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AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
CLALLAM COUNTY
FOR THE
DUNGENESS RIVER
ECOSYSTEM RESTORATION PROJECT

THIS AGREEMENT is entered into this 4th day of April, 2011, by and between the **DEPARTMENT OF THE ARMY** (hereinafter the "Government"), represented by the DISTRICT ENGINEER, **U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT** and **CLALLAM COUNTY** (hereinafter the "Non-Federal Sponsor"), represented by its **PLANNING MANAGER**.

WITNESSETH, THAT:

WHEREAS, the Government received a letter, dated June 25, 2007, from the Non-Federal Sponsor in which it stated its desire to participate in a feasibility study for ecosystem restoration at the Dungeness River in Clallam County, Washington, and in which it acknowledged its financial responsibilities for the study and a project, if one is recommended;

WHEREAS, Section 544 of the Water Resources Development Act of 2000, Public Law 106-541 (hereinafter "Section 544"), provides that $40,000,000 in Federal funds are authorized to be appropriated to carry out critical restoration projects in the area of Puget Sound, Washington and adjacent waters of which not more than $5,000,000 may be used to carry out any one critical restoration project;

WHEREAS, the Government initiated a feasibility study, to be initially Federally funded up to $100,000, and during this Federally funded portion the Government determined that the costs of the feasibility study would exceed $100,000;

WHEREAS, the Government and the Non-Federal Sponsor desire to enter into an agreement (hereinafter the "Agreement") to complete the feasibility study (hereinafter the "*Study*" as defined in Article I.A. of this Agreement) and to share equally the costs of the *Study* that exceed $100,000;

WHEREAS, Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2215(a)), specifies the cost-sharing requirements applicable to the *Study*;

WHEREAS, the Non-Federal Sponsor desires to provide in-kind contributions (hereinafter the "*non-Federal in-kind contributions*" as defined in Article I.I. of this Agreement) that are necessary to prepare the feasibility report and to receive credit for such contributions

toward the amount of its required contribution for the *Study*;

WHEREAS, the Non-Federal Sponsor may provide up to 100 percent of its required contribution for the *Study* as *non-Federal in-kind contributions*;

WHEREAS, the Government and Non-Federal Sponsor have the full authority and capability to perform as hereinafter set forth and intend to cooperate in cost-sharing and financing of the *Study* in accordance with the terms of this Agreement; and

WHEREAS, the Government and the Non-Federal Sponsor, in connection with this Agreement, desire to foster a partnering strategy and a working relationship between the Government and the Non-Federal Sponsor through a mutually developed formal strategy of commitment and communication embodied herein, which creates an environment where trust and teamwork prevent disputes, foster a cooperative bond between the Government and the Non-Federal Sponsor, and facilitate the successful *Study*.

NOW, THEREFORE, the Government and the Non-Federal Sponsor agree as follows:

ARTICLE I – DEFINITIONS

A. The term "*Study*" shall mean the activities and tasks required to identify and evaluate alternatives and the preparation of a decision document that, when appropriate, recommends a coordinated and implementable solution for ecosystem restoration at the Dungeness River, Clallam County, Washington. The term includes the *non-Federal in-kind contributions* described in paragraph I. of this Article.

B. The term "*total study costs*" shall mean the sum of all costs incurred by the Non-Federal Sponsor and the Government in accordance with the terms of this Agreement directly related to performance of the *Study* plus the costs of the *Study* incurred by the Government prior to the effective date of this Agreement. Subject to the provisions of this Agreement, the term shall include, but is not necessarily limited to: the Government's costs of plan formulation and evaluation, including applicable economic, engineering, real estate, and environmental analyses; the Government's costs of preparation of the decision document for the *Study*; the costs of the *non-Federal in-kind contributions* determined in accordance with Article II.B.3. of this Agreement; the Government's costs of independent technical review and other review processes required by the Government; the Government's supervision and administration costs; the Non-Federal Sponsor's and the Government's costs of participation in the Study Coordination Team in accordance with Article III of this Agreement; the Government's costs of contract dispute settlements or awards; and the Non-Federal Sponsor's and the Government's costs of audit in accordance with Article VI.B. and Article VI.C. of this Agreement. The term does not include the first $100,000 incurred by the Government for the *Study*; any costs of dispute resolution under Article V of this Agreement; any costs incurred as part of reconnaissance studies or feasibility

studies under any other agreement or program; the Non-Federal Sponsor's costs of negotiating this Agreement; or any costs of negotiating a project cooperation agreement for design and construction of a project or separable element thereof.

C. The term "*period of study*" shall mean the time from the effective date of this Agreement to the date that the decision document for the study is duly approved by the Government or the date that this Agreement is terminated in accordance with Article IX of this Agreement.

D. The term "*financial obligations for the study*" shall mean the financial obligations of the Government and the costs for the *non-Federal in-kind contributions*, as determined by the Government, that result or would result in costs that are or would be included in *total study costs*.

E. The term "*non-Federal proportionate share*" shall mean the ratio of the sum of the costs included in *total study costs* for the *non-Federal in-kind contributions*, as determined by the Government, and the Non-Federal Sponsor's contribution of funds required by Article II.B.1.b. of this Agreement to *financial obligations for the study*, as projected by the Government.

F. The term "*Federal program funds*" shall mean funds provided by a Federal agency, other than the Department of the Army, plus any non-Federal contribution required as a matching share therefor.

G. The term "*fiscal year*" shall mean one year beginning on October 1 and ending on September 30.

H. The term "*PMP*" shall mean the project management plan, and any modifications thereto, developed by the Government, and agreed to by the Non-Federal Sponsor, that specifies the scope, cost, and schedule for *Study* activities and guides the performance of the *Study* through the *period of study*.

I. The term "*non-Federal in-kind contributions*" shall mean planning, supervision and administration, services, materials, supplies, and other in-kind services that are performed or provided by the Non-Federal Sponsor after the effective date of this Agreement in accordance with the *PMP* and that are necessary for performance of the *Study*.

J. The term "*Section 544 Program Limit*" shall mean the amount of Federal funds authorized to be appropriated for all projects implemented pursuant to Section 544 of the Water Resources Development Act of 2000, Public Law 106-541. As of the effective date of this Agreement, such amount is $40,000,000.

K. The term "*fiscal year of the Non-Federal Sponsor*" shall mean one year beginning on January 1 and ending on December 31.

ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND

THE NON-FEDERAL SPONSOR

A. The Government, subject to receiving funds appropriated by the Congress of the United States (hereinafter the "Congress") and using those funds and funds provided by the Non-Federal Sponsor, expeditiously shall conduct the *Study*, applying those procedures usually applied to Federal projects, in accordance with Federal laws, regulations, and policies. The Non-Federal Sponsor expeditiously shall perform or provide the *non-Federal in-kind contributions* in accordance with applicable Federal laws, regulations, and policies.

1. The Government shall not issue the solicitation for the first contract for the *Study* or commence the *Study* using the Government's own forces until the Non-Federal Sponsor has confirmed in writing its willingness to proceed with the *Study*.

2. To the extent possible, the Government and the Non-Federal Sponsor shall conduct the *Study* in accordance with the *PMP*.

3. The Government shall afford the Non-Federal Sponsor the opportunity to review and comment on all products that are developed by contract or by Government personnel during the *period of study*. The Government shall consider in good faith the comments of the Non-Federal Sponsor, but the final approval of all *Study* products shall be exclusively within the control of the Government.

4. The Government shall afford the Non-Federal Sponsor the opportunity to review and comment on the solicitations for all Government contracts, including relevant scopes of work, prior to the Government's issuance of such solicitations. To the extent possible, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on all proposed contract modifications, including change orders. In any instance where providing the Non-Federal Sponsor with notification of a contract modification is not possible prior to execution of the contract modification, the Government shall provide such notification in writing at the earliest date possible. To the extent possible, the Government also shall afford the Non-Federal Sponsor the opportunity to review and comment on all contract claims prior to resolution thereof. The Government shall consider in good faith the comments of the Non-Federal Sponsor, but the contents of solicitations, award of contracts or commencement of work on the *Study* using the Government's own forces, execution of contract modifications, resolution of contract claims, and performance of all work on the *Study*, except for the *non-Federal in-kind contributions*, shall be exclusively within the control of the Government.

5. At the time the District Engineer, U.S. Army Corps of Engineers, Seattle District (hereinafter the "District Engineer") furnishes the contractor with the Government's Written Notice of Acceptance of Completed Work for each contract awarded by the Government for the *Study*, the District Engineer shall furnish a copy thereof to the Non-Federal Sponsor.

6. The Non-Federal Sponsor shall afford the Government the opportunity to review and comment on the solicitations for all contracts for the *non-Federal in-kind*

contributions, including relevant scopes of work, prior to the Non-Federal Sponsor's issuance of such solicitations. To the extent possible, the Non-Federal Sponsor shall afford the Government the opportunity to review and comment on all proposed contract modifications, including change orders. In any instance where providing the Government with notification of a contract modification is not possible prior to execution of the contract modification, the Non-Federal Sponsor shall provide such notification in writing at the earliest date possible. To the extent possible, the Non-Federal Sponsor also shall afford the Government the opportunity to review and comment on all contract claims prior to resolution thereof. The Non-Federal Sponsor shall consider in good faith the comments of the Government but the contents of solicitations, award of contracts or commencement of work on the *Study* using the Non-Federal Sponsor's own forces, execution of contract modifications, resolution of contract claims, and performance of all work on the *non-Federal in-kind contributions* shall be exclusively within the control of the Non-Federal Sponsor.

7. At the time the Non-Federal Sponsor furnishes a contractor with a notice of acceptance of completed work for each contract awarded by the Non-Federal Sponsor for the *non-Federal in-kind contributions*, the Non-Federal Sponsor shall furnish a copy thereof to the Government.

B. The Non-Federal Sponsor shall contribute 50 percent of *total study costs* in accordance with the provisions of this paragraph.

1. The Non-Federal Sponsor shall provide a contribution of funds as determined below:

a. If the Government projects at any time that the collective value of the Non-Federal Sponsor's contributions listed in the next sentence will be less than the Non-Federal Sponsor's required share of 50 percent of *total study costs*, the Government shall determine the amount of funds that would be necessary to meet the Non-Federal Sponsor's required share without considering the credit the Government projects will be afforded for the *non-Federal in-kind contributions* pursuant to paragraph B.4. of this Article. The Government shall determine the amount of funds that would be necessary by subtracting from the Non-Federal Sponsor's required share of 50 percent of *total study costs* the collective value of the Non-Federal Sponsor's contributions under Article III and Article VI of this Agreement.

b. The Non-Federal Sponsor shall provide funds in the amount determined by this paragraph in accordance with Article IV.B. of this Agreement. To determine the contribution of funds the Non-Federal Sponsor shall provide, the Government shall reduce the amount determined in accordance with paragraph B.1.a. of this Article by the amount of credit the Government projects will be afforded for the *non-Federal in-kind contributions* pursuant to paragraph B.4. of this Article.

2. The Government, subject to the availability of funds and as limited by paragraph

B.5. of this Article and the *Section 544 Program Limit*], shall refund or reimburse to the Non-Federal Sponsor any contributions in excess of 50 percent of *total study costs* if the Government determines at any time that the collective value of the following has exceeded 50 percent of *total study costs*: (a) the Non-Federal Sponsor's contribution of funds required by paragraph B.1.b. of this Article; (b) the amount of credit to be afforded for the *non-Federal in-kind contributions* pursuant to paragraph B.4. of this Article; and (c) the value of the Non-Federal Sponsor's contributions under Article III and Article VI of this Agreement.

3. The Government shall determine and include in *total study costs* any costs incurred by the Non-Federal Sponsor for *non-Federal in-kind contributions*, subject to the conditions and limitations of this paragraph. The Non-Federal Sponsor in a timely manner shall provide the Government with such documents as are sufficient to enable the Government to determine the amount of costs to be included in *total study costs* for *non-Federal in-kind contributions*.

a. Acceptance by the Government of *non-Federal in-kind contributions* shall be subject to a review by the Government to verify that all economic, engineering, real estate, and environmental analyses or other items performed or provided as *non-Federal in-kind contributions* are accomplished in a satisfactory manner and in accordance with applicable Federal laws, regulations, and policies, and to verify that all analyses, services, materials, supplies, and other in-kind services provided as *non-Federal in-kind contributions* are necessary for the *Study*.

b. The Non-Federal Sponsor's costs for *non-Federal in-kind contributions* that may be eligible for inclusion in *total study costs* pursuant to this Agreement shall be subject to an audit in accordance with Article VI.C. of this Agreement to determine the reasonableness, allocability, and allowability of such costs.

c. The Non-Federal Sponsor's costs for *non-Federal in-kind contributions* that may be eligible for inclusion in *total study costs* pursuant to this Agreement are not subject to interest charges, nor are they subject to adjustment to reflect changes in price levels between the time the *non-Federal in-kind contributions* are provided and the time the costs are included in *total study costs*.

d. The Government shall not include in *total study costs* any costs for *non-Federal in-kind contributions* paid by the Non-Federal Sponsor using *Federal program funds* unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is expressly authorized by Federal law.

e. The Government shall not include in *total study costs* any costs for *non-Federal in-kind contributions* in excess of the Government's estimate of the costs of the *non-Federal in-kind contributions* if the services, materials, supplies, and other in-kind services had been provided by the Government.

4. The Government, in accordance with this paragraph, shall afford credit toward the amount of funds determined in accordance with paragraph B.1.a. of this Article for the costs of the *non-Federal in-kind contributions* determined in accordance with paragraph B.3. of this Article. However, the maximum amount of credit that can be afforded for the *non-Federal in-kind contributions* shall not exceed the least of the following amounts as determined by the Government: the amount of funds determined in accordance with paragraph B.1.a. of this Article; the costs of the *non-Federal in-kind contributions* determined in accordance with paragraph B.3. of this Article; or 50 percent of *total study costs*.

5. Notwithstanding any other provision of this Agreement, the Non-Federal Sponsor shall not be entitled to reimbursement of any costs of *non-Federal in-kind contributions* determined in accordance with paragraph B.3. of this Article and included in *total study costs* that exceed the amount of credit afforded for the *non-Federal in-kind contributions* determined in accordance with paragraph B.4. of this Article and the Non-Federal Sponsor shall be responsible for 100 percent of all costs of *non-Federal in-kind contributions* included in *total study costs* that exceed the amount of credit afforded.

C. Notwithstanding any other provision of this Agreement, Federal financial participation in the *Study* is limited by the following provisions of this paragraph.

1. In the event the Government projects that the amount of Federal funds the Government will make available to the *Study* through the then-current *fiscal year*, or the amount of Federal funds the Government will make available for the *Study* through the upcoming *fiscal year*, is not sufficient to meet the Federal share of *total study costs* that the Government projects to be incurred through the then-current or upcoming *fiscal year*, as applicable, the Government shall notify the Non-Federal Sponsor in writing of such insufficiency of funds and of the date the Government projects that the Federal funds that will have been made available to the *Study* will be exhausted. Upon the exhaustion of Federal funds made available by the Government to the *Study*, future performance under this Agreement shall be suspended and the parties shall proceed in accordance with Article IX.C. of this Agreement.

2. If the Government determines that the total amount of Federal funds provided by Congress for all studies and projects implemented pursuant to Section 544 has reached the *Section 544 Program Limit*, and the Government projects that the Federal funds the Government will make available to the *Study* within the *Section 544 Program Limit* will not be sufficient to meet the Federal share of *total study costs*, the Government shall notify the Non-Federal Sponsor in writing of such insufficiency of funds and of the date the Government projects that the Federal funds that will have been made available to the *Study* will be exhausted. Upon the exhaustion of Federal funds made available by the Government to the *Study* within the *Section 544 Program Limit*, the parties shall terminate this Agreement and proceed in accordance with Article IX.E. of this Agreement.

3. As of the effective date of this Agreement, **$6,307,000** of Federal funds have been provided by Congress for the Section 544 Program of which $335,000 is currently projected to be available for the *Study*. The Government makes no commitment to request Congress to provide additional Federal funds for the Section 544 Program or the *Study*. Further, the Government's financial participation in the *Study* is limited to the Federal funds that the Government makes available to the *Study*.

D. Upon conclusion of the *period of study*, the Government shall conduct an accounting, in accordance with Article IV.C. of this Agreement, and furnish the results to the Non-Federal Sponsor.

E. The Non-Federal Sponsor shall not use *Federal program funds* to meet any of its obligations for the *Study* under this Agreement unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is expressly authorized by Federal law.

F. This Agreement shall not be construed as obligating either party to implement a project. Whether the Government proceeds with implementation of the project depends upon, among other things, the outcome of the *Study* and whether the proposed solution is consistent with the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies and with the budget priorities of the Administration.

ARTICLE III - STUDY COORDINATION TEAM

A. To provide for consistent and effective communication, the Non-Federal Sponsor and the Government, not later than 30 calendar days after the effective date of this Agreement, shall appoint named senior representatives to a Study Coordination Team. Thereafter, the Study Coordination Team shall meet regularly until the end of the *period of study*. The Government's Project Manager and a counterpart named by the Non-Federal Sponsor shall co-chair the Study Coordination Team.

B. The Government's Project Manager and the Non-Federal Sponsor's counterpart shall keep the Study Coordination Team informed of the progress of the *Study* and of significant pending issues and actions, and shall seek the views of the Study Coordination Team on matters that the Study Coordination Team generally oversees.

C. Until the end of the *period of study*, the Study Coordination Team shall generally oversee the *Study*, including matters related to: plan formulation and evaluation, including applicable economic, engineering, real estate, and environmental analyses; scheduling of reports and work products; independent technical review and other review processes required by the Government; completion of all necessary environmental coordination and documentation; contract awards and modifications; contract costs; the Government's cost projections; the performance of and scheduling for the *non-Federal in-kind contributions*; determination of anticipated future

requirements for real property and relocation requirements and performance of operation, maintenance, repair, rehabilitation, and replacement of the proposed project including anticipated requirements for permits; and other matters related to the *Study*. This oversight of the *Study* shall be consistent with the *PMP*.

D. The Study Coordination Team may make recommendations to the District Engineer on matters related to the *Study* that the Study Coordination Team generally oversees, including suggestions to avoid potential sources of dispute. The Government in good faith shall consider the recommendations of the Study Coordination Team. The Government, having the legal authority and responsibility for performance of the *Study* except for the *non-Federal in-kind contributions*, has the discretion to accept or reject, in whole or in part, the Study Coordination Team's recommendations. On matters related to the *non-Federal in-kind contributions*, that the Study Coordination Team generally oversees, the Study Coordination Team may make recommendations to the Non-Federal Sponsor including suggestions to avoid potential sources of dispute. The Non-Federal Sponsor in good faith shall consider the recommendations of the Study Coordination Team. The Non-Federal Sponsor, having the legal authority and responsibility for the *non-Federal in-kind contributions*, has the discretion to accept or reject, in whole or in part, the Study Coordination Team's recommendations except as otherwise required by the provisions of this Agreement, including compliance with applicable Federal, State, or local laws or regulations.

E. The Non-Federal Sponsor's costs of participation in the Study Coordination Team shall be included in *total study costs* and shared in accordance with the provisions of this Agreement, subject to an audit in accordance with Article VI.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs. The Government's costs of participation in the Study Coordination Team shall be included in *total study costs* and shared in accordance with the provisions of this Agreement.

ARTICLE IV - METHOD OF PAYMENT

A. In accordance with the provisions of this paragraph, the Government shall maintain current records and provide to the Non-Federal Sponsor current projections of costs, financial obligations, the contributions provided by the parties, the costs included in *total study costs* for the *non-Federal in-kind contributions* determined in accordance with Article II.B.3. of this Agreement, and the credit to be afforded for the *non-Federal in-kind contributions* pursuant to Article II.B.4. of this Agreement.

1. As of the effective date of this Agreement, *total study costs* are projected to be $670,000; the value of the Non-Federal Sponsor's contributions under Article III and Article VI of this Agreement is projected to be $335,000; the amount of funds determined in accordance with Article II.B.1.a. of this Agreement is projected to be $335,000; the costs included in *total study costs* for the *non-Federal in-kind contributions* determined in accordance with Article II.B.3. of this Agreement are projected to be $0.00; the credit to be afforded for the

non-Federal in-kind contributions pursuant to Article II.B.4. of this Agreement is projected to be $0.00; the Non-Federal Sponsor's contribution of funds required by Article II.B.1.b. of this Agreement is projected to be $335,000; and the *non-Federal proportionate share* is projected to be 50 percent. These amounts and percentage are estimates subject to adjustment by the Government, after consultation with the Non-Federal Sponsor, and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

2. By April 15, 2011 and by each quarterly anniversary thereof until the conclusion of the *period of study* and resolution of all relevant claims and appeals, the Government shall provide the Non-Federal Sponsor with a report setting forth all contributions provided to date and the current projections of the following: *total study costs*; the value of the Non-Federal Sponsor's contributions under Article III and Article VI of this Agreement; the amount of funds determined in accordance with Article II.B.1.a. of this Agreement; the costs included in *total study costs* for the *non-Federal in-kind contributions* determined in accordance with Article II.B.3. of this Agreement; the credit to be afforded for the *non-Federal in-kind contributions* pursuant to Article II.B.4. of this Agreement; the Non-Federal Sponsor's contribution of funds required by Article II.B.1.b. of this Agreement; and the *non-Federal proportionate share*.

B. The Non-Federal Sponsor shall provide the contribution of funds required by Article II.B.1.b. of this Agreement in accordance with the provisions of this paragraph.

1. Not less than 30 calendar days prior to the scheduled date for issuance of the solicitation for the first contract for work on the *Study* or commencement of work on the *Study* using the Government's own forces, the Government shall notify the Non-Federal Sponsor in writing of such scheduled date and the funds the Government determines to be required from the Non-Federal Sponsor to meet: (a) the *non-Federal proportionate share* of *financial obligations for the study* incurred prior to the commencement of the *period of study*; (b) the projected *non-Federal proportionate share* of *financial obligations for the study* to be incurred for such contract; and (c) the projected *non-Federal proportionate share* of *financial obligations for the study* using the Government's own forces through the first quarter. Not later than such scheduled date, the Non-Federal Sponsor shall provide the Government with the full amount of such required funds by delivering a check payable to "FAO, USAED, Seattle District" to the District Engineer, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited such required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or by presenting the Government with an irrevocable letter of credit acceptable to the Government for such required funds, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

2. Thereafter, until the work on the *Study* is complete, the Government shall notify the Non-Federal Sponsor in writing of the funds the Government determines to be required from the Non-Federal Sponsor, and the Non-Federal Sponsor shall provide such funds in

accordance with the provisions of this paragraph.

a. The Government shall notify the Non-Federal Sponsor in writing, no later than 60 calendar days prior to the scheduled date for issuance of the solicitation for each remaining contract for work on the *Study*, of the funds the Government determines to be required from the Non-Federal Sponsor to meet the projected *non-Federal proportionate share* of *financial obligations for the study* to be incurred for such contract. No later than such scheduled date, the Non-Federal Sponsor shall make the full amount of such required funds available to the Government through any of the payment mechanisms specified in paragraph B.1. of this Article.

b. The Government shall notify the Non-Federal Sponsor in writing, no later than 60 calendar days prior to the beginning of each quarter in which the Government projects that it will make *financial obligations for the study* using the Government's own forces, of the funds the Government determines to be required from the Non-Federal Sponsor to meet the projected *non-Federal proportionate share* of *financial obligations for the study* using the Government's own forces for that quarter. No later than 30 calendar days prior to the beginning of that quarter, the Non-Federal Sponsor shall make the full amount of such required funds for that quarter available to the Government through any of the payment mechanisms specified in paragraph B.1. of this Article.

3. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary, when considered with any credit the Government projects will be afforded for the *non-Federal in-kind contributions* pursuant to Article II.B.4. of this Agreement, to cover: (a) the *non-Federal proportionate share* of *financial obligations for the study* incurred prior to the commencement of the *period of study*; and (b) the *non-Federal proportionate share* of *financial obligations for the study* as *financial obligations for the study* are incurred. If at any time the Government determines that additional funds will be needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's share of such financial obligations for the current contract or to cover the Non-Federal Sponsor's share of such financial obligations for work performed using the Government's own forces in the current quarter, the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 30 calendar days from receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional required funds through any of the payment mechanisms specified in paragraph B.1. of this Article.

C. Upon conclusion of the *period of study* and resolution of all relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with written notice of the results of such final accounting. If outstanding relevant claims and appeals prevent a final accounting from being conducted in a timely manner, the Government shall conduct an interim accounting and furnish the Non-Federal Sponsor with written notice of the results of such interim accounting. Once all outstanding relevant claims and appeals are resolved, the Government shall amend the interim accounting to complete the final accounting and furnish the Non-Federal Sponsor with written notice of the results of such final accounting.

The interim or final accounting, as applicable, shall determine *total study costs*, each party's required share thereof, and each party's total contributions thereto as of the date of such accounting.

1. Should the interim or final accounting, as applicable, show that the Non-Federal Sponsor's total required share of *total study costs* exceeds the Non-Federal Sponsor's total contributions provided thereto, the Non-Federal Sponsor, no later than 90 calendar days after receipt of written notice from the Government, shall make a payment to the Government in an amount equal to the difference by delivering a check payable to "FAO, USAED, Seattle District to the District Engineer or by providing an Electronic Funds Transfer in accordance with procedures established by the Government.

2. Should the interim or final accounting, as applicable, show that the total contributions provided by the Non-Federal Sponsor for *total study costs* exceed the Non-Federal Sponsor's total required share thereof, the Government, subject to the availability of funds and as limited by Article II.B.5. of this Agreement and the *Section 544 Program Limit*, shall refund or reimburse the excess amount to the Non-Federal Sponsor within 90 calendar days of the date of completion of such accounting. In the event the Non-Federal Sponsor is due a refund or reimbursement and funds are not available to refund or reimburse the excess amount to the Non-Federal Sponsor, the Government shall seek such appropriations as are necessary to make the refund or reimbursement.

ARTICLE V - DISPUTE RESOLUTION

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. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

ARTICLE VI - MAINTENANCE OF RECORDS AND AUDIT

A. Not later than 60 calendar days after the effective date of this Agreement, the Government and the Non-Federal Sponsor shall develop procedures for keeping books, records, documents, or other evidence pertaining to costs and expenses incurred pursuant to this Agreement. 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 Non-Federal Sponsor shall maintain such books, records, documents, or other evidence in accordance with these procedures and for a minimum of three years after completion of

the accounting for which such books, records, documents, or other evidence were required. To the extent permitted under applicable Federal laws and regulations, the Government and the Non-Federal Sponsor shall each allow the other to inspect such books, records, documents, or other evidence.

B. In accordance with 32 C.F.R. Section 33.26, the Non-Federal Sponsor is responsible for complying with the Single Audit Act Amendments of 1996 (31 U.S.C. 7501-7507), as implemented by OMB Circular No. A-133 and Department of Defense Directive 7600.10. Upon request of the Non-Federal Sponsor and to the extent permitted under applicable Federal laws and regulations, the Government shall provide to the Non-Federal Sponsor and independent auditors any information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of any non-Federal audits performed in accordance with this paragraph shall be allocated in accordance with the provisions of OMB Circulars A-87 and A-133, and such costs as are allocated to the *Study* shall be included in *total study costs* and shared in accordance with the provisions of this Agreement.

C. In accordance with 31 U.S.C. 7503, the Government may conduct audits in addition to any audit that the Non-Federal Sponsor is required to conduct under the Single Audit Act Amendments of 1996. Any such Government audits shall be conducted in accordance 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 performed in accordance with this paragraph shall be included in *total study costs* and shared in accordance with the provisions of this Agreement.

ARTICLE VII - FEDERAL AND STATE LAWS

In the exercise of their respective rights and obligations under this Agreement, the Non-Federal Sponsor and the Government shall comply with all applicable Federal and State laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto and Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army".

ARTICLE VIII - RELATIONSHIP OF PARTIES

A. In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other.

B. In the exercise of its rights and obligations under this Agreement, neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights the other party may have to seek relief or redress against that contractor either

pursuant to any cause of action that the other party may have or for violation of any law.

ARTICLE IX - TERMINATION OR SUSPENSION

A. Prior to conclusion of the *period of study*, upon 30 calendar days written notice to the other party, either party may elect without penalty to terminate this Agreement or to suspend future performance under this Agreement. In the event that either party elects to suspend future performance under this Agreement pursuant to this paragraph, such suspension shall remain in effect until either the Government or the Non-Federal Sponsor elects to terminate this Agreement.

B. If at any time the Non-Federal Sponsor fails to fulfill its obligations under this Agreement, the Assistant Secretary of the Army (Civil Works) shall terminate this Agreement or suspend future performance under this Agreement unless he determines that continuation of performance of the *Study* is in the interest of the United States or is necessary in order to satisfy agreements with any other non-Federal interests in connection with the *Study*.

C. In the event future performance under this Agreement is suspended pursuant to Article II.C.1. of this Agreement, such suspension shall remain in effect until such time that the Government notifies the Non-Federal Sponsor in writing that sufficient Federal funds are available to meet the Federal share of *total study costs* the Government projects to be incurred through the then-current or upcoming *fiscal year*, or the Government or the Non-Federal Sponsor elects to terminate this Agreement.

D. In the event that one or more of the Non-Federal Sponsors elects to terminate its responsibilities under this Agreement, and the remaining Non-Federal Sponsor(s) elects to continue to participate in the *Study*, the Government shall negotiate in good faith with the remaining Non-Federal Sponsor(s) to effect a timely and productive conclusion to that portion of the *Study* pertaining to the area of statutory authority applicable for the remaining Non-Federal Sponsor(s). The Government shall prepare a revised *PMP* and revised estimate of *total study costs* to complete that portion of the *Study* of interest to the remaining Non-Federal Sponsor(s). If the remaining Non-Federal Sponsor(s) elects to complete the *Study*, this Agreement shall be amended to reflect the negotiated revisions to the scope of the *Study* defined in Article I.A. of this Agreement and the estimate of *total study costs* in Article IV.A.1. of this Agreement. Amendments to this Agreement made pursuant to this paragraph shall reflect credits for the contribution of funds and *non-Federal in-kind contributions* provided previously by all of the *Study* sponsors and shall reflect task reductions made as a result of withdrawal of any *Study* sponsor.

E. In the event that this Agreement is terminated pursuant to this Article, the parties shall conclude their activities relating to the *Study* and conduct an accounting in accordance with Article IV.C. of this Agreement. To provide for this eventuality, the Government may reserve a percentage of total Federal funds made available for the *Study* and an equal percentage of the

total funds contributed by the Non-Federal Sponsor in accordance with Article II.B.1.b. of this Agreement as a contingency to pay costs of termination, including any costs of resolution of contract claims and contract modifications. Upon termination of this Agreement, all data and information generated as part of the *Study* shall be made available to the parties to the Agreement.

F. Any termination of this Agreement or suspension of future performance under this Agreement in accordance with this Article shall not relieve the parties of liability for any obligation previously incurred. Any delinquent payment owed by the Non-Federal Sponsor shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13 week Treasury bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3 month period if the period of delinquency exceeds 3 months.

ARTICLE X - NOTICES

A. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or sent by telegram or mailed by first-class, registered, or certified mail, as follows:

If to the Non-Federal Sponsor:

Clallam County Planning Manager
c/o Steve Gray
223 East 4th Street, Suite 5
Port Angeles, WA 98362-3015

If to the Government:

Chief, Civil Programs and projects Branch
Seattle District, Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-3755

B. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

C. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at the earlier of such time as it is actually received or seven calendar days after it is mailed.

ARTICLE XI - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE XII - THIRD PARTY RIGHTS, BENEFITS, OR LIABILITIES

Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY

BY: _____
Anthony O. Wright
Colonel, Corps of Engineers
District Commander

DATE: 4 APRIL 2011

CLALLAM COUNTY, WASHINGTON

BY: _____
Howard V. Doherty, Jr., Chair
Board of Clallam County Commissioners

DATE: March 15, 2011

Approved as to form only by:

_____
Douglas E. Jensen
Chief Civil Deputy Prosecuting Attorney
Clallam County

CERTIFICATE OF AUTHORITY

I, Deborah Kelly, do hereby certify that I am the principal legal officer of **Clallam County**, that **Clallam County** is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the **Department of the Army** and **Clallam County** in connection with the feasibility study for the **Dungeness River Ecosystem Restoration Project**, and to pay damages, if necessary, in the event of the failure to perform in accordance with the terms of this Agreement and that the persons who have executed this Agreement on behalf of **Clallam County** have acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this 7th day of March 20 11.

CLALLAM COUNTY, WASHINGTON

Deborah Kelly
Clallam County Prosecuting Attorney

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

CLALLAM COUNTY, WASHINGTON

Steve Gray
Planning Manager

DATE: 2/2/11

(3d)
3/15/11

NON-FEDERAL SPONSOR'S
SELF-CERTIFICATION OF FINANCIAL CAPABILITY
FOR AGREEMENTS

I, Howard V. Doherty, Jr., do hereby certify that I am the Chair of the Clallam County Board of Commissioners; that I am aware of the financial obligations of the Non-Federal Sponsor for the Dungeness River Ecosystem Restoration Project; and that the Non-Federal Sponsor has the financial capability to satisfy the Non-Federal Sponsor's obligations under the Feasibility Cost Share Agreement for the Dungeness River Ecosystem Restoration Project.

IN WITNESS WHEREOF, I have made and executed this certification this 15th day of March, 2011.

BY: _____
Howard V. Doherty, Jr.

TITLE: Clallam County Board of Commissioners Chair

DATE: March 15, 2011

DUNGENESS RIVER ECOSYSTEM RESTORATION
PUGET SOUND AND ADJACENT WATERS, SECTION 544

PROJECT MANAGEMENT PLAN

***Prepared By*:**

U.S. Army Corps of Engineers

Seattle District

***In Coordination With*:**

Clallam County

January 26, 2010

US Army Corps
of Engineers
Seattle District

Project Management Plan
Dungeness River Ecosystem Restoration
Puget Sound and Adjacent Waters, Section 544
Last Updated on: February 2, 2011

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FIGURES

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I. PROJECT OVERVIEW

Name:

Dungeness River Ecosystem Restoration
Project Number: 325138

Location

The Dungeness River Ecosystem Restoration Project is located between river miles 1 and 2 along the Dungeness River and approximately 1 mile from its outlet at Dungeness Bay on the Strait of Juan de Fuca, near Dungeness, Washington.

Sponsor:

Clallam County

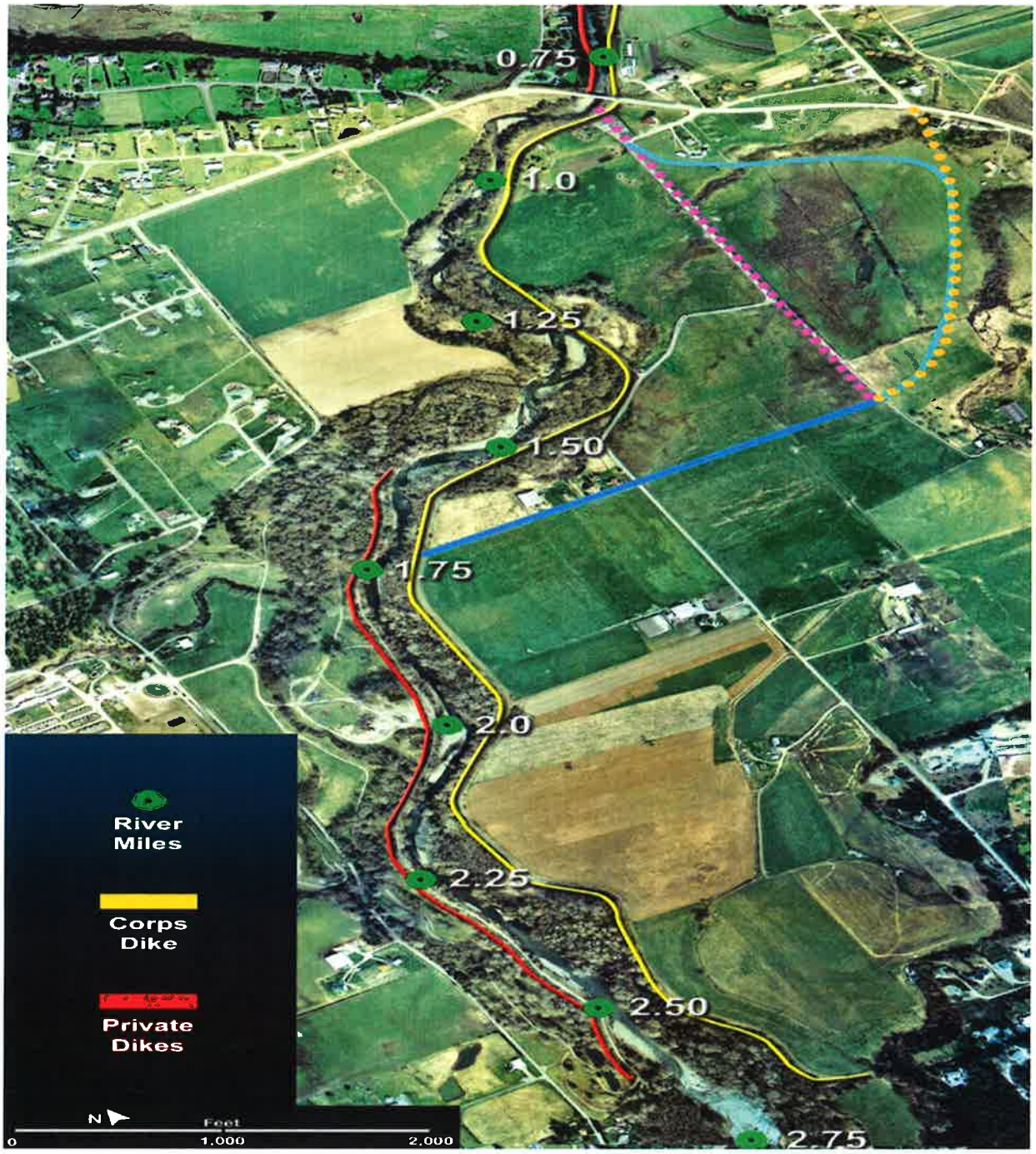
Authority:

This project is proposed under the authority of Section 544 of the Puget Sound and Adjacent Waters Restoration Program (PSAWR). It was authorized in the Water Resource Development Act of 2000 (WRDA 2000). A total of 5 million dollars of federal funds may be expended on any one project. Total program funds authorized are 40 million.

Project Overview:

Today, like most of the lower Dungeness River floodplain, the proposed restoration site is bounded by levees and stripped of its native vegetation. This project will evaluate alternatives to set a federal Corps levee back in the floodplain to restore the river's floodplain and natural processes to historic conditions. It is expected that 100-150 acres of fallow pasturelands will be restored to historic floodplain conditions. Restoration of the lower Dungeness floodplain will also create more off-channel salmon spawning habitat, thereby promoting greater salmon productivity. An aerial photograph of the project location can found in Figure 1 below. Proposed levee setback options are highlighted in purple and blue. These setback sites occur on the right bank of the river between river miles .9 and 1.75.

Figure 1: Dungeness River Project Location



Project Background:

The Dungeness River Restoration Project is a partnership of county, state, tribal and federal agencies aimed at restoring a critical floodplain. The site is former pasturelands on the Dungeness River floodplain that is cutoff by levees from the natural influences of the river.

Over recent years, Clallam County has worked closely with the Dungeness River Management Team (DRMT) to preserve and enhance the physical and biological health of the Dungeness River Watershed. The group is overseen by a planning team composed of the fish biologists and planners from Clallam County and the Jamestown S'Klallam tribes and includes representatives from the Washington Department of Fish and Wildlife (WDFW), sport fisheries, local citizen groups and property owners.

In 1997, the Dungeness River Management Team organized a preliminary Dungeness River restoration plan that recommended reconnecting the floodplain and abating constrictions caused by dikes on the lower 2.6 miles to restore salmon habitat and create a meandering channel that supports sediment transport. This plan identified the project location as having the highest potential for restoration along this stretch of river because of its historic flow, size, proximity to the outflow, and flood condition improvement.

In 1998, Clallam County requested Section 1135 funding from the Corps, but the request was denied because it was determined that in order for the project to have long-term success the constriction associated with the Schoolhouse Bridge must be further analyzed. As a result, additional geologic and hydrologic studies were completed by Nelson-Couvrette and Associates Inc. (2000), and the U.S. Bureau of Reclamation (2002 & 2007). Findings from these studies indicated that the present river channel at Schoolhouse Bridge runs at the same location as the historic channel and bridge lengthening would have only a minimal effect in reducing upstream water surface elevations.

In 2007, based on the Bureau of Reclamation's findings, the project was again proposed to the Corps of Engineers for consideration, but under the Puget Sound and Adjacent Waters Restoration authority. The Corps is currently conducting preliminary scoping of the project using PSAWR monies, and will consequently prepare a decision document after a Feasibility Cost Share Agreement (FCSA) is signed.

II. PROJECT SCOPE

1. Project Needs

The Dungeness River flows north 31.9 miles and drops 3800 feet from the Olympic Mountains to the Strait of Juan de Fuca. Development is concentrated along the lower 10 miles, where the river flows through relatively steep (i.e. gradients up to 1%), glacial and glaciomarine deposits. Its average slope is 3.3 percent in the upper 15 miles, and flattens to 1.0 percent in the lower 15 miles. It drains a watershed of 172,517 acres. Its largest tributary, the Gray Wolf River, is 17.4 miles long, and its second largest tributary,

Canyon Creek, is 8.2 miles long. A total of 546 miles of streams and tributaries make up the watershed. Located in the rainshadow of the Olympic Peninsula, it is the only coastal watershed in the Northwest where an irrigation system is necessary for watering agricultural crops.

The most productive salmonid habitat in the watershed lies within the lower 10 miles. The river supports native runs of pink, chinook, coho, and chum salmon, bulltrout and sea-run cutthroat trout. The river and its tributaries are used throughout the year at different times and by different species for migration, rearing, and spawning. It is especially important for its population of pink salmon which is unique in the Puget Sound area. The population of pink salmon is entirely native wild stock with no hatchery influence and is presently declining. The Chinook population has also decreased and is considered to be severely depressed. Attempts to augment the population by hatch and release were discontinued in 1982 due to lack of success. The Dungeness Fish Hatchery hatches and releases both coho and chum salmon.

Tidal influence extends 0.9 miles to about Schoolhouse Bridge. Therefore, the project area does not encompass estuarine marsh processes. However, numerous freshwater wetlands in the watershed provide habitat for a range of resident and migratory waterfowl. The basin's lower annual rainfall has given rise to unique plant communities.

Today the lower 2.6 miles are highly impacted by levees along both banks of the river. The levees and other constrictions increase aggradation and sediment transport, prevent the formation of wetlands and degrade native plant communities. This has resulted in reduced channel stability and fish habitat and a natural delta no longer occurs in Dungeness Bay.

The project is needed to restore a portion of the natural resources of the Dungeness River to as close to historic conditions as possible. Alternatives may provide for levee setback to allow 4800 ft of river to be reconnected to approximately 100-150 acres of floodplain. The Corps will consider various locations for setback levees as well as the addition of additional features such as meanders, large woody debris, engineered log jams, native plantings, etc. All features must be justified, fall within the 544 study authority cost limits, and must include risk analysis.

Restored hydrologic flow will create wetland habitat for fish such as endangered Chinook salmon, bull trout and steelhead. Fish will have better access to refuge, feeding and spawning areas. The project site will also provide habitat for wildlife that utilize or are dependent on wetlands, including various bird and mammal species.

2. Purpose, Goals, and Objectives

The purpose of this ecosystem restoration project is to reconnect approximately 150 acres of the historic floodplain with the Dungeness River.

The Federal objective in ecosystem restoration planning is to contribute to national ecosystem restoration (NER). Contributions to national ecosystem restoration (outputs) are increases in the net quantity and/or quality of desired ecosystem resources.

The goal of the project is to restore ecosystem structures, functions, and processes of the Dungeness River associated with the floodplain and floodplain connectivity.

Project objectives include the following:

- Allow for greater channel migration within the active migration zone.
- Re-establish floodplain hydrology from RM .9 to RM 1.75.
- Provide for more latitudinal hydraulic connectivity across the project reach floodplain.
- Allow for increased channel complexity and formation in project area.
- Enable sediment accretion across a wider floodplain to allow for nutrient distribution.
- Allow for recruitment of large woody debris
- Continue to provide existing level of flood risk management to residences, utilities, and farms in the project area.

3. Problems & Opportunities

Problems

- Ecosystem structures, functions, and process are degraded in the project area. Examples include the following:
    - A loss of floodplain connectivity and a hydraulically constrained floodplain result in a lack of groundwater exchange and surface water storage.
    - The existing Federal levee system in the project area constricts channel migration, leading to aggradation of the channel bed and the disconnection of the river from its natural floodplain.

Opportunities

- Reconnect the Dungeness River with a significant portion of its historic floodplain from RM .9 to RM 1.75.
- Enable more flood desynchronization in a constricted floodplain.

4. Planning Constraints

A constraint is a restriction that limits the extent of the planning process. It is a statement of the project aspects that the alternative plans should avoid. Constraints are designed to avoid undesirable changes between without and with-project future conditions. Measures and alternatives are formulated to meet the objectives, subject to constraints. The planning constraints for this study are:

- The project must retain the original intent of the Federally authorized Section 205 flood project (referenced per the 1964 Detailed Project Report). The current levee was authorized for a 200 year level of protection.
    - Since the current levee is a federal flood protection project authorized by Congress, the proposed project cannot change the original intent of the authorized project. The Corps will need to assure that a new setback levee meets today's requirements for a 200 year event.
    - The feasibility study default assumption will be that the authorized project flood risk reduction criteria must be retained for the ecosystem restoration modifications. Other assumed levee criteria could be used as sensitivity data to show how much the project is adjusted with incremental changes in the criteria.
    - To make the project affordable to construct the sponsor may have to request Congress to lower the requirement for flood protection in the area or have Congress entirely deauthorize the project.
    - Decision points during feasibility will reflect the appropriate path forward. If feasibility reveals that costs are too high to construct a 200 year levee the sponsor may have to take an approach described above.
- The project must maintain the existing level of flood risk management and protection to nearby utilities, infrastructure, and private property.
- The Corps must recommend and implement a project that either meets Section 544 Federal funding limits ($5 million Federal limit) or the Corps must receive approval from the Division office to recommend a project that requires 100% non-federal funding from the sponsor to complete.
- The project must meet Corps Environmental Operating Principles, including sustainability.
- The project must be feasible for construction and cannot negatively impact adjacent landowners (the project is permitable, politically acceptable, physically possible, and retain existing levels of flood protection).
- The project meets eligibility and Project Merit Criteria as described in the information paper for the program authority, dated July 6, 2004.

5. Project Delivery Team

a) Corps responsibilities. The Corps of Engineers will provide technical expertise in the areas of engineering, environmental, and economic analysis for the purpose of furthering the project during all phases. The Corps will also provide project management and guidance, such as coordination with agencies and local groups, attendance at site visits, and legal guidance. The Corps will pay 50% of feasibility study costs after signing a Feasibility Cost Share Agreement. Prior to the project being constructed, the Corps will prepare a Project Partnership Agreement (PPA), which will further detail the Corps' (and sponsor's) responsibilities for construction and maintenance.

b) Sponsor Responsibilities. The non-Federal sponsor should, at minimum, provide project management support, such as attending regular meetings with the project team, participating in site visits, technical reviews, and providing guidance

on local project goals. The non-Federal sponsor should inform the project team of local issues that may affect the viability of the project and obtain local permits. The sponsor may also provide technical services outlined in the Project Management Plan, which may be used at least in part as in-kind payment toward the sponsor's cost-share. The local sponsor should also provide all necessary lands, easements, rights of way, disposal areas, and rights of entry for the project site.

With the execution of the Feasibility Cost Share Agreement, the non-Federal sponsor cost shares 50% of the feasibility study. Their 50% match may be provided to the Corps in cash or through pre-approved work (in-kind services) by the sponsor. The value of real estate required for the project including lands owned by the sponsor (as long as they were not acquired with federal funds) at the site can be credited toward the local cost match. The sponsor is also responsible for obtaining a disposal site if needed and any hazardous, toxic and radioactive waste (HTRW) removal that is required. Currently, a level one site assessment has not identified the presence of any hazardous, toxic and radioactive waste at the project site.

c) Study/Project Funding. Initial start up funds up to $100,000 are provided by the Corps to develop the Project Management Plan, prepare a Feasibility Cost Sharing Agreement and initiate feasibility. The local sponsor is responsible for 100% of the project operations, maintenance, repair, rehabilitation, and replacement (OMRR&R). At the end of construction the Corps and the non-Federal sponsor will prepare an operation, maintenance and repair plan that will address long term care of the project

Any project implementation, except real-estate acquisition, work completed by the non-Federal sponsor before the Project Partnership Agreement is signed will not be credited as in-kind contributions; however, total project costs will be reduced based on these activities.

Table 1. Corps Project Delivery Team

Name	Corps Staff:	Office Symbol	Phone	Email
Josh Fitzpatrick	Project Manager	PM-CP-CJ	(206) 764-3654	joshua.t.fitzpatrick@usace.army.mil
Bernard Hargrave	Program Manager	PM-CP	(206) 764-6839	bernard.l.hargrave@usace.army.mil
Rachel Mesko	Plan Formulation	PM-PL-PF	(206) 764-6587	rachel.c.mesko@usace.army.mil
Linda Smith	Plan Formulation	PM-PL-PF	(206) 764-6721	Linda.s.smith@usace.army.mil
Jacob Firle	Plan Formulation	PM-PL-PF	(206) 764-3648	Jacob.j.firle@usace.army.mil

Danielle Storey	Cultural Resources	PM-PL-ER	(206) 764-4466	danielle.l.storey@usace.army.mil
Lee Ford	Civil Engineer	EN-DB-CS	(206)764-3765	lee.ford@usace.army.mil
Zac Corum	Hydraulic Engineer	EC-TB-HE	(206) 764-6581	zachary.p.corum@usace.army.mil
Laura Orr	Cost Estimator	EC-CO-CA	(206) 764-6761	laura.a.orr@usace.army.mil
Travis Goss	Geotechnical Engineer	EN-DB-CS	(206)764-6714	travis.b.goss@usace.army.mil
Charyl Francois	Economic Analysis	PM-PL	(206)764-5522	charyl.l.francois@usace.army.mil
Doris Cope	Real Estate	RE-RS	(206) 316-4417	Doris.l.cope@usace.army.mil
Pat Cagney	Environmental Resources	PM-PL-ER	(206) 764-3654	Patrick.t.cagney@usace.army.mil
TBD	Appraiser	RE-AP		
Jim Collins	Office of Counsel	OC	(206) 764-3635	James.b.collins@usace.army.mil
TBD	Construction Rep			

Table 2. Sponsor Team

Name:	Role:	Organization	Phone	Email:
Hannah Merrill	Project Manager	Clallam County	(360) 417-2563	hmerrill@co.clallam.wa.us

6. Project schedule, upward reporting, and fiscal management

This project is managed in the Corps of Engineers Primavera Project Manager data system (P2), an automated scheduling, resourcing, and budgeting program. Information from Primavera is linked into the Corps of Engineers Financial Management System (CEFMS). The Corps of Engineers Financial Management System will only allow expenditures that have been scheduled, resourced, and budgeted in Primavera.

7. Feasibility Study Overview

Phase 1: Initiation

1. Sponsor submits letter of intent
2. Team startup activities (identify Project Delivery Team, prepare Project Management Plan, identify feasibility phase tasks and deliverables)

Phase 2: Feasibility
Duration depends on depth of information provided by Sponsor to be utilized by Corps staff.

1. Sign Feasibility Cost Sharing Agreement
   Cost shared 50% Federal, 50% non-federal*.
2. Review and evaluate the Plan Formulation process
3. Identify various measures that meet project objectives and fall within project constraints
4. Evaluate measures and alternatives based on costs, sustainability, and environmental benefits
5. Develop project costs and ecosystem benefits for most successful alternatives
6. Incremental Cost Analysis and Cost Effectiveness Analysis to determine National Ecosystem Restoration Plan
7. Project studies and evaluations in support of project design
8. Development of environmental documents
9. Conduct Real Estate planning process (complete Real Estate drawing, valuation estimate of lands, baseline cost estimate for real estate)
10. Develop 35% design, complete costs, including real estate and O&M costs
11. Complete Value Engineering (VE)
12. Draft Project Partnership Agreement
13. Complete draft feasibility report/environmental assessment
14. Alternative Formulation Briefing (AFB) with Corps of Engineers Northwestern Division (NWD)
15. District Quality Control (DQC) of the decision document
16. Agency technical review (ATR) of the decision document
17. Additional technical evaluation
18. Finalize National Environmental Protection Act (NEPA)/decision document
19. Submit completed decision document for Corps of Engineers Northwestern Division Approval

III. FEASIBILITY PHASE TASKS, ISSUES, AND DELIVERABLES

a) Feasibility Investigation Tasks (by discipline) - Corps
This section outlines the tasks, roles and responsibilities as well as costs that will occur under the feasibility phase and that are covered under the Feasibility Cost Sharing Agreement. Table three (below) provides an overview and cost associated with these project elements. The next several paragraphs outline in more detail which project elements need to be completed, who is responsible and the associated cost for each task. Those tasks the Corps is responsible for are outlined first followed by those of the local sponsor.

Corps Tasks During Feasibility:

Project Management - (PM)

- Update the Project Management Plan (PMP) when needed (usually annually)
- Attend meetings, prepare correspondence, prepare meeting minutes
- Track and develop budgeting and schedule
- Provide schedule and financial updates in Primavera Project Manager data system
- Serve a point of contact for non-Federal sponsor, stakeholders, and agencies for the project.
- Coordinate Project Development Team (PDT)
- Conduct alternatives evaluation/plan formulation review
- Coordinate District Quality Control and Agency Technical Review
- Perform upward reporting requirements within the Corps

Projected Cost - $33,000

Plan Formulation – (PF)

- Study initiation: scoping, Project Management Plan development, Feasibility Cost Sharing Agreement, Review Plan
- Conduct without project and future without-project conditions analysis: review existing data related to current site conditions as well as future (50 year planning period of analysis) without project site conditions
- Develop measures
- Coordinate public involvement with sponsor and Corps of Engineers Public Affairs Office (PAO)
- Conduct 10% design and prepare cost estimate of measures
- Final array of measures
- Develop, analyze, and screen alternatives
- Conduct 35% design and cost estimate
- Coordinate reviews including District Quality Control and Agency Technical Review
- Prepare alternative formulation briefing read-ahead report
- Conduct alternative formulation briefing with Corps of Engineers Northwestern Division
- Prepare draft and final decision document – Detailed Project Report/Environmental Assessment (DPR/EA): documentation and review

Projected Cost - $80,000

Geotechnical evaluations

Conduct necessary geotechnical evaluations for site design, including data needed to evaluate seepage and settling of the proposed cross levee. Create a fragility curve as input into statistical analyses to determine current levee's level of flood protection. Provide input to decision document and participate in District Quality Control and Agency Technical Review. Prepare a scope of work for geotechnical needs. The scope which will be sent to a contractor will address the number, location and types of samples and tests

needed. Once the samples have been taken, the Corps will evaluate the results and prepare a letter report with results and conclusions.

Projected Cost - $24,000

Hydraulics & Hydrology (H&H)
Review technical studies, hydraulic modeling results and site drainage and flood analysis to first determine the existing minimum level of protection for the existing levee. This will define the minimum level of performance for the setback levee alternatives. Proposed alternatives will be modeled with HEC-RAS (or equivalent) and the data provided to the geotechnical engineers and economists to perform an econ evaluation to select the preferred setback alternative. The hydraulic engineer will assist with cross levee design criteria and breaching criteria for 35% design, including geomorphic evaluations of river migration and riprap sizing. Prepare information necessary for a completed decision document, and participate in District Quality Control and Agency Technical Review.

Projected Cost - $40,000

Hazardous Toxic and Radioactive Waste (HTRW)
A Hazardous Toxic and Radioactive Waste analysis will need to be conducted. This information will be included in the Decision Document. Additional Hazardous Toxic and Radioactive Waste analysis will occur in the next phase (Design and Implementation (D&I)) if needed. Hazardous Toxic and Radioactive Waste personnel will have the opportunity to examine test pits and soil boring when they are obtained in the feasibility phase. This assessment has already been completed by Washington Department of Transportation and will be referenced in the decision document.

Projected Cost -$0.00

Environmental Resources (ERB)

- Complete an Environmental Assessment in accordance with National Environmental Policy Act, including a public notice, a Biological Assessment for the Endangered Species Act (ESA), a wetland delineation and 404(b) (1) analysis for section 404 of the Clean Water Act, and a 401 water quality certification and Coastal Zone Consistency determination. The Corps will coordinate and communicate all Endangered Species Act concerns with appropriate Resource Agencies. The Corps and sponsor will determine how the environmental compliance requirements will be met for this project.
- An archeologist will coordinate cultural and historic resource concerns. A cultural resource survey will be conducted on site during the feasibility phase. Test pits will be dug and an evaluation report will be generated. The archeologist is also responsible for coordination with affected Tribes, the State Historic Preservation officer and compliance with Section 106 of the National Historic Preservation Act. The local Sponsor will obtain local permits for the project as described in the next section.

- A public meeting will most likely occur during the permitting process; this will coordinated by the Project Manager and Corps Public Affairs Office in conjunction with the sponsor to insure a functional and efficient involvement for the public.
- Provide text for the draft and final document and participate in technical reviews including District Quality Control and Agency Technical Review.

Project Cost - $275,000 (includes both cultural resources and environmental resources)

Civil & Structural Engineering

- Engineering efforts will include reviewing preliminary designs for measures and alternatives provided by Clallam County. Engineering team members will also review any additional designs that may be developed by the Project Delivery Team. Civil Engineering will develop the 35% design for the recommended plan (including dike breaches, a new cross levee, and drainage systems). The non-Federal sponsor has developed designs that will serve as a basis for further evaluation.
- Civil/structural will prepare design drawings and provide appropriate written material for a decision document.
- Civil and structural will also play a significant role in the technical review including District Quality Control and Agency Technical Review.

Project Cost - $12,000

Economics

- Perform incremental cost and cost effectiveness analysis (costs and outputs (benefits)) using inputs from others to evaluate alternatives and determine and the recommended plan.
- Prepare narrative analysis of findings as well as cost sharing for inclusion in decision document. Work with cost estimating on developing total project cost and other required economic analysis for report.
- Participate in Agency Technical Review and District Quality Control

Project Cost - $19,000

Cost Estimating

- Complete cost estimate of two design alternatives (10% level using M2 computer software)
- Complete 35% cost estimate (M2)
- Incorporate real estate costs into Total Project Cost
- Coordinate Agency Technical Review with Corps of Engineers Walla Walla Cost Estimating Center of Expertise
- Evaluate project for constructability

Project Cost - $25,000

Real Estate (RE)

- A valuation estimate of the lands (i.e. reasonable cost estimate of the real estate interests for the proposed project). Work product to be prepared by Corps staff appraiser
- Prepare Real Estate Plan
- A brief real estate summary paragraph for decision document that describes the lands, easements, rights-of-way, relocations, and disposals (LEERD) necessary for the construction, operation, and maintenance of the project, including total acreage broken down by estate (property interest) and duration of easements required. Work product to be prepared by Real Estate Division Cost-Share Program Manager and Realty Specialist.
- A baseline cost estimate for the real estate. This estimate includes the estimated total cost for both the federal government and non-federal sponsor to implement the real estate portion of the project. It includes the results of valuation estimate of the lands required for construction, operation, and maintenance of the project. The results of this work product are included in the real estate summary paragraph.
- Participate in District Quality Control and Agency Technical Review

Project Costs - $53,000

Value Engineering (VE)
A value engineering analysis is required for all projects over $1 million dollars. Value engineering will look for ways to reduce project costs while meeting project goals and objectives. Value engineering may be done by contract or in-house staff, based on availability. Value Engineering will occur after the design and cost estimate for the 35% design.

Project Cost - $45,000

Legal assistance and preparation of Project Partnership Agreement
Office of counsel will assist this project in review of documents such as National Environmental Policy Act and the Decision Document and the preparation of the Feasibility Cost Share Agreement.

Project Cost under the Feasibility Cost Sharing Agreement - $0 (overhead funded)

b) Feasibility Task Deliverables

1. Feasibility Cost Sharing Agreement package
    a. Includes cover memo with request (including certification of using a model Feasibility Cost Sharing Agreement and the Certification of Project Management Plan), location map, Feasibility Cost Sharing Agreement (clean copy and redline), Corps certificate of legal review, Project Management Plan, and Review Plan
    b. Sponsor submits self-certification of financial capability statement and disclosure of lobbying statement for Feasibility Cost Sharing Agreement package

2. Project Management Plan
3. Review Plan
4. Discipline-specific scopes of work
5. Without Project Condition Report (portion of decision document)
6. Plan Formulation: identification of measures and alternatives, write up of Plan Formulation portion of decision document
7. Screening of measures (non-cost criteria)
8. Preliminary cost estimate for real estate (tax assessments)
9. Preliminary design drawings and cost estimate for alternatives (10%)
10. Incremental cost and cost effectiveness analysis (incorporating benefits analysis)
11. Cultural Resources Assessment and National Historic Preservation Act compliance
12. Environmental Assessment/Section 404 of the Clean Water Act 404/Public Notice
13. Joint Aquatic Resources Permit Application (JARPA – Costal Zone Management/401)
14. Biological Assessment
15. Section 404(B) (1) analysis with wetland confirmation
16. Environmental Assessment with Finding of No Significant Impact (FONSI - probable)
17. Geotechnical scope of work and analysis
18. Design drawings (35%)
19. Cost estimate on 35% design (Micro-Computer Aided Cost Estimating System - MCASES)
20. Agency Technical Review of draft decision document and back check using DrChecks computer software
21. Alternative Formulation Briefing read ahead documents and memorandum
22. Draft Project Partnership Agreement
23. Real Estate Plan (Real Estate drawing and valuation estimate of the project lands and baseline cost estimate for the real estate)
24. Final decision document with technical review and back check
25. Decision Document Package (cover memo, decision document, sponsor's letter of intent, assessment of financial capability, legal certification)
26. Value engineering report

c) Feasibility Investigation Tasks (by discipline) - local sponsor

Task to be completed under the Feasibility Cost Sharing Agreement by the local Sponsor:

- Project management, meetings, & coordination
- Public involvement
- Obtain local permits

d) Feasibility Task Deliverables – local sponsor

1. Routine project management, budgets, schedules, meetings and coordination

Table 2 provides a summary of the tasks identified to be completed under the Feasibility Cost Share Agreement. It also outlines who is responsible for these tasks as well as the

costs. To summarize; under the Feasibility Cost Share Agreement the total cost is $670,000. The Corps is to provide $335,000 of the cost and the local sponsor (Clallam County) will provide the remaining $335,000. All of the $335,000 will be provided in cash. The expected duration of the feasibility phase is 12 months from signing the Feasibility Cost Share Agreement.

Table 3. Feasibility Cost Share Agreement Tasks and Costs

Dungeness River Restoration, Section 544 to be completed under Feasibility Cost Share Agreement					
Feasibility (FCSA) including 35% design		Total Task Cost	Corps Contribution	Local Sponsor in kind contribution	
Task	Task Description	Total $'s			Assumptions
Project Management (PM)	Routine PM/Meetings/Coordination. Prepare Draft Project Cost share Agreement	33,000	16,500	16,500	
Planning	Routine Planning	80,000	40,000	40,000	
	Prepare without project and future without project conditions				
	Identification of measures				
	Identification of measures, screening criteria, screening measures at 10% design)				
	Screening of measures/Develop screening criteria				
	Evaluation of measures at 10% design				
	Selection of preferred alternative. Selected alternative will dictate if Locally Preferred Plan or National Ecosystem Restoration Plan implemented				
	Prepare Decision Document and graphics				
	Facilitate Agency technical review				
Economics	Economic Evaluation of costs/benefits	19,000	9,500	9,500	
Civil Engineering	35% Design Element/Evaluation	12,000	6,000	6,000	
	Design Branch Efforts				
	Update existing design plans				
Environmental Resources	Project Monitoring Plan : Biological monitoring plan for evaluating restoration	195,000	97,500	97,500	
	ESA, 404, public notice, NEPA,CZMA				
Cultural Resources	Evaluation & coordination with SHPO	79,600	39,800	39,800	
Hydraulic Engineering	Hydrology support . Review flood evaluation and culvert design	40,000	20,000	20,000	
Geotechnical Evaluation	Soils testing	24,000	12,000	12,000	Contractor
Geographic Information Systems	Producing cartographic maps	1,750	875	875	
Real Estate	Gross appraisal and map- some contracting	53,000	26,500	26,500	Map
Cost Engineering	10% and 35% Design Estimate. Formal equipment cost analysis	25,000	12,500	12,500	
Value Engineering	Engineering evaluation of cost saving methods	45,000	22,500	22,500	Required
LEGAL	Prepare and Execute FCSA, PPA, legal review	0.00			
TOTAL		$607,347	$303,674	$303,674	

Contingency 10%		$62,700	$31,327	$31,327	
GRAND TOTAL		**$670,000**	*$335,000*	*$335,000*	*50:50 Cost Share*
	The local sponsor will provide the following cash contribution:			$335,000	

c) Scope Changes

For any changes in scope or schedule, the responsible person will notify the Project Manager for concurrence. Because several events are sequential, the scope change may require a team meeting. All significant changes, which affect the team and schedule, will be discussed as a team to determine the best course of action. All final decisions rest with management; decisions relating to specific technical issues rest with the Project Delivery Team technical lead. The local sponsor work in-kind must be an element to complete during feasibility and must be included in the Project Management Plan and /or negotiated with the Corps prior to being initiated.

IV. SCHEDULE - MILESTONES

(Please refer to primavera for detailed schedule)

Table 4. Milestone Schedule

Milestone	*Completion Date*	*Actual Date*	*Completion Criteria*	*Status*
Approve PMP	Dec, 2010			
Initiate Feasibility Study / Consultation	Oct, 2010		Draft FCSA and PMP	
Sign FCSA	Feb, 2011		Signed FCSA and PMP	
Complete Draft Decision Document	Nov, 2011			
Complete ATR	June, 2012			
Complete Draft Environmental Compliance Documents (EA/404, JARPA/CZM/401	July, 2011			
ATR (BE, EA)				
Submit Docs to appropriate agency for review				
Alternative Formulation Board with NWD. Incorporate Comments/ Negotiate with services	Jan, 2012			
Finalize Documents				
Sign FONSI (Requires completion of all environmental			Must be completed prior to PPA Execution	

compliance above)				
Submit Final DD Package to NWD	Sept, 2012			
Project Approval				
Start final design				
Negotiate PPA	Oct, 2012			
Execute PPA	June, 2013			
Complete plans and specifications			Must be completed prior to LEERD cert.	
Sponsor acquires LEERD			Must be completed prior to award/procurement	
Corps Certifies LEERD Receipt of Non-federal funds			Must be completed prior to award/procurement	
Negotiate Contract			Cannot neg. without PPA	
Award Construction Contract				
Initiate Construction (NTP)				
Complete Construction				
Start Post-Construction Monitoring				
Complete Monitoring & Report				
Project Closeout and final accounting				

V. COST SUMMARY

Table 5. Cost Summary

Phase	Cost Share	Total Project Costs	Total Fed Cost	Total Non-Fed Cost	Federal Cost		
					FY 11	FY 12	Balance to Complete
Feasibility*	50%/ 50%	$670,000	$335,000	$335,000	$335,000	$	
Advanced Design, P&S	65%F/ 35% NF						
Construction & Monitoring	65% F/ 35% NF						
LER	100% NF						
TOTAL							

*First 100K of Feasibility costs is federally funded; additional study funds will be cost-shared 50/50 with the non-federal sponsor pursuant to the terms of a Feasibility Cost Share Agreement

Non – Federal Requirements

Land, Easements, Right of Way, Rights of Disposal $

Cash $

Work-in-kind	$
Annual Operations, maintenance, repair, rehabilitation, and replacement	$

Fully funded cost estimate for the preferred alternative is approximately $_____.

VI. QUALITY CONTROL

Purpose. This Quality Control (QC) Plan presents the process that assures quality products for the feasibility study. Corps policy is to develop, integrate and implement quality control and quality assurance as a part of the Corps' Project Management Business Process (PMBP). The Project Delivery Team will ensure that services and products meet the agreed upon requirements and are performed in accordance with appropriate laws, policies and technical criteria. The Quality Control Plan defines the responsibilities and roles of each member of the Project Delivery Team and the technical review teams relative to quality control. District Quality Control and Agency Technical Review will be performed independent of the technical production of the product to be reviewed and will include all relevant technical disciplines, along with necessary legal sufficiency and policy compliance review.

References: ER 5-1-11, U.S. Army Corps of Engineers Business Process; ER 1110-1-12, Engineering and Design Quality Management; ER 1110-1-8159, Design and Review Checking System, DrChecks; NWSOM 5-1-3, Quality Management Plan, Seattle District; Northwestern Division Quality Management Plan; EC 1165-2-209, Civil Works Review Policy, ER 1105-2-100, Planning Guidance Notebook.

Methodology:

District Quality Control. All draft products and deliverables will be reviewed by the Project Delivery Team as they are developed to ensure they meet project objectives, comply with regulatory and engineering guidance, and meet expectations of quality. Informal team reviews, consisting of presentations and discussions of interim documents, shall be documented with meeting minutes. Appropriate senior staff members from the organizations completing the tasks will also review all technical work before it is submitted forward to the Agency Technical Review. The non-federal sponsor and outside technical experts familiar with the project may also be involved in a preliminary form of District Quality Control for particular products. All draft products and deliverables shall be reviewed in the Design Review and Checking System (DrChecks^{sm}) as they are developed. Comments and resolutions will be documented DrChecks^{sm}. DrChecks^{sm} is a module of the ProjNet^{sm} suite of tools developed and operated by Engineer Research and Development Center –Construction Engineering Research Laboratory (www.projnet.org), and facilitates and documents the formal review of project documents. Outside technical experts will be granted access to DrChecks^{sm} for document review.

Reference: ER 1165-2-209, Civil Works Review Policy, 31 Jan 2010.

Agency Technical Review. The objective of the Agency Technical Review is to ensure the product is consistent with established criteria, guidance, procedures, and policy. The Agency Technical Review will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. Products will be reviewed against published guidance, including Engineering Regulations, Circulars, Manuals, Engineering Technical letters and Bulletins.

The selection of an Agency Technical Review team outside of Corps of Engineers Northwestern Division will be coordinated with Corps of Engineers Northwestern Division Northwestern Division Planning Section.

Corps personnel external to the Seattle District will perform this Agency Technical Review. Technical disciplines to be represented on the Agency Technical Review will, at a minimum, include hydraulics, planning, economics, environmental, cultural, design, real estate, and plan formulation. The cost estimates produced for the project will undergo Agency Technical Review through the Cost Estimating Planning Center of Expertise at Walla Walla District. All decision documents require Agency Technical Review. All products will be reviewed in DrChecks[sm] where comments and resolutions will be captured. A detailed Review Plan, once approved by Corps Division offices and the Centers of Expertise, will be posted on the Division website. Policy issues will be reviewed by Corps Division and Headquarters, and the Chief of Engineers' office. EC 1165-2-209, Appendix C, page 4 provides additional review criteria.

Reference: ER 1165-2-209, Civil Works Review Policy, 31 Jan 2010.

Independent External Peer Review. Independent External Pier Review is the most independent level of review and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. At this time, it is not anticipated that the project will require an Independent External Pier Review.

Reference: ER 1165-2-209, Civil Works Review Policy, 31 Jan 2010; Program Management Plan for Continuing Authorities Program (CAP), Northwestern Division, April 2010.

Model Approval and Certification. All models utilized for the study will be required to undergo either model approval or certification. At this time it is not anticipated that model approval or certification will be needed for the project. If model approval or certification is required it will be in compliance with EC 1105-2-412, *Assuring Quality of Planning Models*, 30 Jul 2009.

Review Plan

To ensure transparency and accountability in the Corps planning process, the Corps requires the preparation of a Review Plan. The Review Plan outlines the parameters of District Quality Control, Agency Technical Review, and Independent External Pier Review. The Corps will be responsible for preparing the Review Plan and for providing a cost estimate for completion of the requisite Corps review processes. In addition to these reviews, the Project Delivery Team, interested agencies, and public will be provided review opportunities. This plan recommends the level of technical review. Corps review will address policy, technical, and legal compliance. The Review Plan will be submitted to the Environmental Center of Expertise for approval prior to submittal to Northwest Division for final approval. The Review Plan is a living document and will be modified throughout the study as appropriate. All policy compliance milestones will be implemented in accordance with ER 1105-2-100, Planning Guidance Notebook and, EC 1165-2-209, Civil Works Review Policy.

Quality Control Responsibilities

Project Managers

The Corps project managers shall be responsible for coordinating the District Quality Control and Agency Technical Review efforts with the review team leader, and shall:

1. Ensure that the schedule contains sufficient time to perform reviews of completed products.
2. Ensure that the project has sufficient funds to perform reviews of completed products.
3. Manage responses to technical review comments and resolve technical issues with the technical review team leader, consult with Northwestern Division and the Centers of Expertise as appropriate, and forward all unresolved technical review issues to the Corps managers for resolution.

Resource Managers

Each Corps Resource Manager is responsible for ensuring that all work prepared by or for his/her Section or Branch has received any necessary internal quality control checks prior to the product being furnished to the Agency Technical Review team.

Technical Review Team Leader and Technical Review Team Members

The Agency Technical Review team leader is responsible for coordinating all activities associated with the technical review of assigned work products. The team leader will be assigned by the Planning; Northwestern Division will be from outside the Northwestern Division. The technical review team leader will coordinate the Agency Technical Review team members. Each technical review team member is responsible for performing a technical review of assigned work products and providing written comments to the technical review team leader for consolidation in a review memorandum. Technical review team members will also conduct a back check of Project Delivery Team responses to technical review comments and provide results of the back check to the technical review team leader.

Consultants
Consultants are an extension of the Corps staff. Accordingly, all products prepared by consultants will undergo the same technical review process as required for Corps products prepared in-house by the Project Delivery Team. All products prepared by the non-Federal sponsor or their contractors as part of the study will require District Quality Control and Agency Technical Review.

VII. CHANGE MANAGEMENT

The decision-making processes for the project will be highly dependent upon the various issues. For the most part, the Corps and Sponsor Project Mangers will make decisions in coordination with their management/supervisory chains. If difficult issues come into play additional management will become involved to develop solutions for the issue. The following individuals will be members of the management team.

Corps:

Bernie Hargrave	Program Manager PSAWR
Beth Coffey	Chief Civil Programs and Projects
Evan Lewis	Chief Environmental Resources Section
Mona Thomason	Chief, Planning Branch
Olton Swanson	Chief Planning, Programs and Project Management Division

VIII. RISK MANAGEMENT

1. Cost. Cost overruns present a serious risk with high impact to the successful implementation of the project. To manage this risk, cost estimates are being prepared for the decision document submittal (35% design level) and prior to construction (95% design level).

2. Project Outputs. Achieving the desired project outputs entails risk. To minimize the risks of project failure, or achieving less then desirable outputs, the project biologist will develop a monitoring plan for post construction. Although the Corps does not anticipate making any physical changes to the project as a result of monitoring information, results will inform future projects in the area and minimize their risks of failure. Also, the project sponsor may choose to make changes in harmony with the monitoring results.

3. Scope changes and cost:
When the 35% cost estimate for project construction and final design is completed at the end of feasibility, and the value for real estate is estimated, the sponsor will be notified of their anticipated cost share for the Design and Implementation Phase. The sponsor will be required to sign a Project Partnership Agreement early in the Design & Implementation phase based on a revised Project Management Plan to complete the project. The Project Partnership Agreement will include the responsibilities of the Federal government and the non-Federal sponsor through construction and long term

maintenance requirements of the project. Even with a feasibility cost estimate, the sponsor and Corps need to be aware that cost shares may change prior to construction.

4. Political risks:
None have been identified at this time. The sponsor is enthusiastic about the project and strongly supports it.

IX. COMMUNICATION PLAN

1. Corps Team. The Corps team will meet on a regular basis to discuss design and project development issues. Each member of the project team is required to determine when they need to be involved in team discussions and to what degree. Each member is required to take responsibility in communicating to the Project Manager when they require additional information to complete their responsibilities. Each team member is also required to notify the Project Manager at least two weeks in advance if they will be unable to meet project schedule milestones. If budgets or schedules are not met the Project Manager may discuss the issue with the appropriate resource manager.

2. Sponsor. Communication with the project sponsor will occur on an as needed basis early and often to solve problems in a timely fashion. The sponsor will be invited to participate in Project Delivery Team meetings in person or by phone, and will be provided with copies of meeting minutes and other pertinent documents. Periodic meetings between the Corps and sponsor will facilitate project oversight. The Corps will notify the sponsor of any major decisions which will affect cost share or schedule. The Corps Project Manager will be the main point of contact with the sponsor, and all documents or information from the sponsor will go through the Corps Project Manager.

3. Agencies. Communication with agencies will occur through the public notices as required for National Environmental Policy Coordination Act, and other outreach channels as identified.

4. Public/Stakeholders. Stakeholder coordination may occur through activities such as presentations at meetings, one-on-one outreach, and specific requests for information and/or input needed to develop products.

Broader public involvement will consist of activities to inform and obtain input from the public at appropriate stages of the planning process. The Corps and non-federal sponsor will develop a process to identify and present potentially controversial measures for public consideration and comment, as appropriate. The public involvement process will include activities such as: workshops, meetings, presentations to stakeholder groups and members of the public, public hearings, and distribution of print materials.

X. PROJECT CLOSEOUT PLAN
(To be completed)

XI. LIST OF ACRONYMS

ATR – Agency Technical Review
BA – Biological Assessment
DQC – District Quality Control
EA – Environmental Assessment
ERS – Environmental Resources Section
FCSA – Feasibility Cost Sharing Agreement
HTRW – Hazardous, Toxic, Radioactive Waste
IEPR – Independent External Peer Review
ILC – Inter-local Cooperation Agreement
JARPA – Joint Aquatic Resource Permit Application
LERRD – Land, Easements, Right of Way, Rights of Disposal
NEPA – National Environmental Protection Act
NER Plan-National Ecosystem Restoration Plan
O&M – Operation and Maintenance
PM – Project Manager
PMP – Project Management Plan
PPA – Project Partnership Agreement
PSAWR –Puget Sound and Adjacent Waterways Restoration
RE – Real Estate
TBD – To Be Determined

This Project Management Plan is a living document and will be modified throughout the study as appropriate. The Project Management Plan will be approved by appropriate resource managers, the Puget Sound & Adjacent Waters program manager, and Civil Projects and Planning Branch.

I agree to this Project Management Plan

Josh Fitzpatrick
Project Manager, Corps of Engineers

Date

I agree to this Project Management Plan

Hannah Merrill
Project Manager, Clallam County

Date

APPENDIX 1
DETAILED SCOPES OF WORK

Dungeness River – Project Management Scope of Work

Primary duties and responsibilities: The primary duties of the Project Manager during the feasibility study will include day-to-day oversight of the budget, schedule, and effort of the Project Delivery Team members through the feasibility phase. The Project manager will work with the project management team of the non-federal sponsor to coordinate effort and communication between local and federal government agencies, interest groups, and the general public. The Project Manager will also be responsible for oversight of in-kind services and contracted efforts. The Project Manager will facilitate all meetings and briefings as necessary, as well as provide responses to other inquiries into the study.

Program and budget analysts will provide support to the project management team as needed to establish, maintain, and adjust budgeting requirements as required. The scheduler will work with the project management team to update and adjust the schedule as needed.

Dungeness River Feasibility Study Project Management Costs

Team Member (estimated 1 yr. study duration)	**Cost**
1. Project Management	26,650
2. Budget Analysis	2,000
3. Program Analysis	2,000
4. Scheduling	2,000
Grand total	**$33,000**

Assumptions

- Project Manager is assumed to be working 1/5 time:

  Project Manager: 410hours/yr @ $65/hr = $26,650/yr
  Program Manager:

- Budget Analysts, Program Analysts, Schedulers assumed to be working 60 hours/year:

  Budget Analysts: 20 hours/yr @ $100/hr = $2,000/yr
  Program Analysts: 20 hours/yr @ $100/hr = $2,000/yr
  Scheduler: 20 hours/yr @ $100/hr = $2,000/yr

FY11 Capability
Completion of the following Milestones will occur in FY11 (assumes full funding capacity):

- Complete Project Management Plan: Nov 2010
- Feasibility Cost Share Agreement executed: Feb. 2010
- Without Project Conditions Report Complete: March 2011
- 10% Alternatives Selected: July 2011

Dungeness River – Cost Engineering Scope of Work

Primary duties and responsibilities: The primary duties of the cost engineer during the feasibility study include developing cost estimates of two design alternatives (10% level) and incorporating real estate costs into total project cost.

Dungeness River Feasibility Study Project Management Costs

Tasks	Cost
Three alternatives at a 10% Cost Estimate	15,000
One alternative carried to a 35% design	10,000
Grand total	**$25,000**

Dungeness River – Real Estate Scope of Work

Primary duties and responsibilities: During the feasibility phase Real Estate Division will perform an assessment of the real estate requirements (i.e. lands, easements, and rights-of-way necessary for project construction and subsequent operation and maintenance) that support the preferred alternative described in the project decision document. Specific tasks to be completed by the real estate Project Delivery Team member(s) include the following:

1. Coordination & Meetings

Participation with the Project Manager and other district elements in the feasibility study and Project Management Plan preparation. Attend meetings with the local sponsor to discuss the general real estate process.

2. Procure Title

Procurement of title information for the proposed project lands. Purchase limited/litigation liability guarantee title for the proposed project lands, current vesting deeds and any leases associated thereto, all exceptions to title, plus all documents

associated with exceptions and legal descriptions, and list of third party interests when information is not available from, or provided by the local sponsor.

3. Rights-of-Entry

Obtain Rights-of-Entry for study investigations that require ground disturbance activities or where verbal permission from the landowner is not received for non-ground disturbance activities. The local sponsor provides full size tax assessor's maps cross-referenced with tax parcel number and taxpayers name.

4. Real Estate Drawings

Development of real estate drawings for the Real Estate Plan that clearly delineates the project area, acreage, property ownerships within the project site, and estates required to support construction and subsequent operation and maintenance of the proposed project. The drawing would include utilities and facilities to be relocated and any potential hazardous substance areas regulated under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

5. Facility and Utility Relocations

Identification of roads, railroads, pipelines, utilities, bridges etc. within the proposed project. Meetings and discussions with the local sponsor and Project Delivery Team to evaluate the impact of the project on the facilities/utilities in order to develop a remediation plan. Local sponsor provides supporting title information regarding any affected utility/facility that is required for the Attorney's Opinions of Compensability. Title information could include copies of recorded easements, franchise agreements, etc. as evidence of the utility's affected real property interest.

6. Valuation Estimate or Gross Appraisal

Completion of a valuation estimate of lands or gross appraisal for planning and budgeting purposes (i.e. reasonable cost estimate of the real estate interests for the proposed project).

7. Physical Taking Analysis

Completion of a physical taking analysis, separate from the Real Estate Plan, that briefly describes the nature and extent of the flooding that might occur as a result of the redirection of water caused by, but not limited to, levee removal or the construction of levee spreaders, and whether additional acquisition of lands are required. The taking analysis provides a reasoned conclusion on whether the expected induced flooding would rise to a level of a taking for which just compensation would be owed. The conclusion of this analysis is included in the Real Estate Plan.

8. Relocation Survey and Plan

Completion of a relocation survey and plan identifying the relocation assistance benefits anticipated to be required in accordance with Public Law 91-646 including the number of persons, farms and businesses to be displaced by the project and estimated costs. The survey must also describe the availability of replacement housing and any need for last resort housing benefits. The relocation survey is a three step process. First, determine the eligibility of the displaced; second, resolve eligibility issues; and third, quantify the benefits.

9. Real Estate Plan

Completion of a Real Estate Plan. The Real Estate Plan is the real estate work product that supports project plan formulation and includes a discussion of significant topics and the reason for supporting each conclusion presented. It identifies and describes the lands, easements, rights-of-way, relocations, and disposals necessary for the construction, operation, and maintenance of the project, including total acreage broken down by estate and duration of easements required.

10. Baseline Cost Estimate

Completion of a baseline cost estimate for the real estate. The baseline cost estimate for the real estate includes the fair market value of the lands, easements, rights-of-way, relocations, and disposals required for the construction, operation and maintenance of a proposed project, including but not limited to those required for relocations, borrow material, and dredged or excavated material disposal; the costs of relocating displaces from residences, farms, or businesses under P.L. 91-646, as amended; the incidental acquisition costs for both the Corps and the local sponsor; and estimated risk contingency costs.

10. Local Sponsor Coordination

Coordination with the local sponsor to complete an Acquisition Capability Assessment checklist and determine proper legal authority and capability to perform project real estate requirements. Provide guidance to the local sponsor regarding a legal memo that the local sponsor attorney will need to complete. The completed Acquisition Capability Assessment and Attorney's Legal Memorandum will be attached as exhibits to the Real Estate Plan.

Dungeness River Feasibility Study Real Estate Costs

Tasks	Cost
1. General Coordination Activities	5,562
2. Real Estate LERRD Certification & Project Footprint Drawing	4,607

3. Real Estate Requirements	1,384
4. Facility & Utility Relocations & Final Opinion of Compensability	3,806
5. Appraisal Activities	12,645
6. Right of Way Activities	9,988
7. Project Cooperation Agreement (PCA) Activities	367
8. Crediting and Final Accounting Activities	5,294
15. Real Estate Division Project Management	2,911
16. Real Estate Division Technical Resources Branch	1,165
17. 10% Contingency	9,170
Grand total	**53,000**

Dungeness River – Plan Formulation Scope of Work

Background: This task involves plan formulation section roles and responsibilities in establishing and documenting the without project conditions, identifying all potential alternatives to solve the identified problems, evaluating each alternative, and selecting the recommended plan. Alternatives will be formulated based on four criteria: completeness, effectiveness, efficiency, and acceptability. As formulation progresses, remaining alternatives will be evaluated in greater detail, eliminating alternatives until detailed evaluation is complete and a recommended alternative is selected for implementation. The formulation process will analyze all available information and data assembled from many different components of the study. The government and sponsor will jointly conduct plan formulation. Reference: ER 1105-2-100.

**All cost estimates assume one GS 09 planner working 85% of total project hours and one GS 09 planner working 15% of total project hours. Also includes 20 % S&A cost for Senior Planner and Supervisor oversight.

1. Study Initiation – Scoping, Project Management Plan Development, Feasibility Costs Share Agreement, Review Plan

Scoping
Determine what effort is involved, what studies will be required, and define the preliminary purpose, objectives, constraints, and assumptions.

PROJECT MANAGMENT PLAN
Responsibility for drafting major portions of the Project Management Plan and help compile information needed to complete the document.

FEASIBILITY COST SHARE AGREEMENT
Assist with negotiations and determine if deviations are needed from the original Feasibility Cost Share Agreement. Compile package with Project Management Plan and updated Feasibility Cost Share Agreement.

Review Plan
Draft Review Plan and coordinate its implementation with the appropriate Planning Center of Expertise.

2. Without Project and Future Without Project Conditions

Without-project conditions include documentation of all aspects relating to Ecosystem restoration based on all planning assumptions for ecosystem restoration future without project conditions. This documentation will also include the plan formulation foundation including background, objectives, constraints, assumptions, risk analysis, etc.

For ecosystem restoration it will be necessary to characterize the Dungeness River for existing condition and future without project condition assumptions related specifically to ecosystem restoration. Documentation in the without project conditions report will include characterization of future without project assumptions. Technical team will provide all supporting data. Assume Environmental Resource Branch is responsible for portions of the report that directly relate to National Environmental Protection Act compliance.

3. Measures Development

Measures and Preliminary Screening
Based on the without project condition, refine problems and opportunities, assumptions and constraints for ecosystem restoration and flood risk management. Outline plan formulation approach.

Document each measure/project site for purpose, location, jurisdiction, project elements, qualitative benefits, qualitative cost evaluation, real estate value and potential issues, and other project or location specific issues.

Define framework and lead preliminary screening of measures with design team and local sponsor. Preliminary screening of measures will be based on Corps authority/project purpose, compliance with existing laws and regulations, engineering feasibility/ability to achieve benefits for each project purpose. Preliminary screening will occur before the 10% cost estimate. Define combinability of each measure within the project purpose. Outline approach to forming alternatives for Ecosystem Restoration resulting in the National Ecosystem Restoration Plan.

4. Public Involvement

Public involvement consists of coordinating and facilitation presentations/meetings with the public to provide updates and solicit feedback on study proposals.

*Assumption is that sponsor will carry out most of the work associated with public involvement.

5. 10% Design and Cost Estimate of Measures

Participate in all 10% design meetings. Coordinate with design team and local sponsor through all design revisions to ensure achievable benefits, minimal construction costs and avoidance of other project-specific issues, i.e. real estate boundaries, environmental permitting, or potential Hazardous, Toxic, Radioactive Waste risks. Measures will be combined into alternatives and optimized. A second round of alternatives screening should be performed at the 10% level.

Cost estimates include 20 % S&A cost for Senior Planner and Supervisor oversight and 15 measures and alternatives for ecosystem restoration.

6. Final Array of Measures

A final array of measures will be developed. This final array will consist of measures that will later be combined into alternatives. These measures will be screened using data from the 10% design and cost estimate developed in task 5. Additional screening will also be performed for environmental impacts if necessary.

7. Alternatives Development, Analysis, and Screening

Alternatives for ecosystem restoration will be developed from the final array of measures in task 6. Measures will be combined into alternatives and analyzed so that measures compliment and optimize effectiveness. A preliminary screening will be performed on the alternatives for environmental impacts and any aspects that affect implementation. From this screening will be a preliminary identification of the National Ecosystem Restoration Plan.

8. 35% Design and Cost Estimate

Participate in all 35% design meetings. Coordinate with design team and local sponsor through all design revisions to ensure achievable benefits, minimal construction costs and avoidance of other project-specific issues. For the Alternative Formulation Briefing, a preliminary recommended plan must be identified through screening, optimization, and trade off analysis.

9. Alternative Formulation Briefing Read Ahead Report:

An Alternative Formulation Briefing Read Ahead Report is intended to provide a concise study overview, focused primarily on the Plan Formulation process that has been followed to create viable alternatives and ultimately identify Draft tentatively selected plans for ecosystem restoration. The goal is to identify and resolve any relevant policy concerns that would otherwise delay or preclude approval of the Draft Detailed Project Report.

A draft memorandum that documents the Alternative Formulation Briefing will be prepared by district and Division representatives during the conference.

10. Alternative Formulation Briefing:

The Alternative Formulation Briefing will be held in accordance with the instructions in Appendix O of ER 1105-2-100. The Alternative Formulation will be chaired by the Corps of Engineers Northwest Division's Chief, Planning Division, or the Division's planning program manager on behalf of the Chief, Planning Division. The Alternative Formulation Briefing will normally be held in the field, but it may also be held as a teleconference. Alternative Formulation Briefing read-ahead materials include: summary read-ahead including statement of an approved review plan and any draft documents team believes relevant to Alternative Formulation Briefing discussion.

11. Detailed Project Report/Environmental Assessment – Final Documentation:
Documentation of the recommended plan. Includes compilation of a 100% Draft Detailed Project Report/Environmental Assessment and all accompanying technical appendices, document revisions and final Draft Detailed Project Report/Environmental Assessment.

District Quality Control
District Quality Control begins with assignment of team members with the appropriate skills and expertise to perform the work. Team members review their own work and share it with others within their organization to obtain peer and supervisor review. All draft products and deliverables shall be reviewed as they are developed by the Project Delivery Team to ensure they meet project and customer objectives, comply with regulatory and engineering guidance, and meet customer expectations of quality. Informal reviews, consisting of presentations and discussions of interim documents, shall be documented with meeting minutes. More formal District Quality Control review will consist of appropriate senior staff members from the organization completing the task reviewing all technical work before it is submitted forward for Agency Technical Review.

Agency Technical Review
Agency Technical Review will assess whether the analyses presented are technically correct and comply with published Corps guidance (EC 1105-2-410 appendix C, page 4), and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. The current Agency Technical Review plan is to include at least 8 agency reviewers. This number is based on the disciplines required to develop

Tasks	Hours	Cost
1. Study initiation – Scoping, PMP development, FCSA, Review Plan	153	$11,165
2. Without project and future without-project conditions	240	$18,539
3. Measures Development	82	$6,298
4. Public Involvement	16	$1,229
5. 10% design and cost estimate of measures	10	$768
6. Final array of measures	32	$2,872
7. Alternatives development, analysis, and screening	120	$9,217
8. 35% Design and Cost Estimate	26	$1,996
9. Alternative formulation briefing read ahead report	68	$5,223
10. Alternative formulation briefing	22	$1,690
11. ATR/DPR/EA – final documentation and review	272	$20,997

the decision document. Management of the review team will be performed by the Planning Center of Expertise. The review team will be from outside Seattle District and the Agency Technical Review leader will be outside the Major Subordinate Command. Additionally, the model approval process will be included with the Agency Technical Review.

Grand Total for Plan Formulation SoW

*Cost estimates and include 20 % S&A cost for Senior Planner and Supervisor oversight.

Dungeness River – Economics Scope of Work

Primary duties and responsibilities: This task involves economics section roles and responsibilities. Specific tasks to be completed by the economics Project Delivery Team member(s) include the following:

1. Scoping & Meetings

Initial tasks include scoping of work to be completed under feasibility, followed by a site visit and a kick-off meeting with the Project Delivery Team (including Sponsor). Economist will participate in monthly Project Delivery Team meetings. Additional meetings may be necessary to develop problems, opportunities, objectives and constraints, to educate and keep informed on the environmental benefit measure methodology, and screening of management measures, if necessary. The environmental benefit methodology used must address planning objectives of the project. Relationships of management measures will need to be determined to develop alternatives, including the combinability and dependency among management measures, and various scales of management measures must also be considered in the analysis (scales of management measures are mutually exclusive).

2. IWR-Planning Suite Model

The certified version of the IWR-Planning Suite model will be used to combine the management measures into all possible plans and conduct the Cost Effectiveness and Incremental Cost Analysis (ED/ICA) on those plans. In order to perform the cost effectiveness and incremental cost analysis of alternative plans, environmental benefits and costs will need to be provided for the 10% level of design. Costs should include anticipated annual operations and maintenance, monitoring, real estate, and all other implementation expenses. Average annual costs and average annual benefits will be used for the Cost Effectiveness and Incremental Cost Analysis.

3. Cost Effectiveness and Incremental Cost Analysis

The Cost Effectiveness and Incremental Cost Analysis is conducted to evaluate the relative effectiveness and efficiency of restoration alternatives at addressing

environmental objectives of the project. The analyses provide a framework for comparing the differences in output across alternatives and the associated changes in cost. The analysis will be conducted in the following steps:

a) Tabulate average annual cost and average annual environmental outputs of each restoration measure
b) Identify any measures whose implementation is dependent upon implementation of others
c) Identify any measures that are not combinable with others
d) Identify all potential combination of measures (alternative plans)
e) Calculate cost and output estimates for each alternative plan
f) Identify any measures that provide the same output at greater cost than other combinations (non cost effective plans)
g) Identify any measures that provide less output at the same or greater cost as other combinations (non cost effective plans)
h) Evaluate changes in incremental costs and benefits for remaining combinations
i) Identify most efficient set of remaining combinations ("best-buys")
j) Display changes in incremental cost relative to benefit for best-buy combinations
k) Interpret results to inform selection of a preferred plan (identify National Ecosystem Restoration Plan)

4. Cost Effectiveness

An alternative plan is considered cost effective if it provides a given level of output for the least cost. Cost effectiveness is used to identify the least cost solution for each level of environmental output being considered. Incremental cost analysis compares the additional costs to the additional outputs of an alternative. Incremental analysis helps to identify and display variations in costs among different increments of restoration measures and alternative plans.

5. National Ecosystem Restoration Plan

Per ER 1105-2-100, the National Ecosystem Restoration Plan must be identified based on the Cost Effectiveness and Incremental Cost Analysis analysis, significance of ecosystem outputs, acceptability, completeness, effectiveness and efficiency, and risk and uncertainty considerations. Selecting the National Ecosystem Restoration Plan requires careful consideration that the plan meets planning objectives and constraints and reasonably maximizes environmental benefits while passing tests of cost effectiveness and incremental cost analyses, significance of ecosystem outputs, acceptability, completeness, effectiveness and efficiency. If the recommended plan is not the National Ecosystem Restoration Plan, such as a locally preferred plan, its selection must be justified. The reasons for such a selection should be clearly explained in the supporting documentation as well as the potential implications for cost sharing.

6. Economic Explanation:

The economist will explain the analyses and the results of the analyses in the appropriate section(s) of the feasibility report, and provide supporting documentation to the economic analyses. Economist will participate in any necessary reviews and resolve comments related to the economics that result from interim reviews by other Seattle District economists, District Quality Control, Agency Technical Review, and an Alternative Formulation Briefing meeting with Division.

Dungeness River Feasibility Study Economics Costs

Tasks	Cost
1. Meetings and Communication	8,548
2. Scoping	950
3. Set-Up of IWS- Planning Suite for ED/ICA	633
4. DQC	1,435
5. ATR – Address Comments	633
6. AFB – Meeting Preparation and Attendance, Address AFB Comments	633
7. Partial Review	802
8. 25% Contingency	3,647
9. 5% Supervision	730
Grand Total	**$18,962**

*22.5 days total (20.5 days for journeyman economist & 2 days for senior economist)

Assumptions

- Kick-off and site visit will take place and will take approximately 1 day.
- Feasibility will require 12 months until completion (i.e. approved report by Corps of Engineer Northwest Division), with a 1-2 hour Project Delivery Team meeting each month, with additional meetings estimated at an average of 6-7 hours per month, for a total estimate of one day/month for 12 months for meetings and coordination with Project Delivery Team members. This includes participation in the overall plan formulation process including benefit evaluations, screening of measures, and formulation of alternative plans.

- The following reviews are assumed: 1District Quality Control review and 1 ATR (agency technical review), with over the shoulder, partial review and spot checking to be performed by another District economist as needed.

- The following milestones are assumed: Feasibility Cost Share Agreement and Alternatives Formulation Briefing

Dungeness River – Archaeology and Built Environment Scope of Work

Primary duties and responsibilities: Cultural Resources are locations of past human activities on the landscape. The term generally includes any material remains that are at

least 50 years old and are of archaeological interest. Examples include archaeological sites such as lithic scatters, villages, procurement areas, resource extractions sites, rock shelters, rock art, shell middens; and historic era sites such as trash scatters, homesteads, railroads, ranches, logging camps, culturally modified trees, and any structures that are over 50 years old. Section 106 of the National Historic Preservation Act requires that federal agencies take into account the affect their actions (meaning those actions that involve federal land, use federal money, or require a federal permit) have on cultural resources that are listed in, or determined eligible for the National Register. Specific tasks to be completed by the cultural resource Project Delivery Team member(s) include the following:

1. Meetings and Communication

This task accounts for attendance at regular Project Delivery Team meetings, public scoping meetings (as needed), site visits, preparation and review of documents such as the project management plan and detailed scope of work. The cultural resource coordinator will be ultimately responsible for these tasks and keeping the architectural historian apprised of changes to project designs, schedules, and upcoming due dates. The architectural historian may attend these meetings at his/her discretion.

2. Field Investigations and Comprehensive Cultural Resource Report Preparation

During the Feasibility Stage, the entire area of potential effect will be inventoried via pedestrian survey and subsurface testing. The Area of Potential Effect includes the project footprint, access roads, staging areas, newly flooded areas, and any other areas that will be affected either directly or indirectly by the project. This cultural resource inventory will occur after the preferred alternative is taken to 35% design. Prior to reaching 35% design, the cultural resource specialist will review existing literature about the area including GLO plats, previous inventories, geomorphologic reports, and archival sources in order to determine which areas have the highest potential for cultural resources. This information will be included in the subsequent report and will be used to guide inventory efforts.

All cultural resources encountered during the inventory will be recorded and whenever possible the sites will be evaluated for the National Register through the preparation of a historic context statement.

The results of the cultural resource inventory will be compiled in a cultural resource report that meets the Department of Archaeology and Historic Preservation's standards. If sites are located during the inventory, the report will include the development of an historic context statement that evaluates those sites for eligibility in the National Register.

If eligible sites are found during the inventory, then the cultural resource coordinator will work with the environmental coordinator, the project manager and the local sponsor to either avoid any adverse impacts to the site or to develop a treatment plan to address those impacts.

3. Historic Structures Inventory and Report

During the Feasibility Stage, the architectural historian will scope the number and location of historic buildings and structures within the general project area. Also, any proposed levee re-alignments, setbacks, and modifications will be field checked in order to identify built environment impacts and indirect effects such as visual, associative, scale, auditory, etc.

If historic buildings and structures are located within the area of potential effect they will be recorded on Historic Property Inventory Forms and submitted to the Department of Archaeology and Historic Preservation. Whenever possible, this submittal will be combined with the cultural resource report referred to in section two. If a separate report is needed, the architectural historian will be responsible for this task.

4. SHPO and Tribal Coordination

Section 106 of the National Historic Preservation Act also requires Federal agencies to seek information from tribes likely to have knowledge of, or concerns with, historic properties within the proposed project's Area of Potential Effect. During the Feasibility Stage, the Corps will send letters to potentially affected tribes seeking assistance in identifying properties that may be of religious or cultural significance and may be eligible for the National Register of Historic Places, including Traditional Cultural Properties. The cultural resource report detailing the results of the inventory will be sent to the State Historic Preservation Office (SHPO) for their concurrence and to all affected tribes for their review and comment.

5. National Environmental Protection Act Documentation Support

The cultural resource coordinator will be responsible for working with the environmental coordinator and the architectural historian to prepare the cultural sections of the integrated feasibility document/Environmental Assessment. This will include revisions after the district quality control review and the Agency Technical Review. The cultural resource coordinator is responsible for ensuring that tribal concerns are addressed through the National Environmental Protection Act process and carried through to project design.

Dungeness River Feasibility Study Archeology/Cultural Resources Costs

Tasks	Total
1. Meetings and Communication	17,200
2. Field Studies and Cultural Resource Report	44,000
3. Historic Structures Inventory Report	16,000
4. SHPO and Tribal Coordination	800
5. NEPA Documentation Support	1,600

Grand total	$79,600

Assumptions

- Meetings and Communication:

  1 Project delivery team meeting for 2 hours for 3 years= 72 hours
  Historian attending half of these meetings= 40 hours
  Additional field visits, review of documents, and meeting preparation= 60 hours

- Field Investigations and Preparation of a Comprehensive Cultural Resource Report

  4 individuals in the field for 80 hours= 320 hours
  Completion of the report= 120 hours

- Historical Structures Inventory and Report

  3 days of inventory= 24 hours
  7 days of report write up and completion of HPIFs=56 hours

Dungeness River – Biologist Scope of Work

Primary duties and responsibilities: The biologist will coordinate and communicate all ESA concerns with appropriate Resource Agencies. The Corps and sponsor will determine how the environmental compliance requirements will be met for this project.

Tasks	Total
1. Meetings and Communication	9,965
2. Wetland Surveys	24,913
3. Develop Environmental Benefits	24,913
4. Prepare Draft Decision Document/EA	49,826
5. Publish Notice	3,737
6. Public Meeting	3,737
7. Final Document – Respond to comments	12,456
8. Finalize Document	12,456
9. Bio Op – Prepare BA, Consult with Services	18,685
10. Water Quality Certification – Prepare JARPA, Consult with Ecology	6,228
11. Prepare CZM	4,983
12. Section 404 – Prepare Consistency Determination	9,965
13. Review Plans and Drawings	7,474
14. Travel	4,000
15. Miscellaneous Expenses	2,000
Grand total	**$195,338**

Dungeness River – Geotechnical Scope of Work

Primary duties and responsibilities:

1. Seepage Analysis

For seepage analysis, the material used in the levee and its foundation must be determined. The existing project utilizes a semi-pervious section of the levee prism on the riverward side to reduce seepage potential through the levee. Performing new bore holes and test pits along the proposed setback alignment would gather data about the proposed foundation. With this information, underseepage could be determined. A seepage test ought to be performed to determine the hydraulic conductivity of levee and foundation material to be used. Based on hydraulic conductivity, seepage flow rates may be determined. It may also be possible to infer soil properties based on a description provided from the boring logs. Although this would not be as precise, it should be adequate.

2. Settlement Analysis

Settlement analysis requires knowledge of the levee's base foundation material in the proposed alignment. A foundation exploration was performed in 1962, prior to construction, for the existing levee alignment, which included 40 bore holes and test pits. Although this data will be useful, a series of new bore holes and test pits must be explored along the proposed alignment to obtain accurate results.

Dungeness River Feasibility Study Geotechnical Costs

Tasks	Total
1. Labor	12,900
2. Drilling & Soil Tests	6,000
3. Create fragility curve	2,000
4. 5% Supervision	945
5. 10% Contingency	1,890
Grand total	**$24,000**

Dungeness River – Hydraulic Engineer Scope of Work

The Hydraulic Engineer will conduct all hydraulic modeling related to project alternatives. This information will be included in the decision document.

Tasks	Total
1. PROJECT MANAGMENT PLAN	232
2. Goals and objectives	6,960
3. Plan Formulation	20,000
4. Tech Memo to update existing conditions for alternatives analysis	1,856
5. Alternatives Discussion/meetings	1,160
6. Econ/Environmental benefits	928
7. Value Engineering	928
8. Decision Document	4,640

9. Technical Reviews	2,784
Grand total	**$40,000**

Define existing levee performance (overtopping frequency) based on R&U analysis using critical levee section, available flood frequency curves, geomorphic studies, and flood modeling. It is assumed that the USBR study is adequate to perform this work. Provide tech memo for PDT. Requires geotech input. (Develop HEC-RAS floodplain models for alternatives (if not provided by sponsor) to inform econ analysis using R&U approach). Brief evaluation of geomorphic hazards and provide initial riprap design for levee designers.

Assumptions:

1. Alternatives will require .5 days/month over two year schedule.
2. Geomorphic investigation not needed for feasibility phase, but will be conducted at E&D phase to verify that off-site impacts are not a concern.
3. No contingency in estimate.
4. No eco-systems benefits H&H modeling (but this would be good to consider).

APPENDIX 2
DUNGENESS RIVER ECYOSYSTEM PROJECT RISK REGISTER

#	Risk Description/ Impact	Probability	Impact	Strategy	Response	Responsible Person	Mitigation Strategies	Status
1	Adjacent landowners concern that new levee decreases level of protection due to higher Corps standards	V	H	AV	Yes	HH, Civil, PM	In analysis of with project conditions, consider whether new levee puts increased pressure on upstream or downstream areas	
2	Total project cost exceeds $5 million federal spending limit authorized under PSAWR	L	H	TR	Yes	PROJECT DELIVERY TEAM, NFS	Identify cost estimates at start of study. Sign FEASIBILITY COST SHARE AGREEMENT and assess design and costs afterwards. Potentially transfer project into Puget Sound Nearshore Restoration Program if over limit or have sponsor finish project on their own.	Open
3	Hydrologic analysis finds setback level of protection lower than current level of protection	U	H	TR	Yes	PROJECT DELIVERY TEAM, NFS	Identify forecasted flood risks at start of study, identify if new levee increases flood risk r at schoolhouse bridge or elsewhere	
4	Environmental benefits of setback not significant enough to justify the project	U	H	AC	Yes	PM	Identify at start of study whether County has interest, insure understanding of financial responsibilities and risk	Open
5	Lack of Public support due to loss of access for fishing and walking	U	M	AV	Yes	NFS, PROJECT DELIVERY TEAM, PAO	Strong and early public involvement with recreation/fishing communities and general public	
7	Cost estimate error causes the Corps not to request sufficient funds to award the construction contract, delaying the project	U	H				Identify cost estimates at start of study, NFS and PROJECT DELIVERY TEAM work closely to identify accurately estimate all project costs	
8	Schedule delay because PROJECT DELIVERY TEAM member are not available to make adequate progress due to conflicting priorities or low staffing	U	M				Work closely with PROJECT DELIVERY TEAM to identify anticipated staffing requirements, replace PROJECT DELIVERY TEAM members if needed	
7	FED or non federal Funding not available in one FY	U	H	AC	Yes	NFS	NFS needs to keep regional, congressional support; sponsor needs to continue capital funding stream.	

Probability	
V	Very Likely
L	Likely
U	Unlikely
Impact	
H	High
M	Medium
L	Low
Strategy	
AC	Accept
AV	Avoid
TR	Transfer

Acronym	Office
NFS	Non-federal Sponsor
RE	Real Estate
PM	Project Manager
HH	Hydraulics & Hydrology
Civil	Civil Engineering
ERS	Environmental Resources
PDT	Project Development Team
PAO	Public Affairs Office
Geotech	Geotechnical Engineering