SKAGIT RIVER FLOOD RISK MANAGEMENT AND ECOSYSTEM RESTORATION PROJECT
FEASIBILITY STUDY
SKAGIT COUNTY, WASHINGTON

PROJECT MANAGEMENT PLAN

***Prepared By*:**

U.S. Army Corps of Engineers

Seattle District

***In Coordination With*:**

Skagit County

Revised September 2009

US Army Corps of Engineers ®
Seattle District

SECTION 1 – INTRODUCTION

1.1 Introduction

This document is a revised Project Management Plan (PMP) for the Skagit River, Washington, Flood Risk Management and Ecosystem Restoration Project Feasibility Study. It is a revision of the revised PMP attached to the October 12, 2007 Project Management Plan. It covers study tasks and activities that will occur during the FY09 to completion of the Feasibility Study Report and associated Environmental Impact Statement resulting in the national economic development (NED) and locally preferred (LPA) plans.

The revised PMP identifies Federal and non-Federal funding requirements and assigned responsibility for performing identified studies and activities required to complete the feasibility study phase. The PMP provides a detailed task and schedule for the expenditure of the Federal funds and a comparable level of non-Federal cash and sponsor in-kind services. The attached schedule assumes the timely availability of full Federal and non-federal funding. The current feasibility study was initiated in 1997.

1.2 Project Area Location

The Skagit River basin is located in northwest Washington State and has a total drainage area of 3,115 square miles. The Skagit River originates near the 8,000-foot level of the Cascades Mountains in British Columbia, Canada and flows south and then west to the Skagit delta where it discharges through two distributaries – the North Fork and South Fork – to Skagit Bay. The major cities on the Skagit River delta – Mount Vernon, Burlington, Sedro-Woolley, and LaConner – lie about 60 miles north of Seattle, Washington. The entire American portion of the basin is within Washington Congressional District No. 2. The basin extends about 110 miles in a north-south direction, reaching 28 miles into British Columbia, and approximately 90 miles in an east-west direction between the crest of the Cascade Mountains and Puget Sound. The project area for the feasibility study encompasses the Skagit River watershed from Ross Dam reservoir to Skagit Bay. The Skagit River floodplain contains about 22,000 acres east (upstream) of Sedro-Woolley (RM 22.4) and 74,000 acres west (downstream) of Sedro-Woolley. Principal tributaries of the Skagit River are the Sauk, Baker, and Cascade Rivers. Seattle City Light operates three hydroelectric dams on the Upper Skagit River (Ross, Diablo, and Gorge), and Puget Sound Energy operates two hydroelectric dams on the Baker River (Upper Baker and Lower Baker). USACE has a federally authorized flood risk management project at the Upper Baker Dam, and coordinates flood storage at Ross Dam.

1.3 Project Background

A USACE Reconnaissance Report was prepared in May 1993, identifying a Federal interest in pursuing the feasibility phase study to investigate, in detail, flood risk management measures in the Skagit River basin. In July 1997, Skagit County and USACE executed a Feasibility Cost Sharing Agreement (FCSA) to initiate feasibility studies. The preliminary project plan described in the report included the following: improving the existing levee system along the lower river to provide a high level of protection (100-year) for urban areas of the Skagit River delta, with lesser

protection for rural areas, providing levee overflow sections or control structures at critical locations in rural areas designed to permit levee overtopping without catastrophic failure, and constructing new off-river levees or dikes to channel overflow water away from developed urban areas. In May 2003 the 1997 FCSA was amended to increase the sponsor work-in-kind. In 2003 Skagit County requested a more extensive analysis of the extent to which existing hydroelectric dams in the upper basin could provide additional flood control storage, thereby reducing flood damages in the floodplain. This interest and awareness was initially triggered by pending Federal Energy Regulatory Commission (FERC) relicensing of the Puget Sound Energy Baker River Hydroelectric Project dams located in the upper basin. In February 2004 the FCSA was amended to provide interim funding for the reevaluation of the hydrology and hydraulics (H&H) for the Skagit Basin, and to fund studies through the evaluation of measures and the selection of preferred alternatives. Funding levels under this FCSA were exhausted prior to completion of the without project report due to extensive discussions with the County over the USACE H&H results. This required the execution of an interim FCSA in April 2007 to fund a re-scoping of the remaining work needed to complete feasibility, including the completion of the without-project report and evaluation of measures and alternatives.

The original focus of the feasibility study, as scoped in the June 1997 PMP, was to formulate solutions to severe flooding problems in the study area. During execution of the early technical studies, the need for ecosystem restoration planning was identified to address new environmental challenges including recent listings of endangered species such as Puget Sound Chinook salmon and bull trout, and the potential listing of Coho salmon and steelhead in the near future. USACE and Skagit County determined that the incorporation of ecosystem restoration features into the design of a flood risk management solution was desirable to developing an acceptable and responsible plan. The addition of ecosystem restoration as a project purpose is consistent with USACE policy to insure compatibility between projects and the environment (Reference: USACE Environmental Operating Principles). The amended FCSA in 2004 included funds for environmental restoration.

1.4 Study Purpose

The purpose of the feasibility study is to formulate and recommend a comprehensive flood hazard management plan for the Skagit River floodplain that will reduce flood hazards and damages in the project area. The feasibility study will also investigate measures to restore ecosystem functions and processes to benefit fish and wildlife in the project area. The feasibility phase of project development involves technical studies to assess the effectiveness, efficiency, acceptability, and completeness of a range of alternative solutions to serious flooding problems, potential early action flood damage reduction measures, and ecosystem restoration opportunities in the study area. The implicit intent is that the recommended plan will have broad federal and non-federal support, will provide critically needed flood damage reduction benefits at an affordable cost in a reasonable time frame, will provide cost-effective ecosystem restoration benefits in the project area, and will subsequently be authorized and implemented.

1.5 Purpose and Scope of the PMP

The purpose of a PMP is to be a roadmap for quality project delivery, guiding the project delivery team through the development of a Feasibility Report and environmental documentation that describes the formulation and evaluation of a flood risk management project and supporting

ecosystem restoration projects. The PMP defines the scope of the study, tasks, and schedule for completing the feasibility study. It also serves to allocate responsibilities and costs between the USACE and Skagit County and can be used to justify any necessary future negotiated modifications. The PMP provides a common understanding between the sponsor and USACE as to needs and expectations for project delivery. Specifically, the PMP addresses the following:

- Study tasks as well as responsibility for their accomplishment.
- The estimated cost of individual study tasks and total study cost, including the negotiated cost of work items to be accomplished by the sponsor as in-kind services.
- USACE and other professional criteria to assess the adequacy of the completed work effort, including references to regulations and other guidance that will be followed in performing and evaluating the tasks.
- The schedule of performance and milestones (i.e., key decision points, including in-progress reviews, issue resolution conferences, etc.).
- The specific coordination mechanism between USACE, the sponsor, and tribal nations within the basin.
- Procedures for reviewing and accepting work as an in-kind credit performed by the sponsor.
- Technical review requirements for study products
- Public involvement

The PMP was developed consistent with the requirements of the USACE Engineer Regulation (ER) 1105-2-100, Periodic Inspection and Continuing Evaluation of Completed Civil Works Structures, ER 5-1-11, U.S. Army Corps of Engineers Business Process, and related guidance. The Project Delivery Team and Executive Committee will use this PMP to facilitate effective communication and oversee the execution of study tasks within time and budget. Because the planning process is dynamic, the stated tasks, scope, budget, and schedule for completion may change. Any proposed changes in the PMP will be fully coordinated with the Executive Committee in accordance with the terms of the FSCA and the PMP will be updated and the FCSA amended as appropriate.

1.6 Customer

Congressional District:	WA-2
U.S. Representative:	Rick Larsen
U.S. Senators:	Maria Cantwell
	Patty Murray

1.7. Authority

Authority for the feasibility study is derived from Section 209 of the Flood Control Act of 1962 (Public Law 87-874).

1.8 Project Scope

Provide all services required to prepare Feasibility Study documentation recommending NED plan and LPA plan and Environmental Impact Statement in support of the National Environmental Policy Act (NEPA).

1.9 Project Goals

The goals of the project are:

- Provide complete documentation of all analysis used by decision-makers while executing a robust public involvement plan.
- Prepare a possible phasing scheme of project deliverables.
- Provide reasonably accurate cost estimates for projects identified in the plan.

1.10 Assumptions

- The existing H&H model is sufficient.
- Sufficient funding is available to complete tasks within the designated schedule.

In order to reduce the risk of not achieving project milestones within the specified schedule due to lack of funding, an associated schedule of deliverables based on historic funding levels will be prepared and presented in the appendix.

1.11 Major Deliverables

- Feasibility Scoping Meeting
- Without Project Condition Report
- Measures Report
- Range of Alternatives Report
- Dam Waiver Package (if necessary)
- Alternative Formulation Briefing
- Draft Feasibility Report/Draft Environmental Impact Statement Package
- Final Feasibility Report/Final Environmental Impact Statement Package

SECTION 2 - PROJECT MANAGEMENT

2.1 Project Delivery Team

The Project Delivery Team (PDT) is jointly led by the USACE Project Manager (PM) and the Skagit County PM. The USACE PM will be responsible for overall day-to-day management of the study. She will maintain close coordination with the PDT, to ensure timely execution of the study and compliance with the FCSA and PMP. The USACE PM and Environmental Coordinator will meet and confer with the Skagit County PM on a regular basis throughout the study to discuss study progress.

The PDT is composed of qualified staff from the Seattle District and Skagit County supplemented by various consultants, contractors and regulatory agencies, as appropriate. The PDT members are listed in Table 1. Team meetings will be scheduled periodically, as required by study activities or issues.

Table 1 – Feasibility Study Project Delivery Team

Discipline	Name	Office Symbol/Agency	Telephone Number
Project Manager	Amy Gibbons	PM-CM-CJ	(206) 764-3550
Assistant Planner	Kristen Kerns	PM-PL-PF	(206) 764-3474
Project Manager – Skagit County	Lorna Ellestad	Skagit County	(360) 419-3421

Discipline	Name	Office Symbol/Agency	Telephone Number
Public Works – Skagit County	Dan Berentson	Skagit County	(360) 419-3461
Plan Formulator	Linda Smith	PM-PL-PF	(206) 764-6721
Environmental Coordinator	Hannah Hadley	PM-PL-ER	(206) 764-6950
Fisheries Analysis	TBD	PM-PL-ER	(206) 764-
Archeologist	Ron Kent	PM-PL-ER	(206) 764-3576
Historian	Lauren McCroskey	EC-DB-AS	(206) 764-3538
Hazardous, Toxic, & Radiological Waste	TBD	EC-TB-ET	
Geotechnical – Soils	TBD	EC-DB-CS	
Hydrology and Hydraulics	Karl Eriksen	EC-TB-HE	(206) 764-6892
Geomorphology	Karl Eriksen	EC-TB-HE	(206) 764-6892
Civil Design	TBD	EC-DB-CS	
Structural Design	TBD	EC-DB-AS	
Mechanical Design	TBD	EC-DB-EM	
Electrical Design	TBD	EC-DB-EM	
Value Engineer	TBD	EC-DB	
Economic Evaluation	TBD	PM-PL	(206) 764-3647
Cost Engineering	Tim Sullivan	EC-CO-CA	(206) 764-3672
Real Estate	Kevin Kane	RE-AQ	(206) 764-6652
Real Estate - Skagit County	Lorna Ellestad	Skagit County	(360) 419-3421
Survey & Mapping	Kurt Noble	EC-TB-SY	(206) 764-3535
Survey & Mapping - Skagit County	Bob Prater	Skagit County	(360) 336-9400
Geospatial Data & Systems	Stephen Jesse	IM-PI	(206) 766-6455
GIS Coordinator - Skagit County	Geoff Almvig	Skagit County	(360) 336-9368
Legal Issues	Janet Smith	OC	(206) 764-6079
Program Budget	Patricia Bauccio	PM-CU	(206) 764-3785
Study Budget & Funding - Skagit County	Lorna Ellestad	Skagit County	(360) 419-3421
Budget Analyst	Camille Wilson	PM-CP-CM	(206) 764-3548
Contracting Issues	Contracting Div. staff	CT	(206) 764-3518
Public Affairs Office	Nola Leyde	PA	(206) 764-6896
Public Outreach-Skagit County	Dan Berentson	Skagit County	(360) 419-3461

2.2 Government Entities and Stakeholders

There are a number of stakeholders associated with this project, many with multiple interests. The following stakeholders have had direct involvement in the study:

- Washington Department of Ecology
- Washington Department of Natural Resources
- Washington Department of Fish and Wildlife
- Washington Department of Transportation
- Upper Skagit Tribe
- Skagit River System Cooperative (Swinomish and Sauk-Suiattle tribes)
- National Marine Fisheries Service
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- Puget Sound Energy
- Seattle City Light
- Burlington Northern-Santa Fe Railroad
- Diking District 12

- ❑ Diking District 17
- ❑ Diking District 3
- ❑ Diking District 1
- ❑ Diking District 22
- ❑ Diking District 20
- ❑ City of Mount Vernon
- ❑ City of Burlington
- ❑ City of Sedro Woolley
- ❑ City of Anacortes
- ❑ Town of LaConner
- ❑ Town of Hamilton
- ❑ Town of Lyman
- ❑ Town of Concrete
- ❑ Skagit County Flood Control Zone District Committees
- ❑ Salmon Recovery Funding Board
- ❑ The Nature Conservancy
- ❑ Skagit Watershed Council
- ❑ Others

2.3 Executive Committee and Vertical Team

Members of the Skagit Feasibility Study Executive Committee (EC) are identified in Table 2. The purpose of the EC is to discuss project direction and high level project administrative and technical guidance. Meetings of the EC will be scheduled, at a minimum, on an annual basis. More frequent meetings will be scheduled, as required.

Table 2 – Feasibility Study Executive Committee

Name	Position
Ken Dahlstedt	Skagit County, Chair, Board of Commissioners
Dan Berentson	Skagit County, Public Works Natural Resouces Division Manager
Colonel Anthony Wright	USACE, Seattle District Commander
Mona Thomason	USACE, Chief, Planning Branch, Seattle
Amy Gibbons	USACE, Project Manager, Civil Projects, Seattle
Lorna Ellestad	Skagit County, Public Works Project Manager

Members of the Skagit Feasibility Study Vertical Team include the Seattle District Commander, Chief of Planning, Chief of Program and Project Management, the Project Manager, Division Planning, and Headquarters Planning. Technical management will be included in the Vertical Team from the District, Division, and Headquarters as appropriate. The Vertical Team resolves issues of USACE policy. They are brought into the study for the Feasibility Scoping Meeting (FSM), the Alternative Formulation Briefing (AFB), and for Issue Resolution Conferences (IRC).

2.4 Tribal Coordination

USACE has a trust obligation to act in the best interest of local tribes. Frequent tribal coordination is necessary to ensure that project outcomes are formulated and implemented in a

way that does not negatively impact tribal resources. USACE and Skagit County PMs will meet with tribal representatives no less that twice per year to provide information as to the progress of the project. Additionally, due to the nature of tribal concerns with regard to the project, each tribe, as well as the Skagit River Systems Cooperative will be invited to participate on the Environmental Advisory Committee.

2.5 Environmental Advisory Committee

Members of the Environmental Advisory Committee will be chaired by the USACE environmental coordinator and will include representatives from Skagit County, the tribes, and resource agencies having regulatory or natural resource jurisdiction in the river basin. The purpose of the committee is to guide the USACE alternative formulation and impact analysis process, minimize potential project impacts through design modifications, identify mitigation requirements, propose restoration projects, and review environmental documents.

Table 3 – Environmental Advisory Committee

Name	Position
Amy Gibbons	USACE, Project Manager, Civil Projects, Seattle
Lorna Ellestad	Skagit County, Public Works Project Manager
Hannah Hadley	USACE, Environmental Coordinator, ERS, Seattle
TBD	USACE, Biologist, ERS, Seattle
Jeff McGowan	Skagit County Salmon Habitat Specialist
Tom Sibley	National Marine Fisheries
Joel Moribe	National Marine Fisheries
Chuck Steele	WA Department of Ecology
Alex Uber	WA Department of Fish and Wildlife
Martha Jensen	US Fish and Wildlife Service
Krista Rave-Perkins	US Environmental Protection Agency
Kathy Kilcoyne	US Natural Resource Conservation Service
Gretta Movassaghi	US Forest Service
TBD	WA State Historic Preservation Office
Stan Walsh	Skagit River Systems Cooperative
Larry Wasserman	Swinomish Tribe
TBD	Sauk-Suiattle Tribe
Jon Paul Shanahan	Upper Skagit Tribe
Terrance Stevens	Padilla Bay Nat. Estuarine Research Reserve

2.6 Roles and Responsibilities

2.6.1 Federal responsibilities

USACE will provide technical expertise in the areas of plan formulation, engineering, environmental, and economic analysis for the purpose of furthering the project during all phases. USACE will also provide project management and guidance, such as coordination with agencies and local groups, attendance at site visits, technical review, and legal guidance.

2.6.2 Sponsor responsibilities

The County will, at minimum, provide project management support, such as attending regular meetings with the project team, site visits, technical reviews, and guidance on local project goals. The County should inform the project team of local issues that may affect the

viability of the project. The County should also provide all necessary lands, easements, rights of way, relocations and disposal areas (LERRD) and rights of entry (if necessary) for the project site. The County shall provide 50% of the total feasibility study costs annually, in accordance with the FCSA and PMP. The nonfederal match may be provided as work in kind, provided it concurs with the elements of the PMP and/or is mutually agreed to in writing by USACE. The County will provide real estate support for the preliminary evaluation of measures, provide public involvement opportunities, and develop alternative designs and costs.

2.7 Status Reporting

The USACE PM and the County PM will each prepare and distribute quarterly study status reports for their respective jurisdictions, with appropriate input from the PDT. The County's reporting will be used to provide documentation and crediting of County work-in-kind services. The reports will identify progress of work items during the period, projected and actual costs through the last reporting period, as well as document unresolved conflicts or policy issues requiring action by the Executive Committee.

2.8 Review and Acceptance of Work

Work developed by the USACE and County technical staff will have quality review as appropriate. At minimum, each product of the project will be reviewed by USACE and County staff prior to finalization or publication. Work-in-kind provided by the sponsor and contract work will be reviewed by the USACE and appropriate USACE technical office prior to acceptance. All products will follow USACE format (if available) and will be subject to the USACE Agency Technical Review (ATR) requirements for decision documents. Technical reviewers will be selected by the USACE Centers of Expertise. Additionally, project work products may be reviewed for content and acceptance of methodologies by resource agencies, tribes and local jurisdictions, as appropriate, prior to product finalization and publication.

Disagreements concerning crediting of work will be brought before the EC for resolution. An external Peer Review will be performed by a panel of technical experts for all aspects of the draft feasibility report/EIS prior to finalization. (The Peer Review plan is attached as an appendix.)

SECTION 3 – COST SHARING AND WORK BREAKDOWN STRUCTURE

Section 3 represents a description of the work breakdown structure and a summary of federal, non-federal cost sharing requirements.

3.1 Feasibility Study Work Breakdown Structure

For accounting and administrative purposes, all analysis of flood risk management and ecosystem restoration measures and alternatives performed as part of the overall feasibility study, including in-kind services, will be organized under a "Code of Accounts" format as required by ER 1105-2-100. This Code of Accounts has been broken down into a series of sub-

accounts covering work activities performed by a specific technical or administrative work element within the Corps. Functional elements responsible for work under each account code are described in detail later in the PMP. The Code of Accounts organization of tasks is called a Civil Work Breakdown Structure (CWBS). This CWBS is used for accounting and administrative purposes to track obligations and expenditures within the Corps of Engineers Financial Management System (CEFMS).

3.2 Feasibility Cost Sharing

The amended PMP estimates the cost of completion of the Feasibility Study and EIS to be $5,252,500. The total project cost share is to be split 50/50 by each jurisdiction. The non-federal cost share may be provided with in-kind services as shown in the PMP. Crediting will be limited to those elements that are part of the approved PMP. Any changes in work effort must be agreed to by both USACE and the County prior to work being accomplished, and must be documented in an amendment to the PMP.

SECTION 4 - PLAN FORMULATION, SCHEDULE, WORK TASKS

The following is a general description of the plan formulation process and study phases that need to be completed for the feasibility study. Reference: ER 5-1-11, Program and Project Management, 17 August 2001; ER 1105-2-100, Planning Guidance Notebook, Policy Guidance Letter No. 52, Flood Plain Management Plan, December 8, 1997.

The project will be completed within the project schedule identified below. Funding will determine the level of funding spent on advancing design. The funding scheme designed below will produce a robust level of design and documentation for the project. This robustness will reduce costs during subsequent phases of the GI because of the advanced level of design completed for the project and the permit-level analysis of alternatives.

Should federal funding fall short of the capacity identified below, the project will have to reduce effort in high cost areas. The project will continue to comply with regulatory and policy requirements for such Feasibility Study. However, the level of detail achieved through design and the subsequent environmental analysis will need to be scaled back to reflect the reduction in funding. The results of this reduction are anticipated to result in increased efforts needed in subsequent phases of the GI. The environmental analysis would be comprehensively focused on cumulative impacts rather than project-specific permitting detail.

Regardless of funding, it is anticipated that this project will provide substantive, basin-wide analysis to allow decision-makers the ability to understand the cumulative impacts of the long term implementation of the National Economic Development Plan that is recommended by the Feasibility Study. The project will employ accepted scientific practices for cumulative environmental impacts and data generated will inform any mitigation planning. Furthermore, a possible recommended mitigation strategy will incorporate the cumulative impacts analysis in determination of the best ecological approach for the basin based on implementation of the entire plan, taking a macroscopic look at the plan, rather than solely focusing on project specific

impacts.

4.1 Quality Assurance

Completed study products, and processes, whether produced by the USACE, sponsor, or a consultant, require District Quality Control (DQC), and an ATR. Technical reviewers are selected by USACE Centers of Expertise for the particular technical area, and are funded as a cost shared study cost. Technical reviewers will insure that study products meet USACE criteria and quality, that appropriate models are used, and that data is interpreted correctly. Policy review remains with the Vertical Team, including Division and Headquarters staff.

4.1 Deliverables and Schedule

A. Peer Review Plan – June 2009

4.1 Responsibilities

A. Federal – Project management and preparation
B. Non-federal – Project management and review

4.2 Feasibility Scoping Meeting

Feasibility Scoping Meeting – The Feasibility Scoping Meeting (FSM) is an opportunity for the Corps Vertical Team (District, Division, Headquarters) and the County to evaluate whether the without project conditions are correctly stated, measures under consideration are adequate, and whether the screening criteria is sufficient. The FSM process results in a memorandum noting any Vertical Team concerns, and ultimately providing assurance that the feasibility evaluation process is adequate. Completed, technically reviewed Without Project Condition Reports are required for the Feasibility Scoping Meeting with USACE Headquarters on the plan formulation process.

4.2 Deliverables

A. Feasibility Scoping Meeting Read-Ahead
-Includes newsletter release
B. Feasibility Scoping Meeting

4.2 Responsibilities

A. Federal – Analysis, project management, preparation, and review of all deliverables, conduct meeting.
B. Non-Federal – Project management and review of deliverables and publication of newsletter releases.

4.3 Without Project Condition

The without project condition, and the future without project condition sets the baseline for the comparison of the efficiency and impacts of all alternatives. The PDT develops a future without project condition based on the economic life of the project (50 years). The future without project condition includes current trends and the inclusion of generally accepted changes in policy, laws, and development levels, etc. These assumptions are based largely on Skagit County planning documents.

Reports Completed:

1. Environmental (2009)
2. Geomorphic (2009)
3. Hydrology and Hydraulics (H&H) (2004)
4. Economics

Reports to be Completed/Updated:

1. Levee Risk and Reliability Analysis
2. H&H
3. Economics

4.3 Deliverables and Schedule

A. Levee Risk and Reliability SOW and Drilling Plan – September 2009
B. Levee Risk and Reliability Analysis Report – 1st Quarter 2010
C. H&H Without Project Condition Report – 1st Quarter 2010
D. Economics Without Project Condition Report –2nd Quarter 2010
E. Feasibility Study Without Project Condition Report – 2nd Quarter 2010
-Includes newsletter release

4.3 Responsibilities

A. Federal – Analysis, project management, preparation of Levee Risk and Reliability and Economics reports, and review of all deliverables.
B. Non-Federal – Project management, preparation of H&H and Feasibility Study Without Project Condition Report, and review of deliverables and publication of newsletter releases.

4.4 Measures Analysis

The purpose of the evaluation and screening of measures is to methodically narrow down the range of individual project elements so that funding and analysis is focused on those measures that have the highest potential to qualify as a Federal interest. A Federal interest for flood risk management measures is determined by a positive benefit-to-cost ratio, environmental acceptability, engineering feasibility, acceptable risk, and acceptable socio-economic impacts. Each measure can have multiple designs with corresponding differences in costs and impacts.

Potential ecosystem restoration measures are being considered to meet potential project mitigation needs as well as to provide true ecosystem restoration. In order to count as restoration, the projects need to exceed the recommended plan's mitigation requirements. Ecosystem restoration measures are evaluated for their ecosystem benefits versus costs, and their compatibility with flood risk management projects. While a benefit-to-cost ratio is not used, consideration is given to the amount and types of benefits versus costs to optimize Federal investment and environmental output. Restoration is tied to flood risk management measures where possible.

Measure detail in the Measures Report will be to the 10% design level for all structural measures included in the report, as appropriate. Additionally, ecosystem restoration measures will be described to the greatest detail available. Such discussion may be identification of opportunities

or details of high value habitats and restoration methodologies.

The PDT will develop screening criteria to apply to the measures under consideration by the PDT. Screening will occur on a quantitative basis to determine suitability of measures moving forward for consideration in alternatives formulation. This screening will be performed after completion of the Measures Report and will be based on benefit-to-cost ratio, environmental acceptability, engineering feasibility, acceptable risk, and acceptable socio-economic impacts.

The remaining measures are a complete list of feasible measures that the PDT will use as a foundation for grouping measures into alternatives. Measures will be grouped based on best hydrologic performance and compatibility to achieve the purpose and objectives of the project. Once the measures are grouped, they will be compiled as a Range of Alternatives suitable for evaluation against the objectives of the project. It is possible that certain measures are determined by the Corps to be excluded from further consideration but because of sponsor support for the measure and potential for the measure to be included in the Locally Preferred Alternative, (LPA) measures not supported by the Corp may be carried for further consideration. These measures screen out by the Corps but furthered for consideration for inclusion in the LPA will be expressly identified as such.

4.4 Deliverables

A. Measures Report with Economic Damages and Environmental Description–
-Includes newsletter release

B. Screening Technical Memo
-Includes release of newsletter

4.4 Responsibilities

A. Federal – Economic and environmental analysis, project management, refinement of measures, preparation of restoration discussion, economic and environmental impacts, preparation of the Screening Technical Memo and review of all deliverables.

B. Non-Federal – Project management, 10% design of all structural measures, preparation of H&H discussion, and review of deliverable and publication of newsletter releases.

4.5 Future Without Project Analysis (No-Action Alternative)

The PDT will direct technical experts for each analytical discipline to prepare an analysis of impacts of the No Action

4.5 Deliverables

A. Environmental Future Without Project Condition Report
B. H&H Future Without Project Condition Report
C. Geomorphology Without Project Condition Report
D. Economic Future Without Project Condition Report

4.5 Responsibilities

A. Federal –Project management, preparation of environmental geomorphology

and economic reporting, and review of all deliverables.
B. Non-Federal – Project management, preparation of H&H reporting and review of deliverables.

4.6 Alternative Formulation

Measures will provide the basis for alternative development. The PDT will investigate group various measure together to optimize hydrologic and hydraulic output while minimizing environmental impacts and maximizing economic damage reduction. Additional design may be required to bridge any design gaps once the 10% design measures are combined into alternatives.

4.6 Deliverables

A. Range of Alternatives Report
-Includes release of newsletter

4.6 Responsibilities

A. Federal – Analysis, project management, preparation, and review of all deliverables.
B. Non-Federal – Project management and review of deliverables and publication of newsletter releases.

4.7 NEPA Scoping

In compliance with National Environmental Policy Act (NEPA), the PDT will submit a Notice of Intent (NOI) to prepare and Environmental Impact Statement (EIS) for the Skagit River GI feasibility phase. The NOI will trigger a required 30 day period for agencies and citizens to comment on the Purpose and Need of the project, the inventory of baseline conditions, the Measures Report and Future without Project Report, and the Range of Alternatives.

As part of the scoping process, it is anticipated that the PDT will conduct a series of public open houses in locations around Skagit County to inform the public and solicit comments. Additionally, the PDT will coordinate and present materials to environmental regulatory agencies with special interest in the project, via the Environmental Advisory Committee, as part of early and consistent coordination on environmental regulatory issues and ecosystem restoration aspects of the project.

This process will result in a Scoping Report documenting the scoping processes legal sufficiency to comply with NEPA as well as providing a log of comments submitted for ongoing review and reference by the PDT.

4.7 Deliverables

A. Notice of Intent
B. Three Public Meetings
-Includes release of newsletter
C. Environmental Advisory Committee Meeting
D. Scoping Report

4.7 Responsibilities

A. Federal –Project management, preparation, and review of NOI and Scoping Report. Lead Environmental Advisory Committee Meeting.

B. Non-Federal – Project management and review of deliverables and publication of newsletter releases. Provide materials for and lead Public Meetings.

4.8 Alternatives Analysis

The PDT will direct technical experts for each analytical discipline to prepare an analysis of impacts of the project consistent with the level of detail known at the time about each alternative. Impact analysis will be consistent to support future alternative refinement, preferred alternative decision-making, required economic justification, and regulatory review of NEPA documentation. Each discipline will follow guidance consistent with the latest Engineering Regulations furnished by the USACE at the time the analysis is completed.

4.8 Deliverables

A. Environmental Alternative Analysis Report
B. H&H Alternative Analysis Report
C. Geomorphology Alternative Analysis Report
D. Economic Alternative Analysis Report
E. 1st NEPA Public Open House including Report

4.8 Responsibilities

A. Federal –Project management, preparation of environmental, geomorphology and economic reporting, and review of all deliverables.

B. Non-Federal – Project management, preparation of design and H&H reporting, review of deliverables, and materials and leadership of Public Open House.

4.9 Hybrid Alternative Development and Analysis

With the assumption that the original Range of Alternatives is not sufficient to satisfy the Goals and Objectives of the project, a revision stage will be conducted to generate additional alternatives while considering the outcome of the original alternatives analysis. This revision will take the most successful measures of the original Range of Alternatives as well as optimizing or generating additional measures. It is anticipated that this revision stage will generate no more than two alternatives.

These alternatives will then be submitted to the same rigorous alternatives analysis as the original Range of Alternatives. This analysis will be submitted to the project decision-makers for their consideration. It is assumed that an NED will be one of these two alternatives.

4.9 Deliverables

A. Environmental Hybrid Alternative Analysis Report
B. H&H Alternative Hybrid Analysis Report
C. Geomorphology Hybrid Alternative Analysis Report
D. Economic Additional Hybrid Analysis Report
E. Hybrid Alternative and Alternative Analysis Report (including 35% design [of

the revised alternative] and Geotechnical Investigations).
E. NEPA Public Open House Including Report

4.9 Responsibilities

A. Federal –Project management, preparation of environmental, geomorphology and economic reporting, and review of all deliverables.
B. Non-Federal – Project management, preparation of 35% design, H&H reporting, review of deliverables, and materials and leadership of Public Open House.

4.10 Alternative Formulation Briefing

The AFB is help when the PDT is prepared to present the results of the alternative formulation, evaluation and comparison of plans and has identified a tentatively selected plan. The AFB is concerned with the adequacy of the formulation, evaluation and comparison of alternative plans, the reasonableness of the costs, benefits, and impacts of the final array of plans, and the proper application of cost sharing and other legal and policy requirements in arriving at the tentatively selected plan.

4.10 Deliverables

A. Alternative Formulation Briefing

4.10 Responsibilities

A. Federal – Project management, prepare for and conduct meeting.
B. Non-Federal – Project management and attendance at meeting.

4.11 Feasibility Study Report and Environmental Impact Statement

The current phase of the Skagit River GI culminates in a Feasibility Study Report and EIS to document alternative formulation and analysis as well as documenting any and all regulatory or legal requirements for the project. All previously generated reports provide chapters of this final document. Labor effort for this task is to take information from previously generated reports to provide the text and figures.

The NEPA process requires that a Draft EIS is released for public review and comment. Normally these documents generate a great number of comments that need to be cataloged and responded to. Modifications may be made to the EIS and Feasibility Study Documents to reflect additional analysis performed or clarification of text to address comments received during the comment period.

4.11 Deliverables

A. Draft Feasibility Study Report
B. Draft Environmental Impact Statement
D. Final Feasibility Study Report
E. Final Environmental Impact Statement with Record of Decision

4.11 Responsibilities

A. Federal – Project management, preparation of Draft and Final Reports,

preparation of Record of Decision and document review.
B. Non-Federal – Project management, preparation of Draft and Final Reports, and document review.

4.12 Public Involvement

Public involvement is of vital importance to the success of a project such as the Skagit GI. Outcomes of this project will have far-reaching implications for the communities impacted by the project as well as a significant national interest.

In recent months, Skagit County has been conducing Advisory Committee meetings for its Comprehensive Flood Hazard Management Plan (CFHMP) process. These Advisory Committee meetings have been attended by USACE project managers and serve to provide feedback to the Feasibility Study. Advisory Committee meetings will continues credited toward the project if the meetings coincide with tasks being conducted for the GI (e.g. measures screening, alternative formulation). In the event that the activities of the Advisory Committee occur ahead of GI tasks, those meetings will not be applicable as work-in-kind on the GI.

Future public involvement activities will be focused on informing the public of process, analysis, and outcomes of the project while incorporating general public issues and concerns. Additionally, future public involvement will be conducted in a manner that complies with NEPA. Skagit County will remain the lead on public involvement. Tasks and deliverables identified above (public open houses, newsletters, etc) will be prepared and led by the County for the duration of the project.

In addition, the PDT will develop a list of interested parties for the project. The County and USACE PMs (and their consultants) will make themselves available for presentations and discussions with local interest groups in an effort to provide broad-based public information and to provide multiple opportunities to solicit input.

4.13 Schedule

The schedule attached as an appendix represents the schedule based on maximum project capacity. The feasibility schedule will be reevaluated each quarter to determine changes due to funding constraints, change issues and risk analysis to reflect any changes in study assumptions or tasks based on current information. Schedule and budget are managed within the Corps schedule and budgeting software P2. Key study milestones are listed in Table 4.

Table 4 – Project Milestones

Deliverable	Completion
Peer Review Plan	June 2009
Feasibility Scoping Meeting Read-Ahead	August 2009
Feasibility Scoping Meeting	September 2009
Levee Risk and Reliability Report	2nd Quarter FY10
H&H Without Project Condition Report	2nd Quarter FY10
Economics Without Project Condition Report	3rd Quarter FY10
Feasibility Study Without Project Condition Report	3rd Quarter FY10
Measures Report (Includes 10% design)	3rd Quarter FY10
Screening Technical Memo	3rd Quarter FY10
Environmental Analysis Future Without Project Report	3rd Quarter FY10

Deliverable	Completion
H&H Analysis Future Without Project Report	3rd Quarter FY10
Economic Analysis Future Without Project Report	3rd Quarter FY10
Geomorphology Analysis Future Without Project Report	3rd Quarter FY10
Range of Alternatives Report	4th Quarter FY10
NEPA Scoping Meetings/Process Including NOI and report	4th Quarter FY10
Environmental Alternative Analysis Report	1st Quarter FY11
Economic Alternative Analysis Report	1st Quarter FY11
Geomorphology Alternative Analysis Report	1st Quarter FY11
H&H Alternative Analysis Report	1st Quarter FY11
NEPA Open House Including Report	1st Quarter FY11
35% Design on measure consistent across alternatives	2nd Quarter FY11
Environmental Hybrid Alternative Analysis Report	2nd Quarter FY11
Geomorphology Hybrid Alternative Analysis Report	2nd Quarter FY11
H&H Hybrid Alternative Analysis Report	2nd Quarter FY11
Economic Hybrid Alternative Analysis Report	2nd Quarter FY11
Hybrid Alternative and Alternative Analysis Report (including 35% design and Geotechnical Investigations)	3rd Quarter FY11
Alternative Formulation Briefing Meeting	3rd Quarter FY11
NEPA Open House Including Report	4th Quarter FY11
Dam Waiver	1st Quarter FY12
Draft Feasibility Study Report	2nd Quarter FY12
Draft Environmental Impact Statement	2nd Quarter FY12
Final Feasibility Study Report	4th Quarter FY12
Final Environmental Impact Statement	4th Quarter FY12

4.14 Budget

Table 5 shows the breakout of funding requirements by study task identified in Section 4.3 for federal and non-federal funding. All funding needs are calculated from June 2009 forward. Table 11 does not include expenditures for the first, second or third quarters of 2009. All expenditures incorporate an additional 10% for general district review and ATR.

Costs associated with on-going public involvement incorporate website development and maintenance, preparation of project graphics and presentation boards, and regular presentations to local government jurisdictions and interest groups.

Each fiscal quarter, the USACE and County project managers will convene to determine status of cost matching on the project. Cost allocation may be revised to achieve 50% cost sharing.

Table 5. Feasibility Cost Share by Deliverable

	Federal	Non-Federal
Peer Review Plan	$5,000	
Feasibility Scoping Meeting Read-Ahead	$55,000	$23,000
Feasibility Scoping Meeting	$25,000	$2,000
Levee Risk & Reliability Evaluation	$100,000	$10,000
FY09 Total	**$185,000**	**$35,000**

H&H Without Project Condition Report	$7,500	$82,500

	Federal	Non-Federal
Economics Without Project Condition Report	$74,000	$10,000
Feasibility Study Without Project Executive Summary Report	$38,500	$3,500
Measures Report (includes 10% Design)	$11,000	$110,000
Secondary Screening Technical Memo	$22,000	$2,000
Environmental Future Without Project Condition Report	$33,000	$5,000
Economic Future Without Project Condition Report	$44,000	$4,000
H&H Future Without Project Condition Report	$7,500	$83,500
Geomorphology Without Project Condition Report	$38,500	$3,500
Range of Alternatives Report	$83,500	$5,000
NEPA Scoping Meetings/Process Including NOI and Report	$10,000	$45,000
Environmental Alternative Analysis Report	$300,000	$18,000
Economic Alternative Analysis Report	$83,500	$7,500
Geomorphology Alternative Analysis Report	$83,500	$7,500
H&H Alternative Analysis Report	$18,000	$200,000
NEPA Open House Including Report	$10,000	$45,000
35% Design on Measures Consistent Across Alternatives	$300,000	$300,000
General Project Administration	$150,000	$130,000
On-going Public Involvement	$15,000	$35,000
FY10 Total	**$1,322,000**	**$1,014,500**

	Federal	Non-Federal
Environmental Additional Alternative Analysis Report	$66,000	$6,000
Economic Additional Alternative Analysis Report	$33,000	$3,000
Geomorphology Additional Alternative Analysis Report	$33,000	$3,000
H&H Alternative Additional Analysis Report	$6,000	$66,000
Alternative Refinement and Revised Alternative Analysis Report (including 35% design on remaining measures)	$425,000	$425,000
Alternative Formulation Briefing Meeting	$25,000	$2,000
NEPA Open House Including Report	$10,000	$45,000
Dam Waiver package	$295,000	$245,000
Draft Feasibility Study Report	$65,000	$32,000
Draft Environmental Impact Statement	$65,000	$32,000
General Project Administration (including IEPR)	$300,000	$100,000
On-going Public Involvement	$15,000	$35,000
FY11 Total	**$1,338,000**	**$994,000**

Final Feasibility Study Report	$65,000	$32,000
Final Environmental Impact Statement	$65,000	$32,000
General Project Administration	$200,000	$50,000
On-going Public Involvement	$15,000	$35,000
FY12 Total	**$345,000**	**$149,000**
FY09-FY11 Subtotal	**$3,190,000**	**$2,192,500**

SECTION 5 - QUALITY CONTROL PLAN

5.1 Intent

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 USACE's Project Management Business Process (PMBP). The PDT will ensure that services and products meet the agreed upon requirements and are performed in accordance with appropriate laws, policies and technical criteria. The QC Plan defines the responsibilities and roles of each member of the PDT and the technical review teams. DQC, ATR, and Independent External Peer Review (IEPR) will be performed independent of the technical production of the product to be reviewed. It will include all relevant technical disciplines, along with necessary legal sufficiency and policy compliance review.

Reference: 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.

5.2 Methodology

Project Delivery Team, Executive Committee, Vertical Team. The PDT is an interdisciplinary group formed to execute the feasibility study in accordance with the PMP. The Skagit River PDT is comprised of qualified staff from within the Seattle District, Skagit County, and consultants and contractors. The Executive Committee, which oversees the work of the PDT and consistency with the PMP, is comprised of senior members representing both USACE and Skagit County. The Vertical Team is comprised of USACE policy level staff from the District, Division, and Headquarters and the County. They represent the key technical areas of focus of the feasibility study, including planning and plan formulation. The Vertical Team has the task to insure that the feasibility study is following appropriate USACE process for planning and technical issues. The Vertical Team reviews the PDT's products at the Feasibility Scoping Meeting and the Alternative Briefing Meeting, and is available to resolve study issues throughout the feasibility process through interim project reviews. Reference: ER1105-2-100.

Work performed under contracts with third parties administered by either Skagit County or the USACE will be technically reviewed to ensure that quality objectives have been met. USACE, Skagit County will perform internal review of all study-related work products, whether prepared by USACE or by Skagit County as in-kind services. Quality control review by USACE of in-kind services performed by Skagit County will ensure that such products qualify for credit as in-kind services.

District Quality Control. All draft products and deliverables will be reviewed by the PDT as they are developed to ensure they meet project and customer objectives, comply with regulatory and engineering guidance, and meet customer 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 ATR. Reference: ER 1105-2-410, Review of Decision Documents, 22 August 2008.

Agency Technical Review. The objective of the ATR is to ensure the product is consistent with established criteria, guidance, procedures, and policy. The ATR 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.

USACE personnel external to the Seattle District will perform this ATR. Technical disciplines to be represented on the ATR will, at a minimum, include hydraulics, economics, environmental, cultural, design, and plan formulation. All decision documents require ATR. A detailed Peer Review Plan has been approved by USACE Division offices and the Centers of Expertise for Flood Risk Management and Environmental Restoration and is posted at their website. Policy issues will be reviewed by USACE Division and Headquarters, and the Chief of Engineer's office. EC 1105-2-410 appendix C, page 4 provides additional review criteria. Reference: ER 1105-2-410, Review of Decision Documents, 22 August 2008.

Independent External Peer Review. Independent External Peer 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. External Peer Review is conducted by nationally recognized technical experts outside of USACE. The Independent External Peer Review panel will be established by the responsible Planning Center of Expertise through contract with an independent scientific and technical advisory organization.

The scope of the review will address all underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project. The IEPR panel will use appropriate analytical methods for each technical section. The panel will meet with the study PDT and the public to determine areas of controversy in the decision document. If determined necessary, the panel will tour the study area and interview participants as needed. Reference: ER 1105-2-410, Review of Decision Documents, 22 August 2008.

5.3 Peer Review Plan

To insure transparency and accountability in the USACE planning process, USACE requires the preparation of a Peer Review Plan (attached). This plan recommends the level of technical review – either within the Corps, or with an external panel of nationally recognized specialists. Technical review is for technical data only. Policy review remains within the USACE chain of command. The Skagit River GI feasibility report will have external peer review prior to approval of the Chief's Report. Areas of review will include hydrology and hydraulics, economics, environmental and cultural considerations, design, and costs. Division and the USACE Centers of Expertise are in the process of identifying internal technical reviewers for the Skagit GI study. The panel of experts will be selected, with public input, prior to the Alternative Formulation Briefing (AFB) meeting. All policy compliance milestones will be implemented in accordance

with ER 1105-2-100, Planning Guidance Notebook, EC 1105-2-408, Planning - Peer Review of Decision Documents.

5.4 Quality Control Responsibilities

5.4.1 Project Managers

The USACE and Skagit County project managers shall be responsible for coordinating the DQC, ATR, and IEPR effort with the review team leader, and shall:

1. Ensure that the schedule contains sufficient time to perform reviews of completed products.
2. 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 USACE managers for resolution.

5.4.2 Resource Managers

Each USACE of Engineers 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 review team for review. Skagit County shall follow the same procedure for all work performed as an in-kind service for which credit is to be granted by USACE.

5.4.3 Technical Review Team Leader and Technical Review Team Members

The technical review team leader is responsible for coordinating all activities associated with the technical review of assigned work products. The technical review team leader will coordinate the technical review and assemble all technical review comments and other review-related documents for the use of the technical review team and PDT. Each technical review team members 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 PDT responses to technical review comments and provide results of the back check to the technical review team leader.

5.4.4 Consultant Products

Consultants are an extension of USACE or Skagit County staff. Accordingly, all products prepared by consultants will have a technical review just as if they had been prepared by the PDT.

5.4.5 Policy Compliance Review

Policy compliance review is the Corps of Engineers Headquarters (HQUSACE) level review of decision documents that involves analysis of decision factors and assumptions used to determine the extent and nature of Federal interest, project cost-sharing and cooperation requirements, and any other related issues. The District is responsible for the technical and policy content of all documents produced by the District. Questions or problems regarding policy concerns will be elevated by the functional program manager directly to HQUSACE (CECW-A) for resolution as the issues develop. Legal and real estate policy issues will be elevated to the Chief Counsel and Director of Real Estate, respectively. During HQUSACE

review of documents, the Policy Review Branch (CECW-AR) of Policy Division (CECW-A) will perform a policy compliance review of decision documents using a review team composed of members from the major HQUSACE elements and other offices, as appropriate.

SECTION 6 – RISK MANAGEMENT

Risk management is a systematic process of identifying, analyzing, and responding to risk for the entire project life cycle. A risk analysis is performed for five categories of project risk: scope, quality, schedule, cost, and safety and health risks. The level of detail of the risk analysis and plan is based on the complexity of the project. When a project is determined to be other than low-risk, the risk must be identified, and associated control procedures defined to address the risk. A key concern of the Corps is the potential for residual flooding risks with constructed projects. This is particularly an issue if the flood risk management plan encourages additional development behind projects that can have catastrophic failure, such as levees. The risks of operating dams for additional flood control will also be seriously considered by USACE. Modifications to the Baker Dams, even for operational changes, will require coordination with HQUSACE concerning the ability of the dams to meet current USACE design/operation requirements. USACE will need to insure that prudent assumptions have been made concerning the hydrology and hydraulics of the basin, the condition of existing flood risk management projects, and the ability of the County to operate and maintain the recommended system over time.

SECTION 7 – ACQUISITION PLAN

All work will be conducted by USACE, the County, or contractors. The assignment of specific tasks is shown in the study scope of work. Work can be completed by contractors for Skagit County or USACE, provided there is mutual agreement on the scope of work and selection of the contractor. Any modifications to the scope of work or allocation of tasks must be agreed to by both the County and USACE before work is initiated.

SECTION 8 – CHANGE MANAGEMENT

Change management is the process whereby the PMP and supporting documents may be changed in response to policy, technical, economic, political, financial, and other issues. It must be approved by the Seattle District Chief, Planning Branch. The PMP serves as the "road map" for the feasibility study. The PMP can be changed with the concurrence of the PDT (including the County). USACE and the sponsor cannot initiate new work outside of the PMP without a written decision stating that both parties concur the work needs to be done, the monetary value of the work, the schedule for completion, and who will be assigned the task. The memorandum becomes part of the amended PMP. The Feasibility Cost Sharing Agreement (FCSA) is the "contract" between USACE and the County to co share funding of the study. It is signed by the Seattle District Commander and the County either by the County Commissioners or their designee. Contained in the FCSA are the steps for revisions of the FCSA or for the termination of the study. Two key teams are involved in Change Management, the Executive Team, and the Vertical Team.

The Executive team is comprised of the District Commander, Chief Planning Branch, the project manager, and other key technical staff from the Corps. The County Commissioners complete the team. This team has the ability to discuss and seek resolution on study issues. The Vertical Team consists of staff from Corps Headquarters, Division, and District staff, and makes policy and technical decisions for USACE. The Vertical Team may act on recommendations provided by the Executive Team.

Any study issues that result in the change in milestones or funding will be raised to Chief, Planning. Technical issues will be discussed within the team but raised to resource managers and Chief, Planning in a timely manner. Changes in milestones or obligation/expenditure rates will be reported to the District Program Review Board (PRB).

SECTION 9 – COMMUNICATION PLAN

9.1 COMMUNICATION CHALLENGES

Primary challenges for the PDT with regard to communication are in developing a consistent, open communication strategy that releases data generated in a scientifically proficient manner that is properly reported and reviewed prior to release. Where possible, discussions of data should refer to properly reviewed reports and not draft, unreleased or unsubstantiated data. Professional opinions should be moderated without presupposing an outcome to the project. Project decisions should be released to the public in writing, either through the release of a report or a press release on behalf of the project.

The USACE project manager will act as spokesperson for the project. PDT members approached by the press should refer all questions to the project manager.

9.2 GOALS

- Increase public awareness
- Provide opportunity for the community to voice their concerns
- Keep public informed as to project milestones
- Keep local media up-to-date on relevant project information
- Show a "unified front" of both the Corps and County to the public: "We are working together toward one solution."
- Release data in a manner that is efficient and transparent while ensuring the highest levels of quality.
- Provide data in an equitable way, meaning no stakeholder or group will be shown exemplary preference in coordination with the PDT or any of its members.
- To the greatest extent possible, data will be provided to the public in a format that is reader friendly and appropriate for a general public audience.

9.3 TARGET AUDIENCES

- Local communities along the Skagit River. Especially the cities of Concrete, Hamilton, Mount Vernon, and Burlington – repetitive loss areas.
- Native American Tribes with lands or ceded rights to resources in the study area.

- Cities/towns, tribes, other state/federal departments, utilities, railroad, port authorities, water treatment plant.
- Corporations, businesses and private interest groups (e.g., oil refineries, utilities, Skagit Conservation District, Diking Districts, Friends of Skagit County).
- Larger environmental communities and/or organizations keeping an eye on Skagit River (The Nature Conservancy, American Rivers, etc.)
- State and Federal regulatory agencies.

9.4 KEY MESSAGES

- Inform the public generically about the Skagit River Flood Damage Reduction and Ecosystem Restoration Feasibility Study.
- Demonstrate that measures being developed are intended to reduce project costs and implementation time, and avoid and minimize adverse impacts of flood control measures on the environment.
- Emphasize that flood damage reduction solutions include environmental restoration and that we have learned you can't do one without the other.
- Show a "unified front" of both USACE and County to the public: "We are working together toward one solution."
- That the feasibility report/EIS will give us information to select the best possible alternative for the most cost-effective investment of money.

9.6 TACTICS AND TOOLS NEEDED TO MEET GOALS

- Public meetings hosted by both County and USACE (Some pertinent community group meetings to include are: Fire District, Rotary, City Council, Chamber of Commerce, etc.).
- Internet access through the USACE public web site, Skagit County web site and individual city web sites (i.e. City of Mount Vernon)
- Mass mailings to the general public informing them of the release of project reports.
- Making project reports available for public review on the internet, at local government offices, and by mail.
- Individual follow-through by public affairs/community relations and project managers to specific questions via phone, email and/or written replies.
- City of Mount Vernon Community Access Television: MVTV Channel 10/98
- Informational videos for showing at community meetings, on public access TV, and for checkout at local public libraries.
- One-on-one work sessions with project stakeholders.
- Informational forums

9.7 EVALUATION OF COMMUNICATION PLAN SUCCESS

- Work with County on keeping complaint log/citizen comments current. Are these comments being incorporated in to design/construction information?
- Yearly written summary of "where we are at" to monitor progress or digression from Communications goals.
- Incorporate information from County public outreach to USACE public outreach.

SECTION 10- VALUE ENGINEERING

Value engineering is required for all Civil Works projects exceeding $1,000,000 in value. The purpose of value engineering is to improve the efficiency of the recommended plan. It is performed during the 35% design process for all projects over $1 million, and is intended to reduce construction and maintenance costs, improve engineering features, and generally provide a better Federal product.

SECTION 11 – CLOSE OUT PLAN

Projects are closed out when completed. Interim close out occurs following the completion of the feasibility phase. All study expenditures (labor, contacts, equipment, work in-kind) are accounted for. The amount of federal and nonfederal cash provided to the study is tabulated, along with credited work in kind (submitted to Chief, Finance and Accounting by the project manager) The close out insures that expenditures are balanced, if nonfederal funds need to be given back to the sponsor, or if there is a need for additional nonfederal cash to balance the books. Expenditures and obligations of work are tracked through the USACE CEFMS and P2 systems.

SECTION 12 – LESSONS LEARNED REPORT

A Lessons Learned report will be prepared at the conclusion of the feasibility study, and following key decision point meetings during feasibility. The Lessons Learned report will be the responsibility of the Project Manager, with input from the PDT, sponsor, and other key players involved in the particular issues. The intent of a Lessons Learned Report is to clarify what happened, why, and how. The PDT then proposes ways to insure that these errors are not repeated again by this team, and as guidance for other Corps feasibility studies. Lessons Learned are discussed within the District and posted on the District webpage. "Lessons Learned" can also represent examples of studies where things went unusually well, providing guidance for other studies.

SECTION 15 – PMP APPROVALS

Review of the draft PMP was conducted by the PDT and sponsor team members. The PMP will be provided to the general public, resource agencies, stakeholders, and tribal nations for their information. Significant comments will be addressed in later modifications of the PMP. The PMP will be reevaluated in response to fiscal year federal funding limits, technical or policy issues, at the request of the Executive and Vertical team, and as a result of the dam decision milestone meeting. For the Corps, approval of the PMP is by the Chief of Planning. For Skagit County, approval is coordinated by the County Project Manager, with ultimate approval by the County Commissioners.