

6/17/98

M13A  
clerk 6/18/98

Introduced By:

ROB MCKENNA  
GREG NICKELS  
LARRY PHILLIPS  
PETE VON REICHBAUER

Proposed No.:

98-384

MOTION NO. **10512**

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A MOTION authorizing an interlocal agreement between King County and city and tribal governments in the Green/Duwamish watershed to provide for sharing of local government responsibilities, including costs, for the Green/Duwamish Watershed Ecosystem Restoration Study.

WHEREAS, populations of salmon and other fish and wildlife species in the Green/Duwamish watershed have been declining over time and restoration of habitat is key to rebuilding these populations, and

WHEREAS, numerous studies and reports have identified urgent habitat restoration needs in the Green/Duwamish watershed, and the potential listing of chinook salmon under the Federal Endangered Species Act underscores the need for habitat restoration, and

WHEREAS, the United States Army corps of engineers (Corps) conducted a reconnaissance study for ecosystem restoration of the watershed that defined habitat needs and identified fifty-five acquisition and restoration projects to address these needs, and

WHEREAS, the Corps has been further authorized under federal law to conduct, with local sponsorship, a feasibility study to assess the potential for implementing the habitat restoration and acquisition projects identified in the reconnaissance study, and

1           WHEREAS, King County has initiated a Feasibility Cost Sharing Agreement with  
2 the Corps to conduct the feasibility study, and

3           WHEREAS, the Green/Duwamish Watershed Forum, encompassing the  
4 jurisdictions sharing the watershed, including King County, has placed a high priority on  
5 working to implement habitat restoration projects, and

6           WHEREAS, the watershed jurisdictions wish to join with King County to share  
7 local sponsorship responsibilities, including funding, for the Feasibility Cost Sharing  
8 Agreement with the Corps, and

9           WHEREAS, the feasibility study will lay critical groundwork, including design and  
10 environmental compliance work, for implementing the most important habitat restoration  
11 and acquisition projects in the Green/Duwamish watershed, and

12           WHEREAS, continued interjurisdictional cooperation is vital to the success of  
13 habitat restoration efforts across the Green/Duwamish watershed;

14           NOW, THEREFORE BE IT MOVED by the Council of King County:  
15 The executive is authorized to enter into an interlocal agreement, in substantially the same

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form as attached, to share local sponsorship responsibilities for the Green/Duwamish  
Ecosystem Restoration Study feasibility phase.

PASSED by a vote of 10 to 0 this 27<sup>th</sup> day of July

1998

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON

*Louise Miller*  
Chair

ATTEST:

*[Signature]*

Clerk of the Council

- Attachments: A-Interlocal Agreement
- B-Agreement between the Army & King County
- C-Project Study Plan
- D-Local Cost Distribution List

105124

**Green/Duwamish Watershed**

**ERS Feasibility Phase Cost Sharing**

**Interlocal Agreement**

1           THIS AGREEMENT is made and entered into by the local governments signing  
2 it, collectively known as the "Participants." The Participants are King County and a  
3 subset of the city governments and tribes that have jurisdiction within the  
4 Green/Duwamish River watershed, which qualifies them for membership in the  
5 Green/Duwamish Watershed Forum. This currently includes the Cities of Algona,  
6 Auburn, Black Diamond, Covington, Des Moines, Enumclaw, Federal Way, Kent, Maple  
7 Valley, Renton, SeaTac, Seattle, and Tukwila; and the Muckleshoot Indian Tribe.

8           WHEREAS, populations of salmon and other fish and wildlife species in the  
9 Green/Duwamish watershed have declined over time, and

10           WHEREAS, restoration of habitat is key to rebuilding populations of salmon and  
11 other fish and wildlife in the watershed, and

12           WHEREAS, numerous studies and reports have identified urgent habitat  
13 restoration needs in the Green/Duwamish watershed, and

14           WHEREAS, the Participants have pledged through the Green/Duwamish  
15 Watershed Forum to work cooperatively on habitat restoration within the watershed, and

16           WHEREAS, the U.S. Army Corps of Engineers (Corps) previously conducted the  
17 reconnaissance phase of the Green/Duwamish Ecosystem Restoration Study of the  
18 Green/Duwamish watershed pursuant to section 209 of public law 97-874, Puget Sound  
19 and Adjacent Waters Study, and

1 WHEREAS, the reconnaissance study identified 54 potential ecosystem and  
2 habitat restoration projects that are needed in the watershed, and

3 WHEREAS, the Corps has determined that a feasibility phase is required for the  
4 Ecosystem Restoration Study to evaluate the feasibility of implementing restoration  
5 projects, and has agreed to fund the cost of feasibility phase of the study in conjunction  
6 with a local government sponsor, and

7 WHEREAS, the Participants wish to work cooperatively to share local sponsor  
8 responsibilities for funding and managing the feasibility phase, and

9 WHEREAS, pursuant to RCW 39.34, the Interlocal Cooperation Act, the  
10 Participants are each authorized to enter into an agreement for cooperative action;

11 NOW THEREFORE, the Participants mutually agree as follows:

12 **I. Purpose of Agreement**

13 This Agreement provides a means for the Participants to share local government  
14 responsibilities for the feasibility phase of the Green/Duwamish Ecosystem  
15 Restoration Study, (hereinafter "Study"). In addition to this Agreement, tasks,  
16 management, products, and schedule for the study are specified in two  
17 documents: The Feasibility Cost-Sharing Agreement (FCSA) between the Corps  
18 and King County, and the Project Study Plan (PSP). The FCSA and current  
19 version of the PSP are attached to this Agreement as Exhibit One and  
20 incorporated herein.

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**II. Effectiveness and Duration**

- A. This Agreement is effective upon signature by at least the number of Participants to achieve seventy-five percent (75%) of the funding to be raised by the Participants for 1998, as outlined on "Local Cost Distributions for the Green/Duwamish Ecosystem Restoration Feasibility Study," attached to this Agreement as Exhibit Two and incorporated herein.
- B. No cost share has yet been determined for the Muckleshoot Indian Tribe. At the time this Agreement was prepared, it was not anticipated that the Tribe's participation is necessary to make this agreement effective. A cost share for the Tribe will be determined pursuant to Agreement Section VI.A.3 and the Tribe may become a Participant pursuant to Agreement Section VII.B.
- C. This Agreement will remain in effect until December 31, 2000, unless extended by written amendment by the Participants.

**III. Agreement Administration**

- A. King County shall be the Administrator of this Agreement. The Administrator shall be responsible for:
  - 1. necessary coordination among the Participants to fulfill the requirements of this Agreement;
  - 2. the receipt, accounting, and management of funds made available by the Participants to contribute to the Study, as set out in Agreement Section VI;

- 1 3. monitoring and tracking amounts of in-kind services to be provided by the
- 2 Participants, as called for in the FCSA and PSP, to fulfill in-kind work
- 3 requirements for the local study sponsor;
- 4 4. preparing and providing updated versions of the PSP to reflect changes in
- 5 study scope, schedule, and budget as decided upon by the Corps and the
- 6 Participants through committee processes, as outlined in Agreement
- 7 Section IV.B.;
- 8 5. preparing and providing updated versions of Exhibit Two to this
- 9 Agreement based on PSP revisions as described above.

10 B. The Participants shall use consensus to resolve any conflicts arising in relation  
11 to complying with the terms and conditions of this Agreement. Any conflicts  
12 which are not resolved with fifteen (15) days of the conflict arising shall be  
13 referred to the Director of the King County Department of Natural Resources  
14 and the appropriate city mayor or manager and/or tribal representative, who  
15 shall resolve the conflict.

#### 16 **IV. Ecosystem Restoration Study Performance and Direction**

17 A. The study will be performed and directed through four committees: the  
18 Executive Committee, the Steering Committee, the Project Study Team (also  
19 know as the "Study Management Team" in the FCSA), and the Technical  
20 Review Team;

##### 21 1. Executive Committee

22 The role of the Executive Committee is to generally oversee the study  
23 consistent with the PSP. Functions, membership, meeting frequency, and

1 decision-making mechanisms of the Executive Committee are as defined  
2 in Section 1.4.a. of the PSP.

3 2. Steering Committee

4 The role of the Steering Committee is to provide study direction on a  
5 month-to-month basis, subject to decision-making authority of the  
6 Executive Committee and other decision-making authority as set out in the  
7 FCSA. Steering Committee functions, membership, meeting frequency,  
8 and decision-making mechanisms as defined in Section 1.4.b. of the PSP.

9 3. Project Study Team

10 The role of the Project Study Team is to manage and conduct the work of  
11 the study on a day-to-day basis. Project Study Team functions,  
12 membership, meeting frequency, and decision-making mechanisms are as  
13 defined in Section 1.4.c. of the PSP.

14 4. Technical Review Team

15 The role of the Technical Review Team is to ensure that study products  
16 are accurate and consistent with accepted scientific standards for  
17 ecosystem restoration. Technical Review Team functions, membership,  
18 meeting frequency, and decision-making mechanisms are as defined in  
19 Section 1.4.d. of the PSP.

20 B. The PSP may be updated to reflect changes in the scope, schedule, and budget  
21 for the study as agreed upon by the Corps and the Participants through  
22 Committee processes. Revised versions of the PSP which reflect agreed upon  
23 scope, schedule, or budget changes will replace prior PSP versions and will be  
24 attached to this Agreement.



1 C. The PSP will include addenda providing for addition to the study of small  
2 habitat restoration pilot projects which will be funded and managed solely  
3 between the Corps and King County. These pilot projects will not be subject  
4 to management by the Steering Committee or other management or decision  
5 structures involving other Participants. Any pilot projects to be managed and  
6 financed solely between the Corps and King County will be clearly identified  
7 as such in PSP addenda and will not be subject to the study management and  
8 funding provisions of this Agreement.

9 **V. Responsibilities**

10 **A. King County shall:**

- 11 1. coordinate, facilitate, and participate in the work of the Steering  
12 Committee and Executive Committee on study issues;
- 13 2. provide in-kind services of staff and consultants equivalent to 2 FTE (full-  
14 time equivalent staff) for the duration of the study, to fulfill FCSA/PSP  
15 requirements;
- 16 3. contribute to study costs in the amount specified in Exhibit Two, and  
17 contribute cost increases based on agreed-upon revisions to study scope,  
18 schedule, or budget.
- 19 4. act as the Agreement administrator as outline in Agreement Section III.

20 **B. The Participants shall each:**

- 21 1. provide representatives to serve on the Steering Committee and the  
22 Executive Committee, if selected for Executive Committee membership;

- 1 2. contribute to study costs in the amounts specific in Exhibit Two, and to  
2 contribute cost increases based on agreed-upon revisions to study scope,  
3 schedule, or budget.
- 4 3. subject to budget availability, provide in-kind services of staff and  
5 consultants equivalent to 0.1 FTE for the duration of the study, FCSA/PSP  
6 requirements;

## 7 **VI. Financial Arrangements**

### 8 **A. Project Costs and Cost Shares**

- 9 1. Currently, total estimated local costs associated with the Feasibility Phase  
10 of the Ecosystem Restoration Study are \$554,005, of which \$299,005 is to  
11 be provided in cash and \$255,571 is to be provided in in-kind  
12 contributions. Current cash contributions required from each potential  
13 Participant, except for the Muckleshoot Tribe, are outlined in Exhibit  
14 Two.
- 15 2. If the Participants, acting as the Steering Committee, wish to revise the  
16 study scope, schedule, or budget such that study costs are increased, the  
17 Participants will increase their cost shares to cover the increase through  
18 the Steering Committee. Revisions to the study, scope, schedule, and  
19 budget which increase or decrease study costs are subject to the approval  
20 of the Executive Committee. As described in Agreement Section III.,  
21 King County will prepare and provide any revised versions of Exhibit  
22 Two to reflect cost share increases.
- 23 3. If the Muckleshoot Tribe wishes to become a Participant, an appropriate  
24 cost share will be determined by majority decision of the other

1 Participants working in conjunction with the Tribe. The Tribe may  
2 become a Participant pursuant to Agreement Section VII.B.

- 3 4. If some watershed jurisdictions opt not to participate in cost-sharing, the  
4 Participants, acting as the Steering Committee, will recommend any  
5 desired changes to the scope of the study for Executive Committee  
6 approval. The Participants may also decide to increase their cost shares if  
7 some watershed jurisdictions do not participate in this Agreement. Any  
8 study scope changes and/or cost share revisions will be reflected in a  
9 revised PSP and/or Exhibit Two.
- 10 5. The distribution of in-kind services among the Participants shall be as  
11 expressed in the Responsibilities section of this Agreement.

12 **B. Billing and Payment**

- 13 1. King County shall invoice the other Participants upon execution of this  
14 Agreement for their 1998 cash shares and on December 1, 1998, for their  
15 1999 cash shares. Cash shares for 1998 shall be sixty percent (60%) of the  
16 Participants total cash shares, as outlined on Exhibit Two; the 1999 cash  
17 shares shall be the remaining forty percent (40%).
- 18 2. The Participants shall remit payment to King County within 60 days of  
19 receipt of invoice. Non-payment of invoices that are more than 45 days  
20 past due shall result in the suspension of all rights of the Participant under  
21 this Agreement until payment is made.
- 22 3. King County will remit all local cost shares, including its own, to the  
23 Corps according to schedules described in the FCSA.

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4. Within 90 days after the conclusion of the study period or termination of the FCSA, the Corps will provide to King County a final accounting of actual study costs incurred as compared to study contributions provided by the local sponsor. King County will provide copies of this accounting to the other Participants within 10 days of receiving it. The FCSA provides that within 30 days after the Corps submits the study cost accounting, it will reimburse the local sponsor for the excess of cash contributions given over its required share of study costs, or the sponsor shall provide the Corps any cash contributions required for the local sponsor to meet its required share of study costs. King County will refund to the Participants, in the proportions that Participants provided study costs, any cost reimbursement received from the Corps. Any additional cash contributions required to meet actual study costs will be paid by the Participants in the proportions in which they provided study contributions, subject to their prior approval.

**VII. Termination and Amendment**

- A. Any Participant may terminate its role in this Agreement by providing 30 days' written notice to the Administrator. Past study contributions which have already been provided to King County and remitted to the Corps will not be reimbursed. King County will refund to the terminating Participant any cost shares which have not yet been remitted to the Corps.
- B. This Agreement may be amended or altered only by written agreement of the Participants or as otherwise provided in this Agreement. Once the agreement has been made effective pursuant to Agreement Section II., additional parties

1 as noted in the first paragraph of this Agreement may become Participants by  
2 simple majority decision of the existing Participants.

3 C. The Participants represent that funds for the 1998 budget of this project have  
4 been appropriated and are available.

5 D. As previously described, the following may be appended to the agreement in  
6 the future and incorporated herein:

- 7 1. Revised versions of the PSP which reflect agreed-upon revisions to the  
8 study scope, schedule, and budget;
- 9 2. Revised versions of Exhibit Two that reflect adjustments in Participants'  
10 cost shares.
- 11 3. Addenda to the PSP which describe pilot projects to be managed solely  
12 between King County and the Corps.

13 E. This agreement is not assignable by any Participant, either in whole or in part.

14 F. This agreement is a complete expression of the terms hereto and any oral or  
15 written representations or understandings not incorporated herein are  
16 excluded. Waiver of any default shall not be deemed to be waiver of any  
17 subsequent default. Waiver of breach of any provision of this agreement shall  
18 not be deemed to be a waiver of any other or subsequent breach and shall not  
19 be construed to be a modification of the terms of the Agreement unless stated  
20 to be such through written approval by the Participants which shall be  
21 attached to the original Agreement.

22 **VIII. Counterparts**

23 This agreement may be executed in counterparts.

24 **IX. Indemnification and Hold Harmless**

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The Participants agree to the following:  
Each Participant shall protect, defend, indemnify, and save harmless the other Participants, their officers, officials, employees, and agents, while acting within the scope of their employment as such, from any and all costs, claims judgments, and/or awards of damages, arising out of, or in any way resulting from, each Participant's own negligence acts or omissions. Each Participant agrees that its obligations under this subparagraph extend to any claim, demand, and/or cause of action brought by, or on behalf of, any of its employees or agents. For this purpose, each Participant, by mutual negotiation, hereby waives, with respect to the other Participants only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51 RCW. In the event that any Participant incurs any judgment, award, and/or cost arising therefrom, including attorneys' fees to enforce the provisions of this Article, all such fees, expenses, and costs shall be recoverable from the responsible Participant to the extent of that Participant's culpability.

IN WITNESS WHEREOF, THE Participants hereto have executed this Agreement on the \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

Approved as to Form City of Auburn  
By: \_\_\_\_\_ By: \_\_\_\_\_  
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By: \_\_\_\_\_

Title: Deputy Prosecuting Attorney

City of Black Diamond

By: \_\_\_\_\_

Title: \_\_\_\_\_

City of Covington

By: \_\_\_\_\_

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City of Enumclaw

By: \_\_\_\_\_

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City of Federal Way

By: \_\_\_\_\_

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City of Kent

By: \_\_\_\_\_

Title: \_\_\_\_\_

King County

By: \_\_\_\_\_

Title: King County Executive

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Approved as to Form

City of Maple Valley

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Approved as to Form

Muckleshoot Indian Tribe

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

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Approved as to Form

City of Renton

By: \_\_\_\_\_

By: \_\_\_\_\_

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City of SeaTac

By: \_\_\_\_\_

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City of Seattle

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Approved as to Form

City of Tukwila

By: \_\_\_\_\_

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AGREEMENT  
BETWEEN THE DEPARTMENT OF THE ARMY  
AND  
KING COUNTY  
FOR THE DUWAMISH GREEN RIVER ECOSYSTEM RESTORATION STUDY

THIS AGREEMENT is entered into this 6<sup>th</sup> day of October, 1997, by and between Department of the Army (hereinafter the "Government"), represented by the District Engineer executing this Agreement, and King County (hereinafter the "Sponsor"),

WITNESSETH, that

WHEREAS, the Congress has authorized the U.S. Army Corps of Engineers to conduct a study of Ecosystem Restoration in the Duwamish/Green River Basin pursuant to section 209 of public Law 87-874, Puget Sound and Adjacent Waters Study and

WHEREAS, the U.S. Army Corps of Engineers has conducted a reconnaissance study of ecosystem restoration of the Duwamish/Green River Basin pursuant to this authority, and has determined that further study in the nature of a "Feasibility Phase Study" (hereinafter the "Study") is required to fulfill the intent of the study authority and to assess the extent of the Federal interest in participating in a solution to the identified problem; and

WHEREAS, Section 105 of the Water Resources Development Act of 1986 (Public Law 99-662, as amended) specifies the cost sharing requirements applicable to the Study;

WHEREAS, the Sponsor has the authority and capability to furnish the cooperation hereinafter set forth and is willing to participate in study cost sharing and financing in accordance with the terms of this Agreement; and

WHEREAS, the Sponsor and the Government understand that entering into this Agreement in no way obligates either party to implement a project and that whether the Government supports a project authorization and budgets it for implementation depends upon, among other things, the outcome of the Study and whether the proposed solution is consistent with the Economic and Environmental Principals and Guidelines for Water and Related Land Resources Implementation Studies and with the budget priorities of the Administration;

NOW THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS

For the purposes of this Agreement:

A. The term "Study Costs" shall mean all disbursements by the Government pursuant to this Agreement, from Federal appropriations or from funds made available to the Government by the Sponsor, and all negotiated costs of work performed by the Sponsor pursuant to this

Agreement. Study Costs shall include, but not be limited to: labor charges; direct costs; overhead expenses; supervision and administration costs; the costs of participation in Study Management and Coordination in accordance with Article IV of this Agreement; the costs of contracts with third parties, including termination or suspension charges; and any termination or suspension costs (ordinarily defined as those costs necessary to terminate ongoing contracts or obligations and to properly safeguard the work already accomplished) associated with this Agreement.

B. The term "estimated Study Costs" shall mean the estimated cost of performing the Study as of the effective date of this Agreement, as specified in Article III.A. of this Agreement.

C. The term "excess Study Costs" shall mean Study Costs that exceed the estimated Study Costs and that do not result from mutual agreement of the parties, a change in Federal law that increases the cost of the Study, or a change in the scope of the Study requested by the Sponsor.

D. The term "study period" shall mean the time period for conducting the Study, commencing with the release to the U.S. Army Corps of Engineers Seattle District of initial Federal feasibility funds following the execution of this Agreement and ending when the Assistant Secretary of the Army (Civil Works) submits the feasibility report to the Office of Management and Budget (OMB) for review for consistency with the policies and programs of the President

E. The term "PSP" shall mean the Project Study Plan, which is attached to this Agreement and which shall not be considered binding on either party and is subject to change by the Government, in consultation with the Sponsor.

F. The term "negotiated costs" shall mean the costs of in-kind services to be provided by the Sponsor in accordance with the PSP.

G. The term "fiscal year" shall mean one fiscal year of the Government. The Government fiscal year begins on October 1 and ends on September 30.

## ARTICLE II - OBLIGATIONS OF PARTIES

A. The Government, using funds and in-kind services provided by the Sponsor and funds appropriated by the Congress of the United States, shall expeditiously prosecute and complete the Study, in accordance with the provisions of this Agreement and Federal laws, regulations, and policies.

B. In accordance with this Article and Article III.A., III.B. and III.C. of this Agreement, the Sponsor shall contribute cash and in-kind services equal to fifty (50) percent of Study Costs other than excess Study Costs. The Sponsor may, consistent with applicable law and regulations, contribute up to 25 percent of Study Costs through the provision of in-kind services. The in-kind services to be provided by the Sponsor, the estimated negotiated costs for those services, and the estimated schedule under which those services are to be provided are specified in the PSP.

Negotiated costs shall be subject to an audit by the Government to determine reasonableness, allocability, and allowability.

C. The Sponsor shall pay a fifty (50) percent share of excess Study Costs in accordance with Article III.D. of this Agreement.

D. The Sponsor understands that the schedule of work may require the Sponsor to provide cash or in-kind services at a rate that may result in the Sponsor temporarily diverging from the obligations concerning cash and in-kind services specified in paragraph B. of this Article. Such temporary divergences shall be identified in the quarterly reports provided for in Article III.A. of this Agreement and shall not alter the obligations concerning costs and services specified in paragraph B. of this Article or the obligations concerning payment specified in Article III of this Agreement.

E. If, upon the award of any contract or the performance of any in-house work for the Study by the Government or the Sponsor, cumulative financial obligations of the Government and the Sponsor would result in excess Study Costs, the Government and the Sponsor agree to defer award of that and all subsequent contracts, and performance of that and all subsequent in-house work, for the Study until the Government and the Sponsor agree to proceed. Should the Government and the sponsor require time to arrive at a decision, the Agreement will be suspended in accordance with Article X., for a period of not to exceed six months. In the event the Government and the sponsor have not reached an agreement to proceed by the end of their 6 month period, the Agreement may be subject to termination in accordance with Article X.

F. No Federal funds may be used to meet the Sponsor's share of Study Costs unless the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute.

G. The award and management of any contract with a third party in furtherance of this Agreement which obligates Federal appropriations shall be exclusively within the control of the Government. The award and management of any contract by the Sponsor with a third party in furtherance of this Agreement which obligates funds of the Sponsor and does not obligate Federal appropriations shall be exclusively within the control of the Sponsor, but shall be subject to applicable Federal laws and regulations.

H. The Sponsor shall be responsible for the total cost of developing a response plan for addressing any hazardous substances regulated under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767, (codified at 42 U.S.C. Sections 9601-9675), as amended, existing in, on, or under any lands, easements or rights-of-way that the Government determines to be required for the construction, operation, and maintenance of the project. Such costs shall not be included in total study costs.

I. The Sponsor's contributions to Study Costs and participation in the Study are subject to the Sponsor's annual budget allocation processes. The sponsor's budget allocations are approved

in approximately November of each year for the following Sponsor fiscal year (January to December). In the case that budget approval for the Sponsor's participation is not granted in any given year, this agreement may be subject to termination in accordance with Article X. of this Agreement

### ARTICLE III - METHOD OF PAYMENT

A. The Government shall maintain current records of contributions provided by the parties, current projections of Study Costs, current projections of each party's share of Study Costs, and current projections of the amount of Study Costs that will result in excess Study Costs. At least quarterly, the Government shall provide the Sponsor a report setting forth this information. As of the effective date of this Agreement, estimated Study Costs are \$1,088,010 and the Sponsor's share of estimated Study Costs is \$554,005. In order to meet the Sponsor's cash payment requirements for its share of estimated Study Costs, the Sponsor must provide a cash contribution currently estimated to be \$299,005. The dollar amounts set forth in this Article are based upon the Government's best estimates, which reflect the scope of the study described in the PSP, projected costs, price-level changes, and anticipated inflation. Such cost estimates are subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Sponsor.

B. The Sponsor shall provide its cash contribution required under Article II.B. of this Agreement in accordance with the following provisions:

1. No later than 30 calendar days prior to the scheduled date for the Government's issuance of the solicitation for the first contract for the Study or for the Government's anticipated first significant in-house expenditure for the Study, the Government shall notify the Sponsor in writing of the funds the Government determines to be required from the Sponsor to meet its required share of Study Costs for the first fiscal year of the Study (fiscal year 1997) and for the first quarter of second fiscal year (fiscal year 1998). No later than 15 calendar days thereafter, the Sponsor shall provide the Government the full amount of the required funds by delivering a check payable to "FAO, USAED, Portland,(Seattle)" to the District Engineer.

2. For the remaining three quarters of fiscal year 1998 and the first quarter of fiscal year 1999, the Government shall, no later than December 1, 1997, notify the Sponsor in writing of the funds the Government determines to be required from the Sponsor to meet its required share of Study Costs for that period, taking into account any temporary divergences identified under Article II.C. of this Agreement. No later than January 15, 1998 the Sponsor shall make the full amount of the required funds available to the Government through the funding mechanism specified in paragraph B.2. of this Article.

3. For the remaining three quarters of fiscal year 1999, the Government shall, no later than December 1, 1998, notify the Sponsor in writing of the funds the Government determines to be required from the Sponsor to meet its required share of Study Costs for that period, taking into account any temporary divergences identified under Article II.C. of this Agreement. No later than

January 15, 1999 the Sponsor shall make the full amount of the required funds available to the Government through the funding mechanism specified in paragraph B.2. of this Article.

4. The Government shall draw from the funds provided by the Sponsor such sums as the Government deems necessary to cover the Sponsor's share of contractual and in-house fiscal obligations attributable to the Study as they are incurred.

5. In the event the Government determines that the Sponsor must provide additional funds to meet its share of Study Costs, the Government shall so notify the Sponsor in writing. No later than 60 calendar days after receipt of such notice, the Sponsor shall make the full amount of the additional required funds available through the funding mechanism specified in paragraph B.2. of this Article.

C. Within ninety (90) days after the conclusion of the Study Period or termination of this Agreement, the Government shall conduct a final accounting of Study Costs, including disbursements by the Government of Federal funds, cash contributions by the Sponsor, the amount of any excess Study Costs, and credits for the negotiated costs of the Sponsor, and shall furnish the Sponsor with the results of this accounting. Within thirty (30) days thereafter, the Government, subject to the availability of funds, shall reimburse the Sponsor for the excess, if any, of cash contributions and credits given over its required share of Study Costs, other than excess Study Costs, or the Sponsor shall provide the Government any cash contributions required for the Sponsor to meet its required share of Study Costs other than excess Study Costs.

D. The Sponsor shall provide its cash contribution for excess Study Costs as required under Article II. C. of this Agreement by delivering a check payable to "FAO, USAED, PORTLAND DISTRICT" to the District Engineer as follows:

1. After the project that is the subject of this Study has been authorized for construction, no later than the date on which a Project Cooperation Agreement is entered into for the project; or
2. In the event the project that is the subject of this Study is not authorized for construction by a date that is no later than 5 years of the date of the final report of the Chief of Engineers concerning the project, or by a date that is no later than 2 years after the date of the termination of the study, the Sponsor shall pay its share of excess costs on that date (5 years after the date of the Chief of Engineers or 2 year after the date of the termination of the study).

#### ARTICLE IV - STUDY MANAGEMENT AND COORDINATION

A. To provide for consistent and effective communication, the Sponsor and the Government shall appoint named senior representatives to an Executive Committee. Thereafter, the Executive Committee shall meet regularly until the end of the Study Period.

B. Until the end of the Study Period, the Executive Committee shall generally oversee the Study consistently with the PSP.

- C. The Executive Committee may make recommendations that it deems warranted to the District Engineer on matters that it oversees, including suggestions to avoid potential sources of dispute. The Government in good faith shall consider such recommendations. The Government has the discretion to accept, reject, or modify the Executive Committee's recommendations.
- D. The Executive Committee shall appoint representatives to serve on a Study Management Team. The Study Management Team shall keep the Executive Committee informed of the progress of the Study and of significant pending issues and actions, and shall prepare periodic reports on the progress of all work items identified in the PSP.
- E. The costs of participation in the Executive Committee (including the cost to serve on the Study Management Team) shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

#### ARTICLE V - DISPUTES

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to both parties. The parties shall each pay 50 percent of any costs for the services provided by such a third party as such costs are incurred. Such costs shall not be included in Study Costs. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

#### ARTICLE VI - MAINTENANCE OF RECORDS

A. Within 60 days of the effective date of this Agreement, the Government and the Sponsor shall develop procedures for keeping books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement to the extent and in such detail as will properly reflect total Study Costs. These procedures shall incorporate, and apply as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to state and local governments at 32 C.F.R. Section 33.20. The Government and the Sponsor shall maintain such books, records, documents, and other evidence in accordance with these procedures for a minimum of three years after completion of the Study and resolution of all relevant claims arising therefrom. To the extent permitted under applicable Federal laws and regulations, the Government and the Sponsor shall each allow the other to inspect such books, documents, records, and other evidence.

B. In accordance with 31 U.S.C. Section 7503, the Government may conduct audits in addition to any audit that the Sponsor is required to conduct under the Single Audit Act of 1984, 31 U.S.C. Sections 7501-7507. Any such Government audits shall be conducted in accordance

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with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations. The costs of Government audits shall be included in total Study Costs and shared in accordance with the provisions of this Agreement.

#### ARTICLE VII - RELATIONSHIP OF PARTIES

The Government and the Sponsor act in independent capacities in the performance of their respective rights and obligations under this Agreement, and neither is to be considered the officer, agent, or employee of the other.

#### ARTICLE VIII - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, nor any resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

#### ARTICLE IX - FEDERAL AND STATE LAWS

In the exercise of the Sponsor's rights and obligations under this Agreement, the Sponsor agrees to comply with all applicable Federal and State laws and regulations, including Section 601 of Title VI of the Civil Rights Act of 1964 (Public Law 88-352) and Department of defense Directive 5500.11 issued pursuant thereto and published in 32 C.F.R. Part 195, as well as Army Regulations 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army".

#### ARTICLE X - TERMINATION OR SUSPENSION

A. This Agreement shall terminate at the conclusion of the Study Period, and neither the Government nor the Sponsor shall have any further obligations hereunder, except as provided in Article III. C.; provided, that prior to such time and upon thirty (30) days written notice, either party may terminate or suspend this Agreement. In addition, the Government shall terminate this Agreement immediately upon any failure of the parties to agree to extend the study under Article II.E. of this agreement, or upon the failure of the sponsor to fulfill its obligation under Article III. of this Agreement. In the event that either party elects to terminate this Agreement, both parties shall conclude their activities relating to the Study and proceed to a final accounting in accordance with Article III.C. and III.D. of this Agreement. Upon termination of this Agreement, all data and information generated as part of the Study shall be made available to both parties.

B. Any termination of this Agreement shall not relieve the parties of liability for any obligations previously incurred, including the costs of closing out or transferring any existing contracts.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer for the U.S. Army Corps of Engineers, Seattle District.

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DEPARTMENT OF THE ARMY

[SPONSOR]

BY

James M. Riegl  
Colonel, Corps of Engineers  
District Engineer  
Seattle District

BY

Paul Besonnet  
County Executive  
King County

Attachment - Project Study Plan



**PROJECT STUDY PLAN**  
**Duwamish/Green River Feasibility Study,**  
**Washington**

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1. SCOPE.

**1.1 General.** This Project Study Plan (PSP) is by reference hereby incorporated into the feasibility cost-sharing agreement entitled "Agreement between the Department of the Army and King County, Washington for the Duwamish/Green River Ecosystem Restoration Study." The PSP defines the scope of, and documents the process for conducting, the feasibility phase study and is a means for all those involved in the study (i.e., Seattle District, King County, North Pacific Division, and Corps of Engineers Headquarters) to formally agree to the conduct of the study before it is initiated. The PSP does not attempt to repeat project-related details provided in the final reconnaissance report for this study; the reconnaissance report should be referred to for a detailed description of the reconnaissance studies and related investigations conducted before initiating the feasibility phase of project development.

The feasibility report will be a complete decision document in sufficient detail to provide the basis for the Sponsor, Corps of Engineers, and ultimately the U.S. Congress, to consider approving authorization and construction of the recommended plan. The feasibility report will provide a complete presentation of the study analyses and results, including those developed in the reconnaissance report. The feasibility report will also document compliance of the design with all applicable guidance, statutes, Executive Orders, and policies, and provide a sound basis for decision makers to judge the recommended plan.

The PSP has been developed to plan, define, and control the development and delivery of the products to be completed during the feasibility phase study. The PSP documents the work requirements and the level of detail that will be necessary to describe the without project and with project condition, formulate a range of alternatives and assess their effects, and present a clear rationale for the selection of a plan for implementation. With clearly defined work tasks, the PSP will provide management with a basis for cost and schedule control of the feasibility phase study, and minimize communication and review problems. The PSP addresses the following:

- Study tasks, as well as responsibility for their accomplishment.
- The estimated cost of individual study tasks and total study cost, including the negotiated cost of work items to be accomplished by the Sponsor as in-kind services.
- Corps and other professional criteria to assess the adequacy of the completed work effort, including references to regulations and other guidance that will be followed in performing and evaluating the tasks.

- The schedule of performance and milestones (i.e., key decision points, in-progress reviews, issue resolution meetings, etc.).
- The specific coordination mechanism between the parties to this Agreement.
- Procedures for reviewing and accepting the work of the parties to this Agreement.

The work shall generally be performed in accordance with established criteria and guidance, including the following:

- a. ER 1105-2-100, "Guidance for Conducting Civil Works Planning Studies," U.S. Army Corps of Engineers, December 28, 1990.
- b. ER 1110-2-1150, "Engineering and Design for Civil Works Projects," U.S. Army Corps of Engineers, March 31, 1994.
- c. ER 5-7-1 (FR), "Project Management," U.S. Army Corps of Engineers, September 30, 1992.
- d. ER 500-1-1, U.S. Army Corps of Engineers. 11 March 1991. Emergency Employment of Army and Other Resources Natural Disasters Procedures.
- e. "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies," U.S. Water Resources Council, March 10, 1983.
- f. ER 200-2-2, "Procedures for Implementing NEPA," U.S. Army Corps of Engineers, March 4, 1988.
- g. ER 405-1-12, Chapter 12, "Real Estate Handbook," U.S. Army Corps of Engineers.

**1.2 Reconnaissance Phase Study and Preliminary Project Plan.** The Duwamish/Green River Ecosystem Restoration draft reconnaissance report, dated March 1997, indicated there is a Federal interest in pursuing a feasibility phase study to plan for the construction of a number of Fish and Wildlife restoration sites in the Duwamish/ Green River Basin. The feasibility phase study will address an overall plan for the restoration of fish and wildlife habitat in the Duwamish/Green River Basin. The significant degradation of the ecosystem within the Duwamish/Green River Basin has caused a significant reduction in anadromous fish runs with the basin which have local, national, and international effects. There are also several endangered species within the basin that are effected by the reduction in habitat.

The reconnaissance report will be used as a base from which to continue the required planning studies. Information in the reconnaissance report will be expanded and updated as required to: (a) reflect current problems and opportunities and the desires of the public; (b) to establish final planning criteria and planning objectives to be used to

formulate plans; (c) to identify additional measures to meet the final planning objectives; and (d) to formulate alternative plans to be evaluated.

**1.3 Study Sponsorship and Cooperating Agencies.** The King County is the study sponsor. The following agencies will also participate or will be coordinated with in the study:

The Cities of Tukwila, Renton, Kent, Auburn, SeaTac, Seattle, Algona, Black Diamond, Des Moines, Enumclaw, Federal Way, Maple Valley, and Covington  
 The Muckleshoot Indian Tribe  
 The Suquamish Indian Tribe  
 The City of Tacoma Water Department  
 U.S. Fish and Wildlife Agency  
 Washington Department of Fish and Wildlife  
 Washington State Department of Ecology (Ecology)  
 Department of Natural Resources (DNR)  
 U.S. Environmental Protection Agency, Region 10 (EPA Region 10)

King County anticipates entering into an interlocal agreement with watershed jurisdictions and tribes to support local sponsorship

**1.4 Study Committee Definitions.** The following committees are integral to the feasibility phase study. Their function and membership are summarized below and discussed further in section 2.6 (Study Task Descriptions) and section 3.2 (Methodology) of this PSP.

**a. Executive Committee**

*Membership:* The Executive Committee will include one representative from the U.S. Army Corps of Engineers, one from King County, and one representing the city and tribal participants in the study ILA. The city/tribal representative will be selected by majority vote of the participating cities and tribes.

*Function:* The Executive Committee will oversee the study consistent with PSP, including:

- Providing general policy oversight and ensuring consistency with agency objectives.
- Providing guidance to the Project Study Team and Steering Committee on financing strategies, project priorities, strategies for project implementation, and coordination with other agencies.
- Making final decisions on increases or decreases in the scope of the study, including the cost or duration of the entire study, based on recommendations from the Steering Committee.
- Decision making: The Executive Committee will make decisions by consensus.
- Frequency of Meetings: Semiannually, or more frequently if needed.

**b. Steering Committee**

*Membership:* The Steering Committee will include representatives of all jurisdictions participating in the study ILA, each of which will appoint one member.

*Function:* The Steering Committee will monitor study direction on a month-to-month basis and provide study direction where indicated, including:

- Advising the Manager and Project Study Team on conduct of the study.
- Making decisions on the number, location, and priority of sites to be studied based on the advice of the Project Study Team.
- Making decisions on changes in the schedule and budget of study tasks within the overall scope of the study, and recommending changes outside the study scope to the Executive Committee.
- Nominating a city/tribal representative to the Executive Committee.
- Reviewing quarterly reports as provided by the Project Manager (PSP 2.7a-2.7b.).

*Decision Making:* The Steering Committee will make decisions by majority vote except for decisions on increases or decreases in the overall schedule and budget, which will require unanimous approval of participating jurisdiction and final approval by the Executive Committee.

*Frequency of Meetings:* Unless alternate arrangements are made, the Steering Committee will meet monthly during the regularly scheduled Watershed Staff Committee (the staff group of the Green/Duwamish Watershed Forum) meetings.

#### **c. Project Study Team**

*Membership:* The Project Study Team (also known as the Study Management Team in the Feasibility Cost Sharing Agreement) will be composed of the Project Manager and staff members of the Corps of Engineers, King County, and, if they desire, of participating cities and tribes (see Table 2).

*Function:* The Project Study Team will manage and conduct day-to-day design and compliance work for study, including:

- Conducting field work, survey, environmental review (SEPA/NEPA), engineering, design, biological analysis, real estate analysis, and coordination with other interested parties.
- Recommending changes in study schedule and budget to the Steering Committee.
- Assisting the Project Manager to prepare quarterly study progress reports for submittal to the Executive Committee and the Steering Committee (see 2.7b).

*Decision Making:* The Project Manager will make final decisions within the Project Study Team.

*Frequency of Meetings:* Every two weeks.

#### **d. Technical Review Team**

*Membership:* The Technical Review Team will include technical and scientific experts of the Corps of Engineers and King County, with tribal and city staff members involved as they wish (see Table 3).

*Function:* The Technical Review Team will review study products and decisions for consistency with accepted scientific standards and agency protocols for ecosystem restoration.

*Decision Making:* The Technical Review Team will make decisions by majority vote.

*Frequency of Meetings:* As needed to review study products and decisions.

## 2. REQUIREMENTS.

**2.1 Basic Requirements.** The work to be performed shall consist of the development of alternative plans which will include, as a minimum, the selection of a recommended plan based on the requirements of EC 1105-2-210; the detailed design of the recommended plan; identifying the concerns and needs of the public; preparing construction and OMRR&R cost estimates for the recommended plan; determining the hydraulic design for the different alternatives; computing nonmonetary benefits for the recommended plan; evaluating engineering and economic feasibility for the recommended plan; assessing environmental and social impacts for all alternative plans, including impacts on biological resources, socioeconomic resources, cultural resources, and recreation; determining nonmonetary benefits for the restoration alternatives; providing a real estate gross appraisal report; performing geotechnical and HTRW investigations and analyses; and preparing the required documentation to present the studies, findings, and recommendations.

Extensive public involvement and coordination will be conducted throughout the study, including public workshops, public meetings, interagency coordination meetings, newsletters, and public notices to ensure opportunity to exchange information and views with local, state, tribal, and federal government agencies, special interest groups, and the general public. The end products will be a programmatic NEPA/SEPA environmental impact statement (EIS) and a feasibility report. The feasibility report will describe, in detail, problems and opportunities identified, plans formulated, engineering and economic feasibility and public acceptability of each ecosystem restoration alternative, the social and environmental constraints and impacts and nonmonetary benefits for each alternative, and the identification of the recommended plan.

**2.2 Specific Requirements.** The goal of the study is to provide a plan that can be implemented, has federal and nonfederal support, and will provide nonmonetary benefits at a reasonable and affordable cost. The PSP will limit the work to the minimum necessary to meet the requirements for a complete feasibility report in the most effective manner, with continuous coordination between the Corps of Engineers and King County.

The preparation of the feasibility report will consist of writing the main body and appendices. A programmatic EIS will also be prepared. During the feasibility phase, a feasibility review conference will be held, as will at least one in-progress review (IPR) conference. HQUSACE, North Pacific Division, Seattle District, and King County staff members will attend these conferences. A public meeting will be held after the feasibility

review conference to inform the public that the study has been completed, the results of the study, and the next step for this project.

The feasibility report will then begin the Washington-level review process. This process consists of submitting the report for public review, changes (based on public input) made to the report, signing of the final feasibility report by the District Engineer, submitting the report to North Pacific Division for approval, issuing the Division Engineer's Notice, and submitting the report to the Washington level for review, approval, and further processing to the Assistant Secretary of the Army (Civil Works), the Office of Management and Budget, and the Congress.

**2.3 Feasibility Study Staging.** The feasibility study will be conducted in two stages—programmatic and site-specific—as summarized below. This approach, which has been concurred in the Sponsor, cooperating agencies, and the Corps of Engineers, is designed to increase the likelihood of public acceptance of a plan that recommends development of ecosystem restoration sites throughout the basin. The strategy calls for a phased environmental review, with a programmatic EIS, followed by site-specific EAs developed as the sites are implemented over a 10-year period. The exact number of sites to be analyzed will be determined at the beginning of the study by the Steering Committee, based on the Project Study Team's recommendations. The proposed cost share assumes 40 sites will be analyzed; should the Steering Committee decide to add sites to the analysis, additional cost assessment may be required.

**a. Programmatic Stage.** The programmatic stage will result in preparing a programmatic NEPA/SEPA environmental impact statement (EIS). The purpose of the programmatic, or nonproject, EIS is to provide an initial broad environmental review of the program or action, and to expedite the process of future site-specific projects. The programmatic EIS will address the following:

- Goals, objectives, needs, and purpose.
- Programmatic restoration alternatives.
- Areas of interest within the Duwamish/Green River Basin for fish and wildlife siting criteria.
- Zones of siting feasibility within each area of the basins where restoration sites are needed and could be located.
- Preferred (i.e., publicly acceptable) siting process.
- Process and requirements for volunteer entity to develop restoration sites.

**b. Site-Specific Stage.** The feasibility report will identify a plan recommending sites for development. The proposed cost share assumes 40 sites will be analyzed; should the Steering Committee decide to add sites to the analysis, additional cost assessment may be required.

In the reconnaissance report, 54 sites are presented. The Steering Committee will review the sites identified in the reconnaissance report, and other potential sites, and, based on Project Study Team recommendations, will determine which sites

need site-specific review. This site selection will be completed before proceeding with the site-specific stage of the study. Projects from the reconnaissance list of 54 may be dropped from the feasibility analysis either because they do not fit the ecosystem restoration requirement or they are being developed by other agencies, cities, or private citizens. Additionally, some sites, which will ultimately be proposed for construction, will not require any additional design or environmental compliance, and thus will not be included in the site-specific review.

Cost implications for increases in programmatic review or site-specific review will be evaluated in light of the budgeted cost share amount; further cost share assessments may be made at the unanimous recommendation of the Steering Committee members and with Executive Committee approval. As the study progresses, additional sites may be added to the study under this same cost evaluation and assessment process.

For the selected study sites, engineering, economic, environmental, real estate, and institutional issues will be addressed in the feasibility report in sufficient detail to support the recommendation. Once specific projects have been identified, and during the plans and specifications phase, site-specific NEPA/SEPA compliance will occur. Typically, this will involve developing site specific Environmental Assessments that will tier off of the work developed in the programmatic EIS. The feasibility report will address the following:

- Application of the siting process and selection of restoration sites.
- Site-specific nonmonetary benefit analyses and selection of a preferred candidate site(s).
- Conceptual site design, cost estimating, economic evaluation, and real estate studies necessary to support the recommended plan for development.

**2.4 Work Breakdown Structure.** Work breakdown structure (WBS) is a representation of the study scope broken down into a hierarchy of activities. This structure provides a means for organizing the project study activities in a logical sequence and identifying products or deliverables through the various stages of the study. The WBS was prepared according to guidance contained in ER 5-7-1 (FR), "Project Management," dated September 30, 1992, and is illustrated in Figure 1. The subproducts indicated on WBS Levels 5 and 6 (subproducts of the feasibility report and technical effort required for each subproduct, respectively) form the basis for the feasibility phase study work item descriptions and study cost estimate detailed in the following pages. A summary of the study cost estimate, by study work item, is shown below in Table 1

**2.5 Schedule of Fiscal Year Funding.** The study period is scheduled to start in Government fiscal year (FY) 1997 and finish in FY 1999. The amount of funds required in each FY by the Government and the Sponsor are shown in Table 1.

#### FIGURE 1

**Work Breakdown Structure (WBS) for Feasibility Phase of Project**

**LEVEL 1 (Project):**

1. Duwamish - Green River Fish and Wildlife Habitat Restoration Project
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**LEVEL 2 (Major phases of the project):**

- 2. Reconnaissance phase
- 3. Feasibility phase
- 4. Pre-construction engineering and design (PED) phase
- 5. Construction phase
- 6. Operation and maintenance phase

**LEVEL 3 (Principal product of the feasibility phase):**

7. Feasibility report
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**LEVEL 4 (Features of the feasibility report):**

- |   |
|---|
| 8. Draft programmatic environmental impact statement(EIS) |
| 9. Final programmatic EIS                                 |
| 10. Draft feasibility report                              |
| 11. Final feasibility report                              |

**LEVEL 5 (Sub-products of Level 3) and LEVEL 6 (Technical effort required for each sub-product):**

12. Refer to study task descriptions in Paragraph 4 below
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**2.6 Study Task Descriptions.** Below is a narrative description of the individual study work items, organized by WBS subaccounts, for the feasibility study. The detailed cost-estimate breakdown for individual study work items is shown on Table 1 at the end of the PSP. The study work sequence diagram, including key study and technical review milestones, is also shown at the end of the PSP as Figure 2. As suggested in section 2.3, the task descriptions and their associated costs are based on a total of 40 projects. Should the number of projects, or their scope, be changed (section 2.3 b), the cost estimates for these tasks may need to be revised.

**22A - Public Involvement.**

The Duwamish/Green River Ecosystem Restoration Study will be presenting, for public consideration, new concepts on a complex subject. Numerous stakeholders are potentially affected but may not be aware of this potential project. Therefore, education, increased awareness, and exchange of viewpoints are vital to the interagency development of acceptable and successful recommendations to site the restoration alternatives. The public involvement/outreach strategy will consist of: (1) a series of workshops and public hearings (public hearings will be conducted as part of the NEPA/SEPA review of the draft programmatic EIS); (2) workshop and hearing notices/news releases; and (3) developing a "pool" of citizen and scientific advisors from which expertise and knowledge from outside the Government and Sponsor agencies can be incorporated into planning and design. Coordinating with Native American tribes is an important component of the public involvement program. The Sponsor will provide the majority of the day-to-day public involvement effort. The Sponsor will provide the meeting facilities and develop public notices/news releases for workshops and public hearings. The Government and Sponsor will jointly conduct workshops and NEPA/SEPA public hearings. Reference: ER 1105-2-100.

**22D - Cultural Resource Studies.**

This subaccount includes inventory and assessment required to determine the impacts of restoration alternatives on historic and cultural resources. Cultural resources information will be considered in evaluating different restoration sites. The work will consist of inventory and assessment of archeological and cultural resources, and preparation of required supporting documentation for the preferred restoration alternative. The Government, in consultation with the Washington State Historical Preservation Office will perform this work. References: National Historic Preservation Act of 1966, Archeological and Historical Preservation Act of 1974, National Environmental Policy Act of 1969, Executive Order 11593 (Protection and Enhancement of the Cultural Environment), Native American Religious Freedom Act.

**22E - Environmental Studies.**

This subaccount includes environmental data collection and the determination of environmental impacts and nonmonetary benefits of all alternative plans. A number of discrete tasks have been identified, as described below. Work will lead to preparing a programmatic environmental impact statement (EIS), plus an

appropriate written narrative for the feasibility report. The Government, its contracting agents, and the Sponsor will perform the work. Reference: ER 1105-2-100, ER 200-2-2.

1. Information Management. Geographical Information System (GIS) technology will be used to manage the large volume of diverse Geospatial data/information that will be used to screen the basin and identify geographic areas of interest. Tasks include: identifying/finding/gathering environmental data; preparing digitized data layers (where they do not already exist) for use of GIS in site identification/screening/selection; data quality verification; and GIS system operation and management. Use of GIS will provide a structured approach for systematically considering information critical to the alternative selection process. It is understood that the Government and Sponsor will have free access to the most recent versions of all data throughout the study. The Assessment Methodology for Proposed Projects will also need to be adjusted to better facilitate the incremental cost assessment.

2. Environmental Data Compilation. Includes literature search and data gathering to acquire information for the determination of environmental benefits of the ecosystem restoration alternatives. Specific data will include geology and hydrology, biological resources, fish and wildlife habitat, endangered species, natural resources, cultural resources, Native American treaty rights, recreation, and land and water use. These data will be incorporated as data layers for evaluation using GIS.

3. Field Studies of Alternative Restoration Sites. Site-specific environmental field studies are anticipated for the candidate restoration sites throughout the basin. Field studies will be conducted for at least one sampling season.

4. Site-Specific Field Studies for Restoration Sites. Site-specific environmental field studies are anticipated for the candidate restoration sites. Field studies will be conducted for at least one sampling season, and will include the following:

- field coordination with the design team;
- assess baseline conditions;
- field check for evaluation methodology; and
- field coordination with resource agencies.

5. Programmatic NEPA/SEPA EIS. The principal output of this effort will include: evaluating programmatic alternatives; determining geographic areas of interest and restoration site feasibility; and defining siting criteria impact analysis, endangered species, and developing a project monitoring protocol. The work includes scoping, preparing a draft programmatic EIS, conducting the EIS review process and related environmental coordination, contract management, and producing the final NEPA/SEPA programmatic EIS. During the plans and

specification phase, site-specific Environmental Assessments will be tiered off of the programmatic EIS.

**22F - Fish and Wildlife Coordination Act Report.**

This includes coordination with, and studies conducted by, USFWS, as required by the Fish and Wildlife Coordination Act (FWCA). USFWS activities will include interagency and tribal coordination, planning and evaluating the benefits of different alternatives on fish and wildlife resources, and preparing a draft and a final Fish and Wildlife Coordination Act report for the feasibility report. Related activities by the Government will include preparing and coordinating statements of work and related fund transfer documents for planning activities by USFWS, plus reviewing the draft and final Fish and Wildlife Coordination Act Report by the Government and Sponsor. Reference: Fish and Wildlife Coordination Act of 1958 (PL 85-624, as amended).

**22G - Economic Analysis/Appendix.** This subaccount includes studies and evaluations pertinent to an economic evaluation of all monetary and nonmonetary benefits and costs of the proposed plan and various alternatives. The methodology to quantify nonmonetary benefits that was developed as part of the Reconnaissance Phase will be simplified and revised for use in the feasibility evaluation. Both the outputs from this methodology and the costs developed as part of the design and cost effort will be used as input into the Cost Effectiveness Analysis/Incremental Cost Analysis. The CEA/ICA will be an important tool in evaluating the different sites and plans that will be analyzed as part of the feasibility study. Any potential positive or negative impacts to NED accounts will also be evaluated under this subaccount. A narrative economic report will be included as part of the FR. A financial analysis in support of the construction recommendation will also be prepared and will include a statement of financial capability, a financial capability assessment, and a financing plan. The financing plan will provide detail as to the anticipated funding available to the Sponsor. The Government will perform the economic and financial analyses, with input provided by the Sponsor. The Sponsor will develop the financing plan. Reference: ER 1105-2-100, Draft EC 1165-2-200, Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (March 10, 1983).

**22H - Real Estate Studies/Appendix.** This subaccount includes a gross appraisal of land costs (including relocations) required for economic evaluation and construction of alternative plans developed during the site-specific stage of the study. Work includes detailed determination of cost of lands, easements, and rights-of-way for the recommended plan. A real estate appendix will be prepared that will describe the real estate requirements for the proposed project, and sponsor's administrative and acquisition costs. This information will be summarized in the FR. In addition, Rights-of-Entry will be obtained where needed wherever ground disturbance activities take place and in cases where present owners

will not give verbal approval, even though no ground disturbance will take place. The Government or the Sponsor may perform this Work. Reference: ER 405-1-12, Chapter 12.

**22I - Hydrology Studies/Appendix.** This subaccount includes hydrologic studies to support hydraulic and design studies. Where hydraulic modeling is required to evaluate a given site or series of sites, hydrologic flow duration data will be required for the modeling efforts. Hydraulic tidal input will also be required for the estuary sites that have tidal effects. Hydrologic input to the feasibility report will be prepared along with a Hydrology Appendix. Reference: ER 1105-2-100, ER 1110-2-1150.

**22J - Hydraulic Studies/Appendix.** This subaccount includes hydraulic design studies for the candidate sites throughout the basin. Some of the proposed projects, i.e. side, channels and stream rehab will require hydraulic modeling utilizing a one-dimensional, steady state HEC-RAS numerical model. The hydraulic study plan to evaluate bioengineering bank stabilization or habitat placement features is based on the County and the Corps selecting habitat sites in reaches that have excess freeboard that will allow habitat features being placed with no loss of the existing level of flood protection thus eliminating the need for extensive computer or physical modeling. However if extensive numbers of bioengineering bank stabilization projects are proposed for the Middle Green River area, a 2-dimensional hydrodynamic model and a physical model will be required to determine the effect on the water surface and localized velocity regime of placing a significant number of habitat structures in this critical reach. The hydraulic study plan also includes input for the OMRR&R estimate, the preparation of a hydraulic appendix and a summary for the FR. Reference: ER 1105-2-100, ER 1110-2-1150

**22K - Geotechnical Studies/Appendix.**

This subaccount includes the investigation, exploration, and analysis of foundations and materials conditions related to the selection and design of the selected restoration alternatives. It also includes review of existing data for use in identifying zones of siting feasibility and the screening and selection of candidate restoration sites. The criteria guiding geotechnical investigation and analyses will be that they will be performed in support of project alternatives, at the minimum level necessary to support engineering and design studies needed to establish conceptual designs for project features and elements and to form an appropriate basis for further preconstruction engineering and design (PED) design efforts. The majority of the sites will require a field visit along with the rest of the design and evaluation team. The sites that include moving an existing levee and those sites in the lower estuary will require subsurface investigation. A geotechnical appendix to the feasibility report will be prepared and a summary for the FR. Reference: ER 1110-2-1150

**22L - Hazardous, Toxic, and Radiological Waste (HTRW) Studies.**

The objective of HTRW studies is to determine the presence and character of contamination identified in an initial screening of the preferred restoration sites, estimate the volume and level of any contamination and conduct a site investigation of any selected restoration sites that have a potential for HTRW contamination. The extent of HTRW studies beyond the initial screening, that will be required in support of the site-specific stage of the study, cannot be predetermined; therefore, the cost of the latter portion of this work item is a gross estimate and work is not to be performed until a preliminary screening is accomplished. If screening shows significant contaminants then additional investigation and testing will be required to develop program of site rehabilitation during construction. The Government will perform all work. Reference: ER 1165-2-132. An HTRW appendix will be prepared and a summary statement will be prepared for the FR.

**22N - Survey and Mapping.**

This subaccount includes all surveying, aerial photography, mapping and related tasks necessary to support engineering and design studies for the basin wide restoration study. The Government or its contracting agents will perform all work. Reference: ER 1105-2-100

**22O - Cost Estimates.**

This subaccount includes all cost estimating for the candidate restoration sites and preparation of construction cost estimates for the selected plan. Estimates will be in work breakdown structure format, and the detailed estimate of cost for the recommended plan and NED plan, if different, will be prepared using the M-CASES software. The amount of cost estimates that will be required in support of the site-specific stage of the study cannot be predetermined; therefore, the cost of this work item is a gross estimate and work is not to be performed until after a scope has been approved by the Executive Committee. The Government will perform all work. Input to the Engineering Appendix will be prepared along with a cost table and narrative for the FR. Reference: ER 1110-2-1150, EM 1110-2-1302.

**22P - Engineering and Design Studies/Engineering Appendix.**

This account includes engineering and design studies of alternative restoration sites and preparation of an engineering appendix to the feasibility report. Engineering and design studies will be performed at the minimum level needed to establish conceptual designs for project features and elements and for development of construction cost estimates, and estimates of operation, maintenance, repair, replace and restoration. (OMRR&R) and surveillance. At the same time these studies will establish an appropriate basis for further preconstruction engineering and design (PED) design efforts, and project construction schedules. The Engineering Appendix will consist of all design data analyses, a written description of the design features of the recommended plan,

plates, and cost estimates. The Government will perform all work. Reference: ER 1110-2-1150, ER 1105-2-100, EM 1110-2-5027, EM 1110-2-5025.

**22Q - Study/Project Management.**

This effort will include all activities related to management if the feasibility phase. Activities include: overall coordination with local, state, tribal and federal governmental agencies, ports, industry, interest groups, and the general public; oversight management of in-house, Sponsor, and contracted efforts; coordination of the public involvement program; coordination with the Sponsor; attending meetings and conducting briefings throughout the course of the study; responding to congressional and other inquiries; preparation of budgetary documents and upward reporting; programming, managing and tracking study obligations, and expenditures; and accounting for in-kind services. Management of various reviews of the programmatic EIS and the draft and final feasibility reports is included; this will involve Project Study Team review, coordination with the Technical Review Team, Technical Review Team review, and public review of the draft documents. The Government, the Sponsor, and the city and tribal participants in the study ILA will perform study management activities. This subaccount does not include plan formulation, report preparation, or Washington level review support activities, which are separately described below. Reference: ER 1105-2-100, ER 5-7-1.

**22R - Plan Formulation.**

This subaccount includes the evaluation of alternative plans and selection of the recommended plan, plus general plan formulation activities that are not properly costed against other accounts. Plan formulation is the process whereby project alternatives are conceived and developed to satisfy specific objectives and then combinations of measures are coordinated to develop alternative disposal site plans. Alternative plans will be formulated in consideration of four criteria: completeness, effectiveness, efficiency, and acceptability. The Government and the Sponsor will jointly conduct plan formulation. Reference: ER 1105-2-100.

**22S - Report Preparation.**

This subaccount includes preparation of text and graphics for both the draft and final feasibility report, and EIS. Specific activities include assembling, writing, editing, reviewing, revising and responding to review comments, reproducing, and distributing the draft and final feasibility report. Reference: ER 1105-2-100.

**22T - Technical Review.**

This subaccount includes costs for technical review of the draft feasibility report by the Technical Review Team, as shown on Table 3. Independent technical review of the feasibility report will be conducted independent of the technical production of the report, as described in the Quality Control Plan of this PSP. The study will also have extensive review throughout the plan formulation and EIS process by agencies at the federal, state, local and tribal governmental level, and by the local cities, special interest groups, and the general public. Those

entities most directly involved in plan formulation will include Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, National Marine Fisheries Service, the cities in the basin, Native American tribes, and interest groups. Reference: Draft EC-1165-2, Implementation of Technical and Policy Compliance Review.

**22U - Executive Committee.**

This subaccount includes costs incurred by the study Executive Committee members who will generally oversee the study consistency with the PSP, as prescribed in Article IV of the FCSA. The Executive Committee will have three members, including a representative from each of these three entities: The U.S. Army Corps of Engineers, King County, and the cities and tribes participating in the ILA. Table 1 reflects an estimate of costs that will be incurred by the Seattle District Planning Branch Chief and his counterparts from the Sponsor. Costs incurred by the District Engineer and his counterparts from the Sponsor will not be separately chargeable to the study but, instead, will be charged to General and Administrative overhead and the Sponsor's equivalent overhead account.

**22Y - Washington Level Review Support.**

This subaccount includes reasonable costs of those activities by the Seattle District and King County, which may be necessary to support the review and processing of the feasibility report, from the signing of the final report by the Seattle District Engineer through the request of the Assistant Secretary of the Army (Civil Works) to the Office of Management and Budget for the views of the Administration. These items could include answering comments, attending Washington-level meetings and other necessary travel, and making minor report revisions as a result of review by higher authority. This item will be five percent of the total study cost, or \$50,000, whichever is less, and will be shared equally. Any costs relating to the feasibility report that are incurred following completion of the feasibility phase and subsequent termination of the FCSA will be 100 percent federal costs. The amount of work that will be required during this review cannot be predetermined; therefore, this work item is considered a contingency. Reference: ER 1105-2-100 (Chapter 8), EC 1105-2-208.

**2.7 Study Management and Coordination** Study management and coordination are generally described in Article IV of the Agreement. The specific coordination mechanism between the Government, King County, and the city and tribal participants in the study ILA is described below:

**Coordination Mechanism**

a. The Corps of Engineers Project Manager will be responsible for day-to-day management of the study. He/she will maintain close coordination with the entire Project Study Team to ensure timely prosecution of the study and compliance with this Agreement. The Corps of Engineers Project Manager will meet and confer with the Sponsor's Project Managers on a regular basis throughout the study to discuss study prosecution and progress. The Corps of

Engineers Project Manager will maintain a written record of such meetings, with a copy provided to the Sponsor's Project Manager.

b. The Corps of Engineers Study Manager will prepare quarterly study progress reports, with appropriate input from the Project Study Team. Following review and approval by the Project Study Team, the quarterly study progress reports will be submitted to the Executive Committee and the Steering Committee. The reports will identify progress of all work items during the period, as well as document unresolved conflicts or policy issues requiring action by the Executive Committee.

c. Executive Committee meetings will be scheduled on a semiannual basis. More frequent meetings will be scheduled, as required, to resolve conflicts or policy issues.

**2.8 Review and Acceptance of Work.** The Project Study Team, under the direction of the Corps of Engineers Project Manager, will monitor and review all work. Project Study Team review and acceptance of work items, including contracts, will be documented in the quarterly study progress reports submitted to the Executive Committee and the Steering Committee. Any disagreements about the acceptability of completed work will immediately be brought to the attention of the Executive Committee by the Project Manager, acting through the Project Study Team.

### 3. QUALITY CONTROL PLAN.

**3.1 Purpose.** This Quality Control (QC) Plan presents the process that assures quality products for the Duwamish/Green Ecosystem Restoration Study. This QC Plan defines the responsibilities and roles of each member on the study and Technical Review Team. The primary product to be reviewed by the Technical Review Team is the feasibility report. Under current procedures, technical review is a district function, and policy compliance review is a HQUSACE function. Technical review will be conducted for all decision documents and will be independent of the technical production of the product/project. This QC Plan is, by reference, a part of the Project Study Plan (PSP) for the feasibility study.

**3.2 Methodology.** The Project Study Team is comprised of qualified personnel from within the Seattle District, the U.S. Fish and Wildlife Service, King County (the study sponsor), and the city and tribal participants in the study ILA. Project Study Team members are identified in Table 2.

The Technical Review Team has been selected on the basis of having the proper knowledge, skills, and experience necessary to perform the task, as well as their lack of affiliation with the development of the feasibility report. The Technical Review Team is primarily drawn from Seattle District personnel, to ensure that the technical work and products from economics, engineering, environmental, cost estimating, real estate, and other essential disciplines, achieve a quality product. Technical Review Team members



are identified in Table 3. Technical review of the programmatic EIS will be accomplished through the formal NEPA/SEPA process.

Technical review will use appropriate analytical methods for each technical area. Technical review will rely on periodic Technical Review Team meetings to discuss critical plan formulation or other project decisions, and on the review of the written feasibility report documentation and files. A technical review will ensure and confirm that:

- a. the document is consistent with established criteria, procedures, and policy;
- b. clearly justified and valid assumptions that are in accordance with established guidance and policy have been utilized, with any deviations clearly identified and properly approved;
- c. the concepts, features, analytical methods, analyses, and details are appropriate, fully coordinated, and correct;
- d. the problems/issues are properly defined and scoped; and the conclusions and recommendations are reasonable.

### **3.3 Quality Control Responsibilities.**

**a. General.** Technical Review Team continuity will be maintained through the life of the project, to the maximum extent possible. The size and composition of the Technical Review Team shall be based on the complexity of the project; this composition may change as the project progresses and specific project features are better defined. The Technical Review Team leader will normally be a project manager. The technical review will be funded by project funds.

**b. Project Manager.** The feasibility study project manager shall be responsible for coordinating the review effort with the Technical Review Team leader and shall:

1. ensure that the schedule contains sufficient time to perform reviews of completed products;
2. insure that the team leader is notified of significant Project Study Team meetings and review conferences so that he/she can assemble the Technical Review Team for in-progress reviews; and
3. manage responses to review memorandums and resolve technical issues with the Technical Review Team leader, consult with North Pacific Division as appropriate, and forward all unresolved technical issues to the appropriate Functional Chief for resolution.

**c. Functional Section Chiefs.** Each Functional Section Chief is responsible for ensuring that all work prepared by or for his/her Section has received any necessary internal QC checks prior to the feasibility **report** being furnished to the Technical Review Team for final review.

**d. Technical Review Team Member.** Each Technical Review Team member is responsible for performing an independent technical review and will:

1. attend all major Project Study Team meetings.
2. assemble all review memorandums and/or other review-related correspondence, and maintain a reading file for the use of the Technical Review Team.

**e. Technical Review Team Member.** Each Technical Review Team member is responsible for performing an independent technical review of the assigned study product or portion thereof. The reviewer shall seek assistance from his/her Functional Section Chief whenever the review calls for a level of specialized experience or training not possessed by the reviewer.

### **3.4 Quality Control Process.**

**a. Technical Coordination.** Generally, product development shall be performed in accordance with established criteria and guidance and with policy. Meetings with the appropriate Technical Review Team members during the planning process will be held at key decision-making points. Meetings will also be held to discuss and resolve technical and/or policy issues that may arise during the course of product development. Technical issues and concerns raised during the technical review process will be documented, as will the resolution of these issues and concerns. Telephone and personal contacts with appropriate Technical Review Team members will be used to informally discuss study issues throughout the process.

**b. Product Quality Control.** Product Quality Control is the independent technical review of a completed product. The feasibility study Project Manager will provide completed documents to the Technical Review Team leader who will distribute them to the Technical Review Team members for review. During the review, Technical Review Team meetings will be scheduled as required to ensure that all components have been coordinated, there is consistency throughout the document, and there is a CONSENSUS on proposed revisions. Any issues on which a Technical Review Team position cannot be reached will be referred through the project manager to the District Functional Chief for resolution. The Technical Review Team leader will record the significant team comments in a written review memorandum that will be provided to the project manager for appropriate action. Comments that cannot be resolved between reviewers and Project Study Team will be taken by the Technical Review Team leader and project manager to the appropriate Functional Chief for final disposition; the assistance of North Pacific Division and HQUSACE will be requested as needed.

**3.5 Consultant Products.** Consultants are an extension of the Project Study Team and any designs, reports, etc., prepared by them shall have an independent review by the Technical Review Team just as if they had been prepared by the Project Study Team.

**3.6 Policy Review.** Questions or problems regarding policy concerns will be elevated directly to HQUSACE (CECW-A) for resolution, as the issues develop. Legal and real estate policy issues will be elevated to the Chief Counsel and Director of Real Estate, respectively.

**3.7 Technical Review Documentation.**

All significant review comments will be provided to the Project Study Team in written format. The Project Manager will assure that all significant comments are resolved and their final disposition is identified in writing.

The feasibility report submitted to higher authority shall be accompanied by technical review documentation. This documentation shall be a separate item not to be included as part of the feasibility report. A page indicating the names of the Project Study Team members and Technical Review Team members shall be included.

**3.8 Schedule.** Technical review milestones are scheduled as indicated in Figure 2 of the Project Study Plan, work sequence diagram, and are shown on Table 4 at the end of this plan.

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TABLE 1  
FEASIBILITY STUDY COST ESTIMATE SUMMARY

Subaccount - Study Work Item	FY 1997	FY 1998	FY 1999	Total
<b>22A - PUBLIC INVOLVEMENT</b>				
Government Effort	\$0	\$2,000	\$2,000	\$4,000
Sponsor In-kind Services	\$2,000	\$10,000	\$10,000	\$22,000
<b>22D - CULTURAL RESOURCE STUDIES</b>				
Government Effort	\$10,000	\$15,000	\$0	\$25,000
Sponsor In-kind Services	\$0	\$0	\$0	\$0
<b>22E - ENVIRONMENTAL STUDIES</b>				
<b>Environmental Data Compilation</b>				
Government Effort	\$10,000	\$25,000	\$0	\$35,000
Sponsor In-kind Services	\$5,000	\$10,000	\$0	\$15,000
<b>Environmental Coordination</b>				
Government Effort	\$5,000	\$15,000	\$12,000	\$32,000
Sponsor In-kind Services	\$0	\$10,000	\$3,000	\$13,000
<b>Programmatic NEPA/SEPA</b>				
Government Effort		\$145,000	\$5,000	\$150,000
Sponsor In-kind Services	\$0	\$0	\$0	\$0
<b>Site-specific EIS Review Process</b>				
Government Effort	\$0		\$14,000	\$14,000
Sponsor In-kind Services	\$0	\$0		\$0
<b>22F - FISH &amp; WILDLIFE COORD. ACT REPORT</b>				
Government Effort		\$15,000	\$5,000	\$20,000
Sponsor In-kind Services	\$0	\$0		\$0
<b>22G - ECONOMIC ANALYSIS</b>				
Government Effort	\$0	\$35,000	\$10,000	\$45,000
Sponsor In-kind Services	\$0	\$0		\$0
<b>22H - REAL ESTATE STUDIES</b>				
Government Effort	\$5,000	\$50,000	\$0	\$55,000
Sponsor In-kind Services	\$0	\$5,000		\$5,000
<b>22I - HYDROLOGIC STUDIES</b>				
Government Effort	\$5,000	\$10,000	\$0	\$15,000
Sponsor In-kind Services	\$5,000	\$10,000		\$15,000
<b>22J - HYDRAULIC STUDIES</b>				
Government Effort	\$10,000	\$46,300	\$0	\$56,300
Sponsor In-kind Services	\$5,000	\$20,000	\$0	\$25,000
<b>Subaccount - Study Work Item</b>	<b>FY 1997</b>	<b>FY 1998</b>	<b>FY 1999</b>	<b>Total</b>
<b>22K - GEOTECHNICAL STUDIES</b>				
Government Effort	\$10,000	\$15,300	\$3,000	\$28,300
Sponsor In-kind Services	\$0	\$0	\$0	\$0



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TABLE 1  
FEASIBILITY STUDY COST ESTIMATE SUMMARY

Government Cost Share	\$74,250	\$352,605	\$117,150	\$544,005
Sponsor Cost Share				
(Cash Contribution)	\$24,250	\$211,605	\$63,150	\$299,005
(In-kind Services)	\$50,000	\$141,000	\$54,000	\$245,000
<b>TOTAL ESTIMATE (IN 1997 DOLLARS)</b>	<b>\$148,500</b>	<b>\$705,210</b>	<b>\$234,300</b>	<b>\$1,088,010</b>
OMB INFLATION FACTORS	1	1.042	1.086	
<b>FULLY FUNDED ESTIMATE:</b>				
Government Cost Share	\$74,250	\$367,414	\$127,225	\$568,889
Sponsor Cost Share				
(Cash Contribution)	\$24,250	\$220,492	\$68,581	\$313,323
(In-kind Services)	\$50,000	\$146,922	\$58,644	\$255,566
<b>FULLY FUNDED ESTIMATE</b>	<b>\$148,500</b>	<b>\$734,829</b>	<b>\$254,450</b>	<b>\$1,137,779</b>
NOTE:				
This is a full funding total which involves multiplication of the base year 1997 estimated study cost				
by Office of Management and Budget (OMB) inflation factors for work to be performed in FY 1988 and 1999 .				

**TABLE 2**  
**Duwamish - Green River Fish and Wildlife Restoration Feasibility Study**  
**Project Study Team**

<u>Discipline</u>	<u>Name</u>	<u>Office Symbol/Agency</u>
Project Manager	Noel Gilbrough	CENPS-EN-PL-CP
Assistant Project Manager	Tim Shaw	CENPS-EN-PL-CP
Environmental Coordinator	Pat Cagney	CENPS-EN-PL-ER
Environmental Resources	Merri Martz	CENPS-EN-PL-ER
Cultural Resources	Dr. David Rice	CENPS-EN-PL-ER
Geospatial Data & Systems	Dave Gustafson	CENPS-IM-PI
Environmental Engrg/HTRW	Travis Shaw	CENPS-EN-GT-ET
Geotechnical	Monte Kaiser	CENPS-EN-GT-GE
Hydraulic Engineer	Jim Lencioni	CENPS-EN-H&H
Hydrological Engineer	Bill Cronin	CENPS-EN-H&H
Survey & Mapping	Kurt Noble	CENPS-EN-SY
Fish & Wildlife	Gwil Ging	U.S. Fish & Wildlife Service
Civil Design	Brad Brandt	CENPS-EN-DB-CD
Economic Evaluation	Patty Cardinal	CENPS-EN-PL-CP
Cost Engineering	Bill Garrott	CENPS-EN-CE
Cost Engineering	Stephen Pierce	CENPS-EN-CE
Real Estate	Wanda Gentry	CENPS-RE-AQ
Sponsor	Dennis Canty	King County
Sponsor	Bob Furstenburg	King County
Sponsor	Clint Loper	King County
City Representatives		
Tribal Representatives		
Contractors	(to be determined)	

**TABLE 3**  
**Duwamish - Green River Fish and Wildlife Restoration Feasibility Study**  
**Technical Review Team**

<u>Discipline</u>	<u>Name</u>	<u>Office Symbol/Agency</u>
Technical Review Team Leader	Mike McNeely	CENPS-EN-PL-ERS
Environmental Coordinator	Jeff Dillon	CENPS-EN-PL-ER
Cultural Resources	Lawr Salo	CENPS-EN-PL-ER
Geospatial Data & Systems	Dave Gustafson	CENPS-IM-PI
Environmental Engrg/HTRW	Sandy Lemlich	CENPS-EN-GT-ET
Geotechnical	Jim McBane	CENPS-EN-GT-GE
Hydraulic Engineer	Ron Malmgren	CENPS-EN-H&H
Hydrological Engineer	Loren Jangaard	CENPS-EN-H&H
Fish & Wildlife	Gwil Ging	U.S. Fish & Wildlife Service
Civil Design	Pam Yorozu	CENPS-EN-DB-CD
Economic Evaluation	Jeff Mendenhall	CENPS-EN-PL-CP
Cost Engineering	Mel Bonicillo	CENPS-EN-CE
Real Estate	David A. Garton	CENPS-RE-AQ
Sponsor	Dennis Canty	King County
Sponsor	Bob Furstenburg	King County
Sponsor	Clint Loper	King County
City Representatives		
Tribal Representatives		



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**TABLE 4**  
**Duwamish - Green River Fish and Wildlife Restoration Feasibility Study**  
**Study Milestones**

<b>Milestone</b>	<b>Date</b>
Initiate Feasibility Study	September 1997
Technical Review Conference	September 1998
Submit Report to HQUSACE for review	January 1999
Feasibility Review Conference	April 1999
Public and Agency Review	May 1999
Submit Final District Report to NWD	July 1999
Division Engineers Public Notice	September 1999

## ELLIOT BAY NEAR SHORE PROJECT

This package is a proposal for the Seattle District of the Corps of Engineer to assist in the study and construction of the Elliot Bay Near Shore Project. This proposal includes adding this project to the series of projects being investigated under the Duwamish Green River Feasibility Study that is sponsored by King County.

The overall schedule calls for this project to meld in with the other projects being investigated in an overall Feasibility Study that is currently scheduled to be submitted to the Corps higher authority in November of 1999. Construction would be done, at the earliest 2 years and the report is submitted.

The funding advantage is that the Corps will pay 50% of the cost of the study and 65% of the cost of the project.

### Scope of Work Elliot Bay Near Shore Project

This scope of work is for adding the Elliot Bay Near Shore project to the Duwamish Green Ecosystem Restoration Study that is sponsored by King County and being conducted in partnership with Seattle District Corps of Engineers.

#### *Engineering Design*

This effort would include the design of a small pilot project that would be used to test materials and locations that would be used in the larger project. Any permit input that would be necessary for the pilot. Sponsor will provide the permits. These small projects would be designed for very simple construction techniques and to be easily located for monitoring. This effort would also include the acquisition of materials and the construction of the pilot project

This effort would also include the design of the full size project in the four locations as described in the map provided by King County. The project design would include 3 alternatives, one small alternative (no federal funding) and a small and large federal alternative. The materials and placement methods would be determined during the design studies. Modifications could be made to the final feasibility design based on input from the monitoring of the prototype projects. Modifications would also be made during Plans and Specifications based on Monitoring

#### *Environmental Studies*

This effort would include developing the SEPA/NEPA documentation necessary for the prototype project e.g. existing conditions, toxicity .etc. a literature review for the project, assistance in developing a monitoring plan for the prototype and in developing input for a programmatic EIS that is part of the overall feasibility study. This effort would also include an investigation of eelgrass, and a benthic community characterization and any other green slimy things that live down below.

***Mapping***

This include both a bathometric survey and map of the project area. The bathometric map will have enough detail to be able to tie the four project sites back to pilings and other landforms. This format will make an excellent base to show project features and location.

***HTRW Analysis***

This effort will include a literature review to determine the history of hazardous substances in the area and working with the study team on the project area. It does not include any testing of materials. If it is determined that there is a possibility of hastox material in the project site then a cost estimate for sampling will be provided.

***Report Input***

Prepare a write up and plates for this project for inclusion into the feasibility report.

***Project Management***

Manage the overall effort and studies for the study and prototype project. Write work requests and contracts dealing with this efforts, keep track of funding and funds management system..

***Environmental Coordination***

Coordinate with other resource agencies, attend meeting, and prepare environmental contracts. Supervise all environmental funding and effort dealing with this study.

**ATTACHMENT**

<b>Deliverables</b>	<b>Date</b>	<b>USACE Responsible Unless Indicated</b>
<b>Pilot Project</b>		
Design/specifications	Dec. 1997	
NEPA/EA requirements (Nationwide permit)	Nov. 1997	
401,404 approval	Nov. 1997	
Local permits/HPA/SEPA checklist	Feb 1998	King County
Property Right of Entry	Jan. 1998	King County & USACE
Substrates obtained and put in place according to design	Mar. 1998	
Monitoring /Report	Sept. 1998	King County
<b>Engineering and Design</b>		
for full project within 4 areas as specified	Dec. 1998	
Bathometric & topographic surveys/Maps tied to land features		
Literature Review of similar projects in Central Puget Sound		
Feasibility report including necessary information to achieve project goals, e.g.		
Existing conditions		
Stability of slope & substrate		
Optimum patch size		
Substrates that meet project objectives		
Specific locations within specified areas		
Environmental impacts		
Project Design with cost analysis of 3 options		
<b>Environmental Review</b>		
HTRW Analysis/report	Jun. 1999	
NEPA/SEPA Approvals		
Programmatic EIS docu- mentation, e.g.:		
existing conditions		
potential impacts		
EA approval	Dec. 1999	
Local Permits/SEPA checklist	Jun. 2000	King County
Monitoring plan	Feb. 1999	KC and USACE

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Elliott Bay Near Shore Project				
Tasks/budget breakdown by cash/in-kind and agency				
TASKS		CASH	KC In-Kind	
		COE \$40,000	KC \$20,000	
		KC \$20,000		
Pilot Project		2000		
Specifications				
Monitor/Report			3000	
Construct		5000		
Project Specifications				
Literature Review		2500		
Bathometric Survey		9000		
Topographic Survey/Map		5000		
Project Design		4000		
Feasibility Report Input		2500		
Site Analysis/Design			7000	
Environmental Review				
DMMO/HTRW		5000		
NEPA process/approval		5000		
input		2500		
Permits			5000	
Study Management		5000		
Env. Coordination		4000		
Project Management			5000	
Contingency		8500		
<b>TOTAL</b>		<b>60000</b>	<b>20000</b>	<b>80,000</b>

Proposed Local Cost Distributions for Green/Duwamish  
Ecosystem Restoration Feasibility Study

Attachment D

Local Cost Share Required<sup>1</sup>:

\$300,000

10512

JURISDICTION	PROPOSED COST ALLOCATION <sup>2</sup>	ALLOCATION FACTORS <sup>3</sup>			
		% Watershed Area	% Watershed Population	% Watershed Assessed Value	% Watershed Impervious Surface
Algona	\$600	0.06%	0.21%	0.24%	0.29%
Auburn	\$18,885	2.51%	7.62%	6.35%	8.70%
Black Diamond	\$1,650	0.74%	0.45%	0.32%	0.69%
Covington	\$5,445	1.32%	1.32%	1.32%	3.30%
Des Moines	\$210	0.02%	0.11%	0.07%	0.08%
Enumclaw	\$3,255	0.48%	1.54%	1.09%	1.23%
Federal Way	\$1,838	0.18%	0.93%	0.71%	0.63%
Kent	\$32,565	3.83%	11.00%	13.10%	15.49%
King County	\$139,009.50	81.29%	38.62%	26.62%	38.82%
Maple Valley	\$3,363	1.18%	1.18%	0.94%	1.18%
Renton	\$11,963	1.23%	4.81%	5.25%	4.66%
SeaTac	\$8,453	0.75%	3.36%	4.40%	2.76%
Seattle	\$55,883	4.57%	24.77%	31.43%	13.74%
Tukwila	\$16,898	1.85%	4.08%	8.16%	8.44%
<b>Totals<sup>4</sup>:</b>	<b>\$300,015</b>	<b>100.01%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.01%</b>

NOTES:

- 1) Costs are for cash share only. Requirements for in-kind match will be met through project coordination and local government design and permitting work. More than 70% of in-kind share is expected to be borne by King County. Participants will pay 60% of cash contributions in 1998 and 40% in 1999.
- 2) Proposed cost allocation = \$300,000 multiplied by the average of the 4 allocation factors for the jurisdiction. Cost estimates are based on full participation by all jurisdictions; actual costs may be different.
- 3) Area, population and assessed value data is from RNA research in 1994; it does not include effects of annexations and incorporations. Impervious surface data is from 1992, but is based on current jurisdictional boundaries.
- 4) Totals greater than 100% or \$300,000 are due to rounding.