sediment remediation, habitat development and pollution source-control projects between 1992 and 1997. Of the $24 million allocated, $12 million is set aside for sediment cleanup, $5 million for habitat restoration, up to $5 million in real estate for habitat sites restored by the Program and up to $2 million for helping control the sources of pollution that could recontaminate project sites.

Since the consent decree was signed in 1991, the Panel and two technical working groups — one for sediment remediation and one for habitat development — have been working to identify and prioritize potential sediment cleanup and habitat development projects. With comments from the public, they established an initial list of possible projects, developed criteria reflecting the requirements of the consent decree and ranked the projects based on these criteria. This *Concept Document* presents the criteria, the ranking methods, the results of the ranking calculations, and the list and description of projects in the resulting order of priority.

The Panel has initiated preliminary site-specific work at combined sewer overflows and storm drains located within the Duwamish Waterway and has undertaken a pilot project and central waterfront recontamination study. The Panel has identified potential habitat restoration projects benefiting trust resources in three geographic focus areas: Turning Basin Number 3, the vicinity of Kellogg Island and the Elliott Bay shoreline (see Figure 7). The Panel expects to select and initiate preliminary site-specific investigation for the

few projects that can be implemented with the time and budget available and will begin planning and implementing those projects. Planning and implementation will involve a variety of activities, including additional site characterization, detailed environmental reviews and audits, real estate negotiations, project design, permit application and project management. The Panel will oversee project design and implementation and establish followup monitoring programs to assess project success.

To protect natural resources and prevent recontamination of sites selected for sediment remediation and habitat development projects, the Panel will establish source control goals. To achieve these goals, the City of Seattle and Metro will determine what actions or changes, if any, are needed in connection with their ongoing source control programs. If they decide actions or changes are needed and are also achievable, they will propose those actions or changes to the Panel. Upon Panel approval, the actions or changes will be undertaken.

Environmental review of Panel projects will be conducted under the National Environmental Policy Act (NEPA) and State (of Washington) Environmental Policy Act (SEPA). To maximize efficiency, the two reviews will probably be conducted jointly for each project. Under this approach, a NEPA environmental assessment (EA) will be prepared and then adopted to satisfy SEPA environmental review requirements. The public will have a period of at least 30 days to comment on environmental review documents.

The Panel will continue to work with the public throughout the life of the Program, keeping the public informed of Program activities and soliciting public comments and suggestions to help guide Panel decisions. Specific information on opportunities for continuous public involvement is provided at the front of this document behind the title page.

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1. Introduction and Overview

This *Concept Document* describes the process developed for the Elliott Bay/Duwamish Restoration Program (Program) by a Panel (Panel) of participating governments responsible for implementing the requirements of a 1991 consent decree. The consent decree settled a 1990 lawsuit filed by the United States of America on behalf of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) against the City of Seattle and the Municipality of Metropolitan Seattle (Metro), now the King County Department of Metropolitan Services.[1]

The process described in this *Concept Document* has been used to identify and evaluate potential sites for sediment remediation and habitat development projects. Pollution source control is also discussed. The Panel's process for environmental review and public participation is described as well. This *Concept Document* presents the context within which actions will be taken by the Elliott Bay/Duwamish Restoration Program to improve the natural resources of Elliott Bay and the lower Duwamish River.

What this document covers

- Background information on the Elliott Bay/Duwamish Restoration Program, establishment of the Program through a consent decree, accomplishments of the Program to date, opportunities for public participation in the Program, and the environmental assessment process (Chapter 1).
- The geographic scope of actions to be undertaken by the Program and the general environmental condition of Elliott Bay and the lower Duwamish River (Chapter 2).
- Existing sediment remediation, habitat development and pollution source-control programs that may affect Panel-sponsored projects in Elliott Bay and the lower Duwamish River (Chapters 3-5).
- Evaluation and ranking of potential sites for sediment remediation and habitat development (Chapters 3-4).

[1] In 1994, the Municipality of Metropolitan Seattle became the King County Department of Metropolitan Services (Metro) in the new Metropolitan King County government.

- The scope of environmental assessments that will be undertaken on a site-by-site basis to evaluate the environmental impacts of alternative actions at each site selected by the Program for sediment remediation and habitat development (Chapters 3-5).
- Summary of the Panel's approach to habitat development, sediment remediation and source control; preliminary project identification; future activities; and opportunities for continuous public involvement (Chapter 6).

Program foundation

Factors leading to the consent decree

Under its authority as a natural resource trustee provided by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), NOAA filed a lawsuit against the City of Seattle and Metro on March 19, 1990, to recover damages "for injury to, destruction of, and loss of natural resources resulting from releases of hazardous substances . . . into the environment in and around the Duwamish River and Elliott Bay, for the costs of restoring, replacing or acquiring the equivalent of the affected natural resources, and for the costs of assessing the damage to the affected natural resources" (Consent Decree, 1991). The City and Metro maintained that effluent discharged from their combined sewer overflows (CSOs) and storm drain outfalls had presented little, if any, potential for injury to the natural resources in Elliott Bay and the Duwamish River (Consent Decree, 1991). Rather than go through a costly and time-consuming legal process, the parties to the lawsuit worked out a settlement agreement to carry out a program that would help restore and replace the natural resources of Elliott Bay and the lower Duwamish River. These natural resources include fish and wildlife and the fisheries resources associated with coastal and offshore waters of the United States. The settlement agreement was embodied in a consent decree. (Further details are available in Appendix A.)

Consent decree goals and requirements

The primary goal of the Program established by the consent decree is to remediate contaminated sediment and restore natural habitat associated with combined sewer overflows and storm drains in Elliott Bay and the lower Duwamish River. Combined sewer overflows are sewerage system overflows caused by the introduction of large volumes of stormwater runoff into the system during heavy rain. The consent decree established the Elliott Bay/Duwamish Restoration Program to meet this primary goal of remediation and restoration through sediment cleanup, aquatic and shoreline habitat development, and pollution source-control projects. Figure 1 shows the Program's components and the funding for each.

One of the consent decree's most important provisions is the statement that the Program by itself cannot and is not intended to restore or replace all natural resources injured by pollution in Elliott Bay and the lower Duwamish River. Instead, the Program is intended to coordinate with other federal, tribal, state and local government programs that are working toward the same goal. These programs are listed in Chapters 3-5. The Panel anticipates a combination of projects that will maximize the resources made available by the consent decree and integrate the projects with other existing and planned enhancement projects.

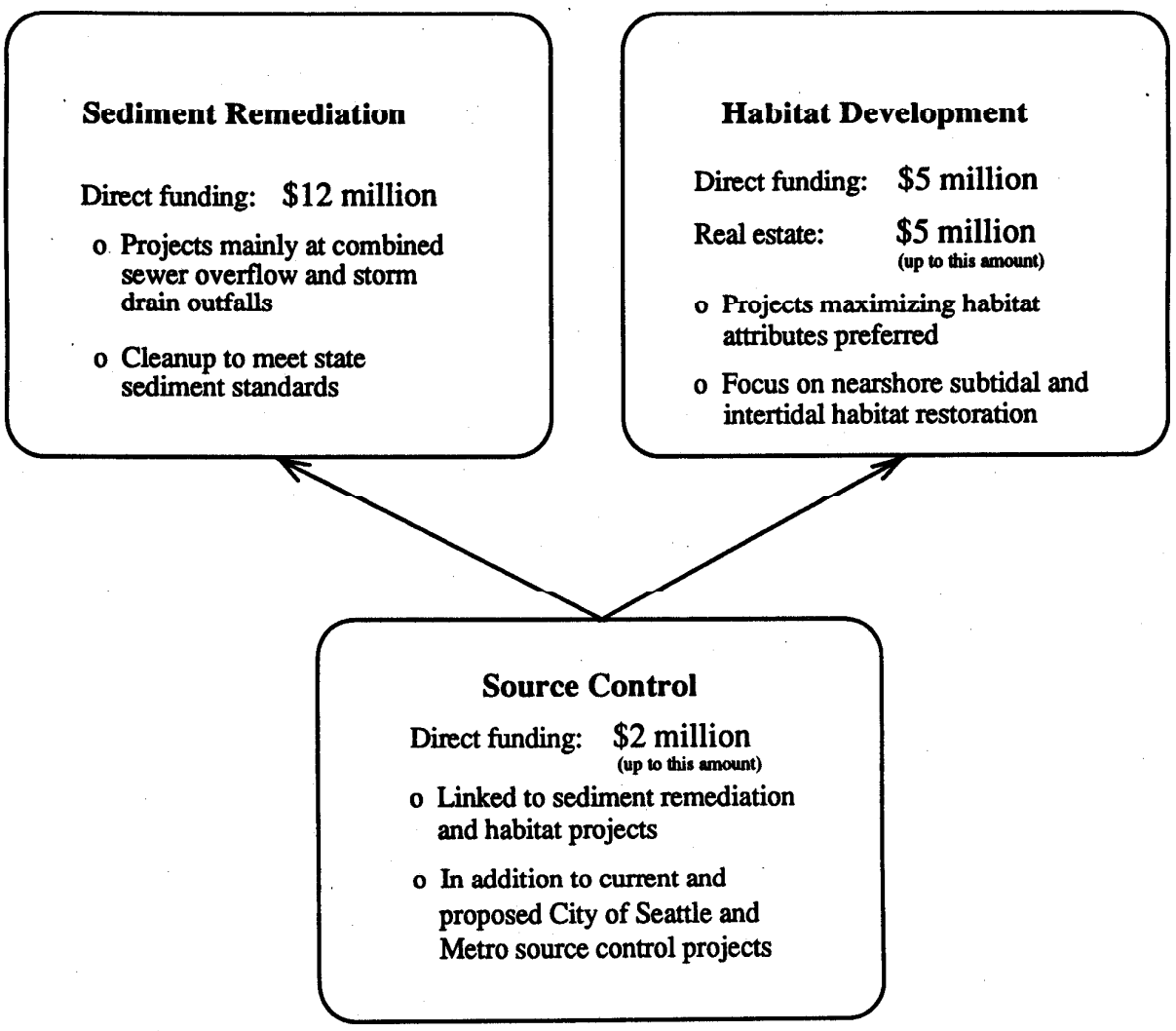


Figure 1

Elliott Bay/Duwamish Restoration Program Components

Participating governments

The governments participating in the Program — the parties to the consent decree — and their roles are listed below. These governments are working closely together and with other concerned governments, agencies and the public to carry out the Program.

United States of America. The federal government is represented by NOAA and the U.S. Department of the Interior's Fish and Wildlife Service (USFWS). These agencies serve as natural resource trustees, protecting national interests of the public in fish, wildlife and other natural resources.

State of Washington. The State of Washington is represented by the Department of Ecology (Ecology), which also coordinates involvement by the state Department of Fish and Wildlife and Department of Natural Resources. Ecology serves as a natural resource trustee for the state's natural resources in Elliott Bay and the lower Duwamish River.

Muckleshoot Indian Tribe and Suquamish Tribe. The Muckleshoot Indian Tribe and Suquamish Tribe are also natural resource trustees. They protect tribal interests in the natural resources of Elliott Bay and the lower Duwamish River in connection with treaty rights delineating usual and accustomed fishing areas.

City of Seattle and the King County Department of Metropolitan Services (Metro). The City of Seattle and Metro are responsible for funding the Program and contributing real estate and in-kind services to help carry out the Program.

Overview of Program process

The consent decree provides a structure and process for carrying out the Program. These elements are shown in Figure 2 and described briefly below. A detailed discussion is provided in Appendix A.

The consent decree established an intergovernmental Panel of Managers to direct the Program. Representatives of NOAA, USFWS, Ecology, the Muckleshoot Indian Tribe, the Suquamish Tribe, the City of Seattle and Metro comprise the Panel.

The Panel has set up two technical working groups to identify and implement projects: the Sediment Remediation Technical Working Group and Habitat Development Technical Working Group. Each working group includes representatives of the governments on the Panel, other governments and agencies, and interested parties. The groups are responsible for identifying potential projects, evaluating them against criteria that meet the goals of the consent decree and determining their feasibility. After the

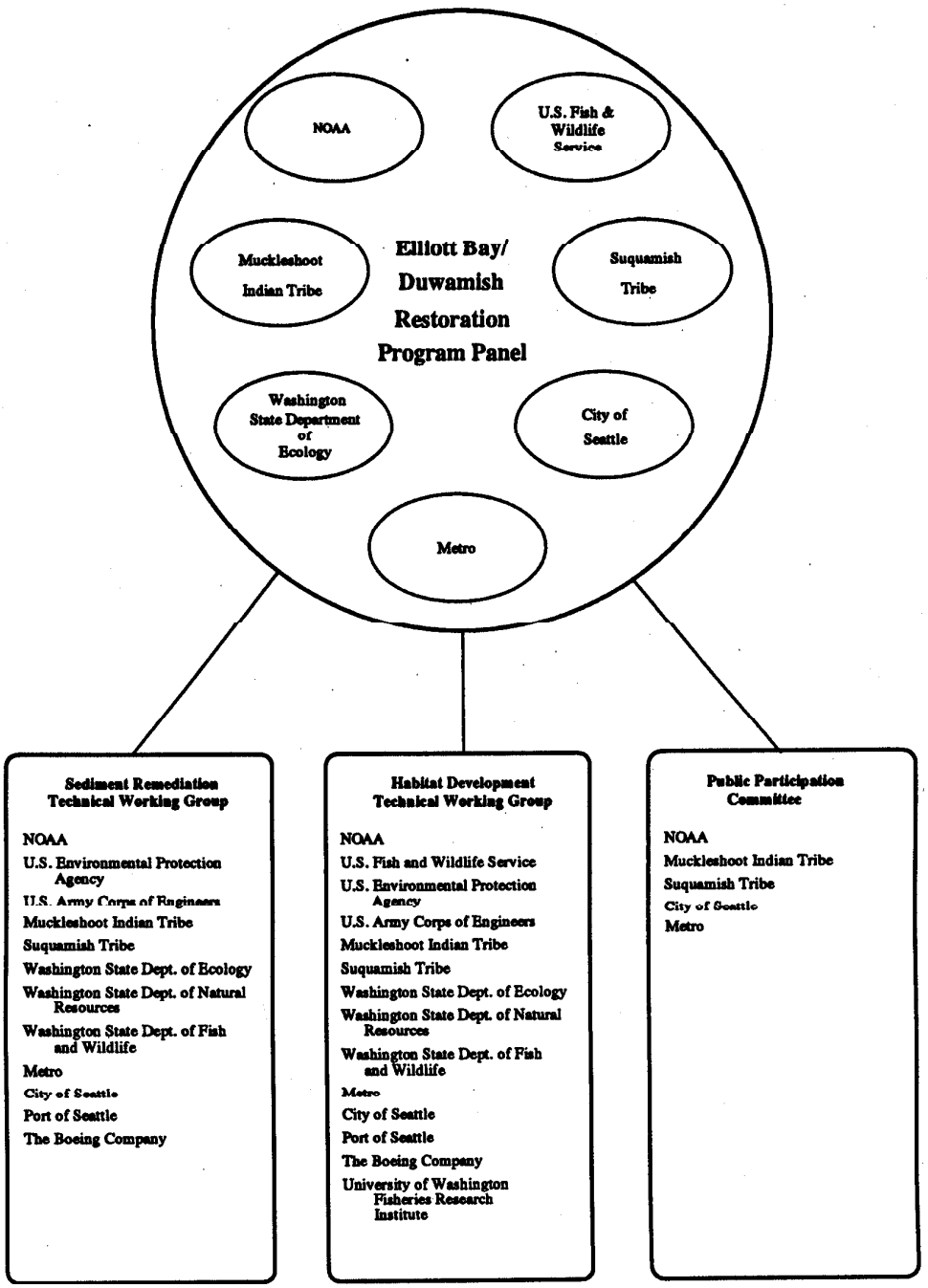


Figure 2

Elliott Bay/Duwamish Restoration Program Structure

Panel selects projects, the working groups oversee their implementation. The groups are also responsible for advising the Panel on proposed source control projects related to project sites.

The Panel will establish source control goals to protect natural resources and prevent the recontamination of project sites. The City and Metro will determine whether additional source control is needed beyond their ongoing programs to meet the source control goals. If additional source control is needed, the City and Metro will propose actions to the Panel and implement the actions approved by the Panel.

The Panel has established a Public Participation Committee to advise the Panel on public participation activities and distribute timely, accurate and complete information about the Program to the public. Representatives of governments on the Panel comprise the committee.

Program description

The geographic area covered by the Program is Elliott Bay (specifically, east of a line between Alki Point and West Point) and the lower Duwamish River from the Turning Basin at the head of navigation located at about river mile 6, or approximately South 102nd Street. Solely for purposes of habitat development, the Program may also cover tributaries to the Duwamish River. The Program area is shown in Figure 3. The consent decree's complete description of the Program area is provided in the glossary.

Summary of Program alternatives and components

This section gives brief introductory descriptions of the Program's components. Detailed discussions are provided in Chapters 3-5. The consent decree's complete definition of these components is provided in the glossary.

Sediment Remediation. The Panel anticipates undertaking four to five sediment remediation projects. These projects will each use one or more methods to remove or isolate contaminated sediment in the project area. Examples of methods that could be used include dredging and disposal, dredging with sediment treatment and replacement, and capping (covering contaminated sediment with a layer of clean sediment).

Habitat Development. The Program anticipates undertaking three to five habitat development projects. These projects will each use one or more methods to restore and/or replace estuarine habitat. Examples of methods that could be used include fill removal, regrading and excavation; stream daylighting; revegetation; substrate modification; water depth changes; and contaminant removal.

Source Control. The consent decree requires that the Panel approve source control efforts where necessary to protect natural resources and prevent recontamination of

project sites. Examples of source control methods include reducing, rescheduling or eliminating combined sewer overflows; investigating and controlling potential point sources of pollution; implementing best management practices; and educating people about nonpoint pollution in the watershed.

Schedule

Some projects will be designed and completed by the end of the funding period in 1997. Some project completion and monitoring will likely extend beyond that time. One sediment remediation project, called the Pier 53-55 Sediment Remediation Pilot Project, was implemented in 1992.

The public's role

The Panel encourages comments on the environmental issues and other issues that may be associated with the Program. Public participation is an essential part of the environmental review process and the Program's activities — in fact, it is required by the consent decree and federal and state law. The participating governments and agencies are committed to meeting these requirements. The public's comments on the environmental issues associated with the Program have been sought early and will continue to be sought throughout the Program. Comments recorded at public meetings and workshops held so far are included in Appendix B. These comments and future comments will help the environmental review focus on the most important environmental issues. The Panel will consider all comments. Opportunities for continuous public involvement are provided at the front of this document behind the title page.

As the Program moves ahead, there will be other opportunities for public participation. Individuals and organizations on the Panel's mailing list will periodically receive information about the Program's progress. Information will include notices about upcoming meetings, workshops and other opportunities to learn about and comment on the Program. Some of these opportunities will be information meetings on environmental review documents and permits for individual sediment remediation and habitat development projects. A list of potentially applicable permits is provided in an Ecology publication, *Commonly Required Environmental Permits for Washington State*, September 1990.

Environmental review

The National Environmental Policy Act (NEPA) requires federal agencies to evaluate the potential environmental impacts of many projects under their jurisdiction. The State (of Washington) Environmental Policy Act (SEPA) requires state and local agencies to carry out similar evaluations. Because Elliott Bay/Duwamish Restoration Program projects will fall under both federal and state jurisdiction, the environmental evaluation

requirements of both NEPA and SEPA will have to be met. To minimize duplication, SEPA allows state and local agencies to adopt the NEPA environmental review of a project as the process for meeting SEPA requirements. The Panel will use this approach for Elliott Bay/Duwamish Restoration Program projects.

A NEPA environmental assessment (EA) will be prepared for each selected project to evaluate its potential environmental impacts. When each EA is completed, it will be made available for public comment for at least 30 days. Because an EA may be adopted to meet SEPA requirements at the same time, this one comment period may be used to meet the requirements of both laws. If an EA is adopted for SEPA at a later time, an additional comment period might be provided.

To minimize redundancy, the Panel will use a tiering approach to prepare the EAs. Under a tiering approach, the first EA prepared for a class of projects will include a full discussion of potential impacts, including issues raised in this *Concept Document.* EAs for subsequent projects in that class will not repeat the full discussion. Instead, they will summarize and refer to the first EA, focusing on additional issues or different impacts associated with the new projects. The EA for an individual project may indicate that a full environmental impact statement (EIS) should be prepared for that project. In that case, if the Panel decides to proceed with the project, an EIS will be developed in a manner that satisfies both NEPA and SEPA.

6. Conclusions

The *Draft Concept Document* released in August 1993 provided background on the Elliott Bay/Duwamish Restoration Program and described the process developed by the Panel in implementing sediment remediation, habitat development and source control programs. The geographic scope of actions to be undertaken was provided, and the general environmental condition of Elliott Bay and the lower Duwamish River was discussed. Also presented were criteria, evaluation and ranking of potential sediment remediation and habitat development projects.

As indicated in the Executive Summary, this chapter serves primarily as an update of decisions made subsequent to and as a result of public comment and review. Responses to many of the public comments on the *Draft Concept Document* have been integrated into the following discussions. In addition, summary information is provided on where the Panel will go from here. Included are discussions of some of the site-specific steps that will be taken on projects and opportunities for continuous public involvement.

Sediment remediation

A total of seven primary criteria were developed to assist in the prioritization of the 24 combined sewer overflow and storm drain sites evaluated for cleanup. Criteria developed and evaluated for each site included the relative amount of chemical contaminants present, the adequacy of combined sewer overflow/storm drain source control at the site, the relative potential of the cleanup site to benefit fish and wildlife, the site's ability to accomplish additional habitat improvements, the relative risk to human health, the potential for public education, and the opportunities for coordination with other projects. Each of these criteria was assigned a weight to reflect their relative importance. Individual sites were assigned scores according to each weighted criteria. An overall ranking was developed for each site by adding the individually weighted scores.

To complete the selection process, additional factors were also considered on a site-by-site basis. These factors included the potential for recontamination from other sources and the combined sewer overflow/storm drain source control schedule. Also assessed were the potential that other sponsors could perform the cleanup, opportunities for joint-funding by other parties and the availability of disposal sites and/or capping materials.

Based upon the results of the ranking (see Table 1, Chapter 3, page 23), the previously mentioned additional considerations and favorable public response, the Panel approved the development of work plans for characterization of the level and extent of

contamination at the following combined sewer overflows and storm drains located within the Duwamish Waterway and shown on Figure 7:

- Diagonal Way combined sewer overflow and storm drain
- Duwamish Pump Station combined sewer overflow
- Norfolk combined sewer overflow.

In recognition of the importance of the central waterfront area of Elliott Bay, the Panel in 1992 adopted and funded a 4.5-acre Pier 53-55 sediment remediation pilot project. Project construction was completed in 1992, and an ongoing monitoring program to evaluate the effectiveness of the cap and enhanced natural recovery area was also adopted.

The Panel is sponsoring a waterfront recontamination study, which is scheduled for completion by early 1995. Results of the study will help identify the areas with the least likelihood of recontamination from other sources along the waterfront. Pending satisfactory results of this study, the Panel will likely pursue one or more additional projects along the waterfront.

After individual sites are initially selected for implementation, the following activities will be undertaken by the City of Seattle and/or Metro, acting as the project manager for each site:

- characterize existing site conditions
- identify alternative sediment remediation approaches and recommend preferred remedial actions
- establish cleanup goals and project success criteria
- establish an approximate project schedule
- develop a monitoring plan
- conduct an environmental review and obtain permits
- implement the cleanup project
- evaluate project success and use the results to improve future projects.

In addition to these site-specific actions, an investigation will be conducted to determine if additional source control efforts are needed to protect remediated sites. If the investigation indicates that additional source control is warranted, the City of Seattle and/or Metro will develop proposals to implement such controls. Proposals approved by the Panel will then be implemented.

Habitat development

The tasks of evaluating and selecting habitat development projects have been guided by the general goal of benefiting fish and wildlife species and the habitat attributes on which they depend.

Assessment criteria were identified, and a weighting and scoring system, as described in Chapter 4, was applied to each potential project site. High-priority criteria include size, distance from contamination, the extent to which restoration activities would benefit fish and wildlife, and the location of the potential project within the estuarine system. Criteria considered as medium priority were identified as engineering cost/likelihood of success, proximity to public facilities, nature and condition of surrounding land uses, and the proximity of the potential project site to other habitats. Ownership, potential adjacent land use and public access were determined to be of lower priority.

Potential project sites within Elliott Bay and the lower Duwamish River were initially identified through previous work (Tanner, 1991), efforts of working group members and a site nomination process available to members of the public. This identification process resulted in a project inventory and ranking (see Chapter 4). Public interest pursuant to the presentation and evaluation of the project inventory and ranking resulted in the addition of two potential sites. Greater Harbor 2000 nominated Pier One as a site for habitat restoration activities, and the Muckleshoot Indian Tribe asked that Kenco Marine be linked with City Light South and assessed in the inventory. Each of these sites is described below and shown in Figure 8 (an update of Figure 5, Chapter 3, page 27).

Site 31: Pier One. As a result of the development of the Greater Harbor 2000 Framework Plan, Pier One was nominated for consideration by representatives of Greater Harbor 2000. The site is a largely unused industrial parcel in the southwest portion of Elliott Bay. Pier One is in the immediate vicinity of the proposed Port of Seattle southwest harbor redevelopment. The conceptual plan presented for Habitat Development Technical Working Group consideration proposed that the Port of Seattle purchase the property for shoreline public access and the Panel fund cleanup and habitat development at the site.

Additional Site Considerations

- Community support for this site is evidenced by inclusion in the Greater Harbor 2000 Framework Plan.
- Purchase of the site would increase public ownership of the Elliott Bay shoreline by an additional 1,300 linear feet.
- Opportunity for nonintrusive public access and associated educational benefits appear to be very good at Pier One.
- Site is in close proximity to known sources of contamination. Existence of slag material in fill at the site, as well as at other nearby known contaminant sources, limits habitat restoration opportunities.

- Site acquisition and development costs may be greater than existing resources.
- Lack of association of adjacent, suspected subtidal sediment contamination to Metro and City of Seattle combined sewer overflows or storm drains limits consideration for remediation with Elliott Bay/Duwamish Restoration Program funds.

Site 4B: Kenco/City Light South. Following preliminary partial approval of a proposal to purchase the Kenco Marine site with funds from the Metro Shoreline Improvement Fund (SIF), the Muckleshoot Indian Tribe asked that the site be evaluated in conjunction with adjacent City Light South (Site 4). In the vicinity of Turning Basin Number 3, Kenco is also adjacent to a Coastal America project being completed by the Port of Seattle. Restoration activities that were considered include structure removal, fill removal and minor regrading, and revegetation in intertidal and riparian zones. The opportunity of combining Kenco with City Light South increases the potential benefits of restoration activities.

Additional Site Considerations

- The Muckleshoot Indian Tribe is currently working on developing information necessary for site acquisition. Purchase would need to be confirmed before final site selection.
- Potential may exist for coordination with the nearby Rainier Vista Shoreline Improvement Fund project.
- This portion of the Duwamish River, in the vicinity of the Turning Basin, is believed to be important to juvenile salmonid saltwater transition.
- The Turning Basin is at the upper end of the Duwamish Waterway and is, therefore, subjected to reduced vessel wake and associated erosion problems.
- King County Surface Water Management is working on addressing problems in the drainage basin with the South 96th Street storm drain. This work will reduce nonpoint source pollution in the area and may afford opportunities for collaborative habitat work.
- This site has significant potential for the development of public access, education and interpretive facilities. The site could also be tied to the adjacent Duwamish bicycle trail.
- Current and/or potential habitat work in the vicinity of the Turning Basin would likely increase the value of habitat work completed at this site.

As shown in Table 5 (an update of Table 3, Chapter 4, page 53), Pier One, identified as Site 31, achieved a medium ranking. The Kenco/City Light South potential project, identified as 4B, received a score that placed it within the high-priority grouping.

Based on public input and further evaluation after the presentation of the *Draft Concept Document*, members of the Habitat Development Technical Working Group determined

Table 5: Potential Habitat Development Site Ranking (June 1994)

Site No.	Site Name	Size (acres)	Distance from Contam.	Injury	Habitat Types	Prox. Habitat	Land Use: Exist.	Engr. Cost/ Success	Proximity to Public Facilities	Owner -ship	Publ. Access	Land Use: Potential	TOTAL RANKING SCORE
5	City Light N.	high	med./high	high	medium	high	high	low	medium	high	high	medium	high
22	Myrtle Edwards	medium	medium	high	med./high	medium	high	medium	high	high	high	high	high
4B	Kenco/City Light S.	medium	med./high	high	medium	med./high	medium	medium	medium	high	high	high	high
4	City Light S.	medium	medium	high	medium	medium	medium	high	medium	high	high	high	high
17	T- 105	high	low/med.	med./high	low/med.	high	medium	high	high	medium	high	low/med.	high
26	Seaboard	high	medium	high	medium	high	med./high	medium	medium	low	medium	medium	high
23	Pier 89	medium	med./high	high	med./high	medium	med./high	low	high	low	high	med./high	high
14	Kellogg I.	high	medium	high	low/med.	high	high	low	low	medium	high	high	high
13	T- 107	high	medium	medium	low	high	high	medium	high	medium	high	medium	high
25	W. Seattle Shore	medium	medium	med./high	low/med.	medium	med./high	low	high	high	high	high	high
3	Turning Basin	medium	high	high	medium	med./high	low/med.	medium	low	low	medium	medium	medium
8	Duwamish Park	low	medium	med./high	low/med.	low	med./high	high	high	high	high	med./high	medium
11B	1st Ave. S/509 marsh	high	low	medium	low/med.	high	medium	medium	high	high	medium	low	medium
30	Smith Cove U/W Park	low	medium	high	low	low	medium	high	high	high	high	high	medium
16	T- 103	high	low	med./high	low/med.	med./high	medium	medium	high	medium	low	low	medium
27	Puget Creek	low	medium	low/med.	medium	high	high	medium	low	low	high	medium	medium
11	1st Ave. S	medium	low	med./high	low/med.	low	low	high	high	medium	high	low	medium
31	Pier 1	medium	low	med./high	medium	low	medium	low	high	low	high	medium	medium
18	Spokane St.	low	low	med./high	low	low	low/med.	high	high	high	high	medium	medium
7	Sea King Industrial Pk.	medium	low/med.	med./high	low	medium	low/med.	high	low	low	low	high	medium
10	Slip 4	medium	low	high	medium	low	low	low	medium	low	medium	medium	low
9	S. Riverside	low	low	med./high	low/med.	low	low/med.	medium	medium	high	medium	low/med.	low
19	E. Wtrway	low	low	med./high	low/med.	low	low/med.	low	high	medium	high	low	low
24	Pump Station	low	low	med./high	low/med.	low	medium	low	medium	high	medium	medium	low
28	Riverbend Park	medium	high	low	low	low	medium	low	low	low	high	medium	low
21	Pier 27	medium	low/med.	med./high	low/med.	low	low	medium	low	low	low	low	low
6	Slip 6	medium	low	med./high	low	medium	low/med.	low	low	low	low	medium	low
12	T- 115	low	medium	med./high	low	low	low	low	low	low	medium	medium	low
20	Fisher Mills	low	low	med./high	low	low	low/med.	medium	low	low	low	low	low
29	Longfellow Creek		low	low	low	med. to high	low		high	low	medium		low

that projects benefiting trust resources could be undertaken initially within three geographic focus areas, shown in Figure 7:

- the area of the Turning Basin
- the Kellogg Island vicinity
- the Elliott Bay shoreline.

Projects in each of the geographic focus areas will enable the Panel to maximize habitat restoration goals developed by the working group. It is also anticipated that the projects will benefit from the cultivation of collaborative efforts so that stewardship and long-term success are assured. Through this means, those projects that received a lower ranking in the evaluation process will receive additional consideration in the future.

The rationale for the selection of the three geographic focus areas of interest includes the benefits of applying the landscape ecology approach and responsiveness to public interest. As noted in Chapter 4, the Turning Basin area, located at the head of navigation of the Duwamish River, is also an area of restoration activities sponsored by federal agencies and the Port of Seattle under the Coastal America Partnership. Kellogg Island and the adjacent area provide a mix of habitat types, and members of the public expressed a high degree of support for restoration projects in this area. Projects along the Elliott Bay shoreline were also deemed important to trust resources. Members of the public have urged the Panel to consider projects that could support and maintain productive habitat. In response, the technical working group is reviewing literature and further evaluating opportunities for beneficial restoration activities along the shoreline.

At the time this document was published, the City had begun negotiations to acquire the Seaboard Lumber site near Kellogg Island. Depending on the results of initial site investigation, the Panel will decide whether to undertake a habitat restoration project at this location. As other sites along the Elliott Bay shoreline and in the Turning Basin area are identified, more detailed examinations of site contamination and potential effects of proximate pollutant sources on habitat projects will be undertaken. Site investigations will include detailed analysis of habitat attributes, tidal flow regimes and other factors that have a bearing on successful restoration activities.

For each project selected for implementation, project managers will undertake the following activities:

- characterize existing site conditions
- conduct an environmental audit
- identify alternative habitat development approaches and recommend preferred habitat development action

- establish project success criteria
- establish an approximate project schedule
- develop a monitoring plan
- conduct an environmental review and obtain permits
- implement the project
- monitor project success and use the results to modify future projects.

When habitat development projects are selected, the need for additional source control will also be evaluated. If it is determined that additional source control is necessary, specific source control measures will be proposed by the City of Seattle and/or Metro for Panel approval and implementation.

Source control

Source control efforts may be undertaken by the Panel to protect natural resources and prevent recontamination of sites selected for sediment remediation or habitat development. Hence, source control investigations in this context will be a component of each project. These source control efforts are independent of other source control activities already in effect or planned in the area by the City of Seattle and Metro. In accordance with the consent decree, the Panel will review and comment on source control actions proposed by the City of Seattle and Metro to achieve the Panel's goals, determine if the proposed actions are likely to achieve these goals, and direct the City and/or Metro to implement approved actions.

Opportunities for public involvement

Participating governments and agencies comprising the Panel are committed to a process that invites and seeks continuous public comment and involvement in project investigation and selection.

Public comment received on the *Draft Concept Document* indicates approval of potential project inventories and preliminary selections for sediment remediation and habitat development projects. The Panel has been urged to be attentive to:

- watershed issues
- source control

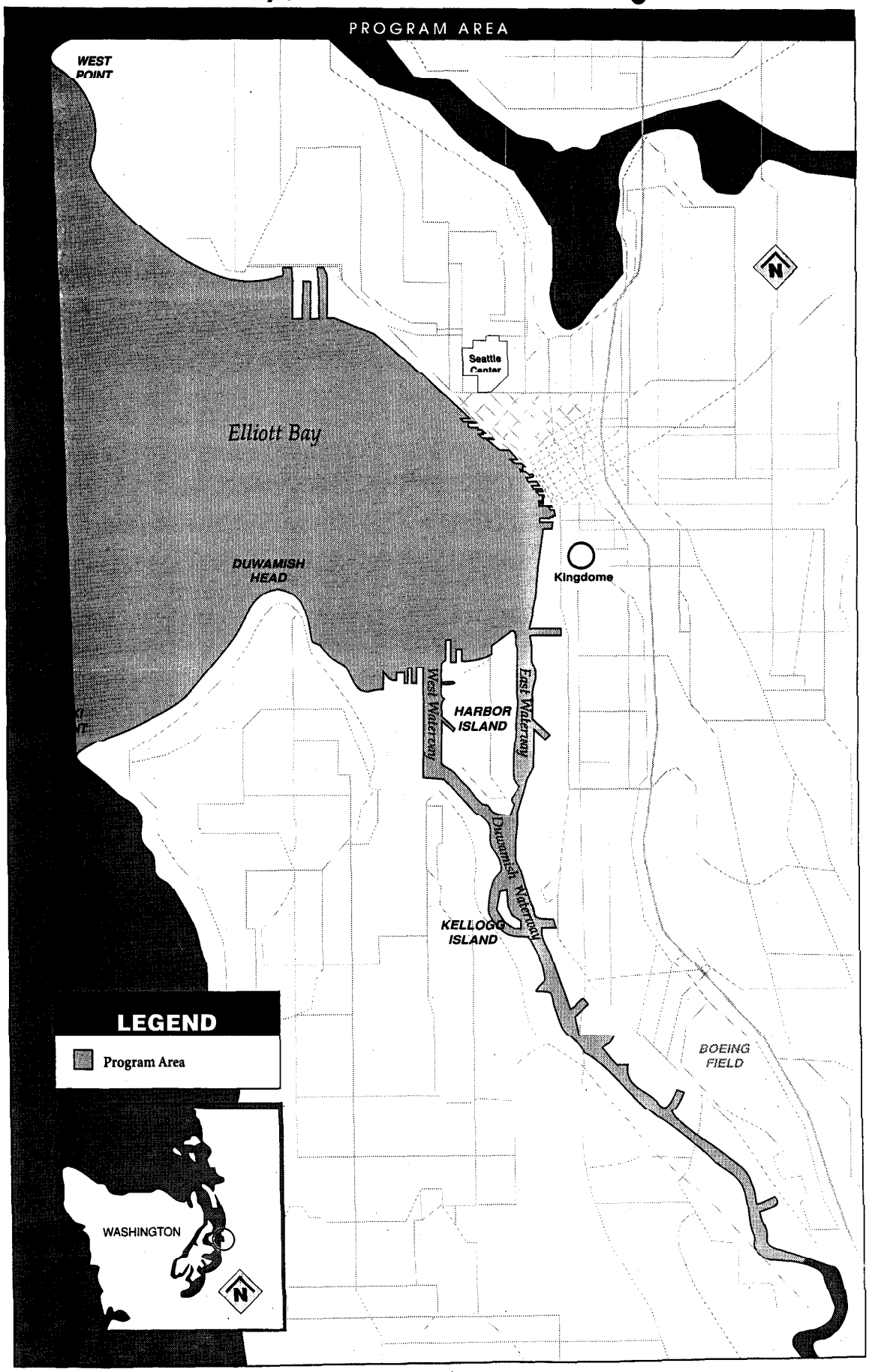
- impact of projects on navigation and fishing
- the relationship of individual sediment remediation and habitat development restoration projects to source control and other program elements
- opportunities for collaborative efforts with other cleanup and restoration project sponsors
- encouragement of public involvement through long-term stewardship opportunities.

The Panel acknowledges that each of these points is critical to overall program success.

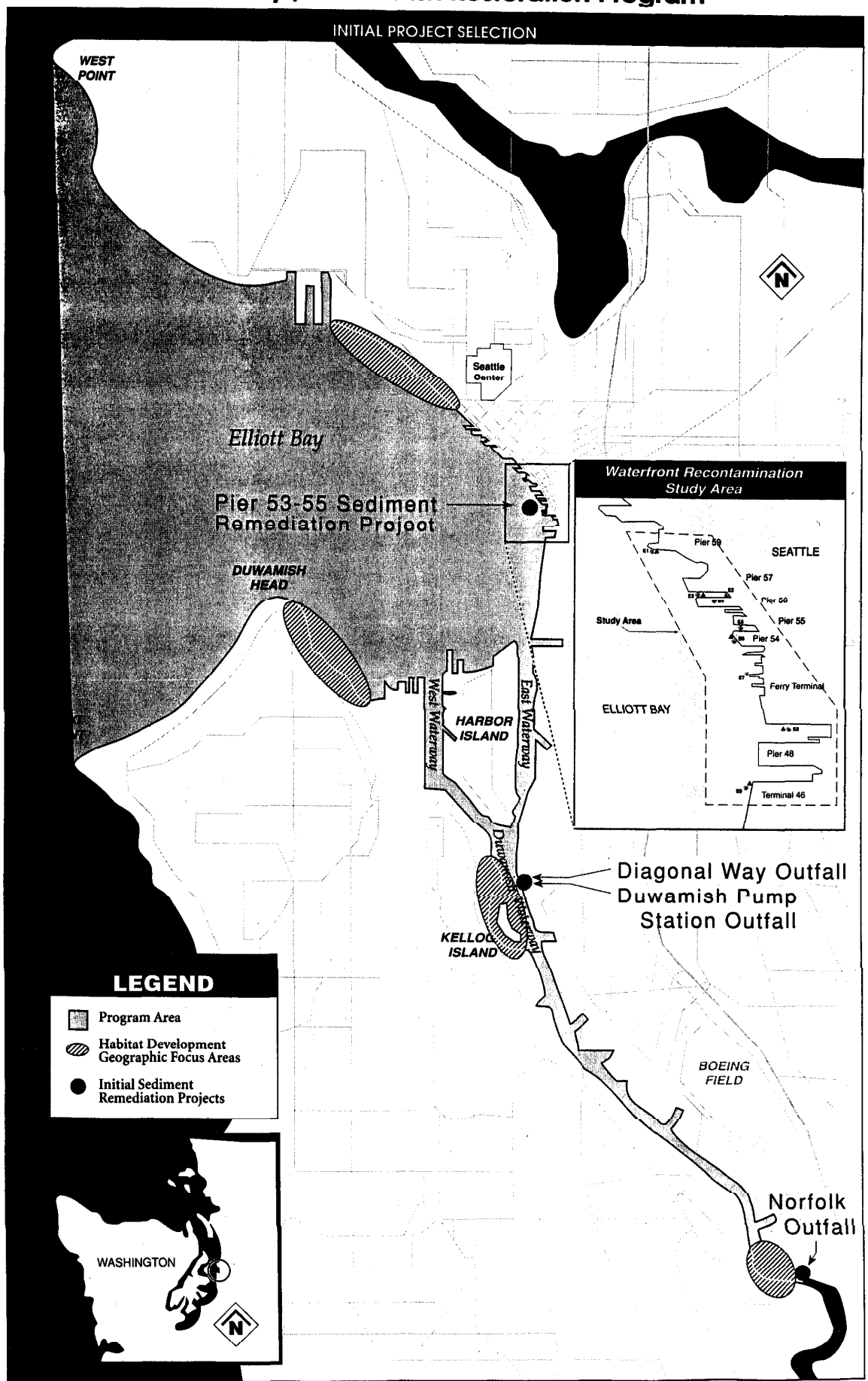
The Panel continues to value and actively seek opportunities for collaboration with other parties and coordination of sediment cleanup projects with habitat development projects to maximize benefits to trust resources. As acknowledged in Chapter 1, the Panel anticipates continued opportunities for coordination with cleanup activities and habitat projects that are being or will be developed through other federal, tribal, state and local government programs within Elliott Bay and the lower Duwamish River. Project success criteria based on the specifics of a project include the identification of opportunities for collaboration and stewardship that will help ensure program success beyond the life of the Panel. Continuous public involvement is important to the success of this program.

Meetings of the Panel, including its working groups and committees, are open to the public. Involvement in these deliberations provides direct access to the public as preliminary decisions are made. In addition, public comment is sought during publicized special meetings and workshops. As the Panel continues with project investigation and implementation, the environmental review and permitting processes will serve as yet other vehicles for public comment and review.

Elliott Bay / Duwamish Restoration Program



Elliott Bay / Duwamish Restoration Program



Elliott Bay / Duwamish Restoration Program

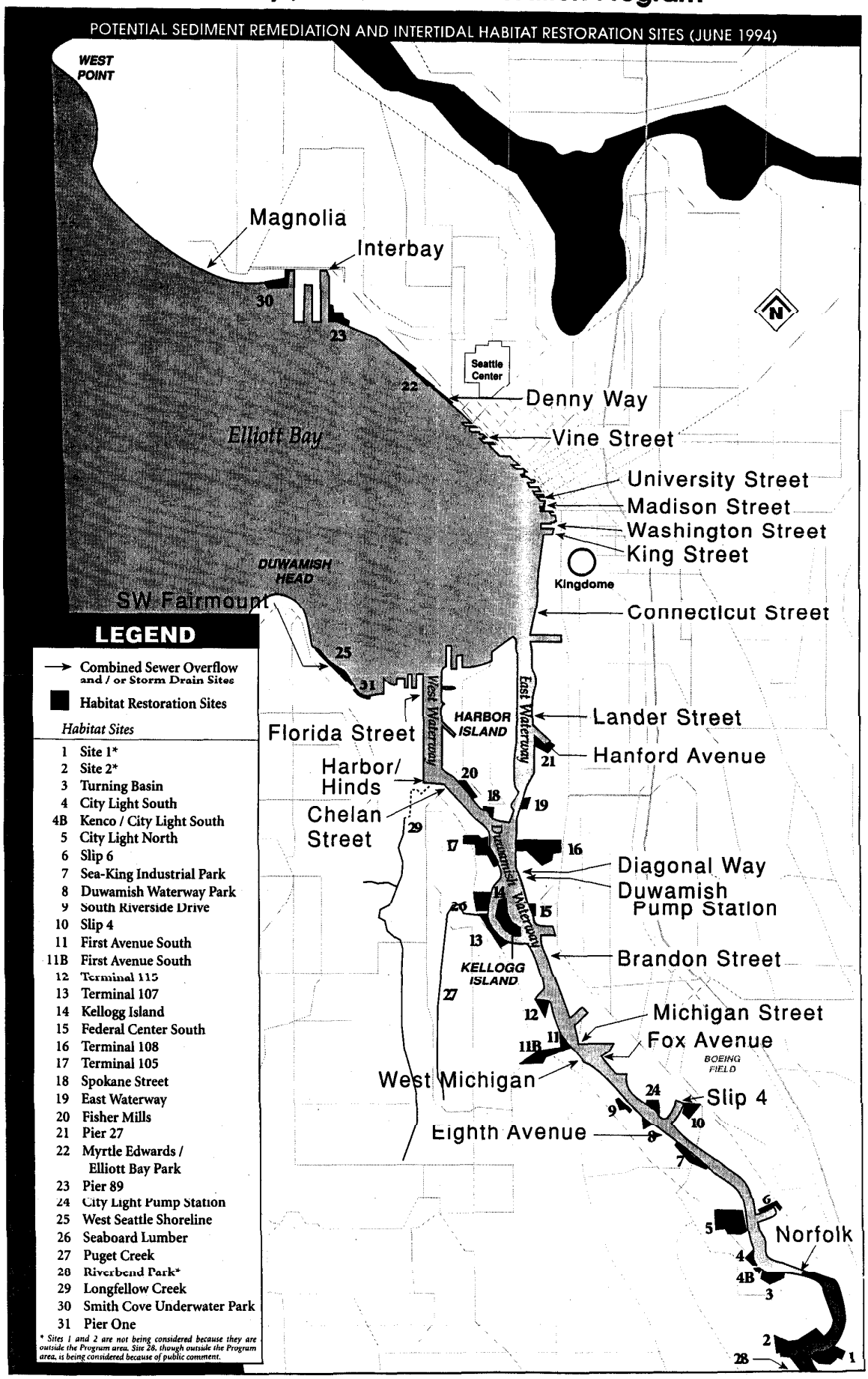


FIGURE A

Public Meeting on
Draft Concept Document

September 29, 1993

Comments Recorded on Flip Chart

- What will be the navigation disturbance in project area? How will projects be affected?
- Surface runoff pollution is going to be a constant problem for projects. Money would be better spent on catch basin filters and other source control to allow nature to clean itself. Spending money on land purchases may end up being a waste of taxpayer's money.
- Efforts of Panel are commendable — urge source control and overall watershed strategy. Would like to see more public participation.
- Were contaminated soils and hydrology considered when selecting sites?
- What were "other" criteria in selecting sediment remediation sites? Could unranked criteria, such as engineering cost and likelihood of success, make or break a sediment remediation project? If we don't know the level of contamination at a potential habitat restoration site, then remediation costs may cause project to fail.
- What are the times, locations and foci of Thursday meetings?
- What is the change in the flow regime of the Duwamish River and what are the implications for restoration projects?
- What data will be collected on the tidal regime prior to developing habitat projects?
- What is the status of Riverbend Park as a potential restoration site?

- What was the rationale for dropping sites 1 and 2 (located south of the Turning Basin) from the original inventory?

- What determined Panel project area boundaries?

- Suggest riparian shoreline enhancements and Elliott Bay shoreline enhancements.

- What guarantees are there that low-priority projects won't be forgotten once the Panel's work is done?

- The City of Tukwila has annexed the oxbow area of the Duwamish River. The area includes sites 1 and 2 of the potential habitat development project inventory.

- Sea Scouts is interested in the Seaboard project and in being one of the long-term stewards (in return for having a permanent home for the *Yankee Clipper*).