

## SUMMARY OF ENVIRONMENTAL IMPACT STATEMENT STUDIES

### By Army Corps of Engineers

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|---|-------------|
| <b>1. Wetland Survey</b>  | <b>45k</b>  |
| This will inventory existing wetland habitats by type and quantity and assess function.   |             |
| <b>2. Sediment Budget</b>   | <b>100k</b> |
| The sediment budget and sediment transport analysis coupled with the results of the hydraulic modeling performed by the Corps will provide the foundation for quantitative assessment of the physical and morphological changes in the Skagit River.  |             |
| <b>3. Geomorphic Analysis</b>   | <b>100k</b> |
| The geomorphic analysis builds on the hydraulics analysis and sediment transport analysis to describe and quantify the processes that form the river. It will also consider how sediment is routed through the project areas and impact on Padilla Bay.                                     |             |
| <b>4. Fish Loss</b>   | <b>50k</b>  |
| Fish loss depends on the species, timing of flood event and location of fish presence within the Skagit River. Each flood scenario has the potential for a direct loss of fish and the risk will varies by the alternative selection.   |             |
| <b>5. Baseline Conditions</b>   | <b>100k</b> |
| The analysis of impacts associated with each conceptual alternative includes an evaluation of the potential impacts to habitat within the river. An inventory of existing conditions provides a relevant point of reference for comparing habitat changes associated with each alternative. |             |
| <b>6. Fish Production from Mitigation</b>   | <b>120k</b> |
| Anticipated changes in fish population would be made utilizing data from the hydrodynamic modeling effort. These estimates will be made using existing information, and will be compared by alternative.  |             |
| <b>Sub Total</b>  | <b>515K</b> |

### By Skagit County

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|---|------------|
| <b>7. Tide Gate and Pump House Inventory</b>  | <b>15k</b> |
| Provide an inventory (location and condition) of all existing tide gates and pump houses within the project area and assess the need for any changes in relation to the study alternatives. |            |
| <b>8. Land-use and Secondary Impacts</b>  | <b>25k</b> |
| Secondary impacts and land use impacts specifically refers to the creation of new opportunities for land development that results from flood control.                                       |            |

<b>Sub Total</b>		<b>40K</b>
<b>TOTAL</b>	<b>Current Funded Studies</b>	<b><u>555K</u></b>

## Other Studies

• <b>Riprap Study</b>	25k
The riprap study will identify the location and extent of riprap use and/or removal within each alternative.	
• <b>Saltwater Intrusion (site specific)</b>	75k
The saltwater intrusion study will look at the potential impact of the alternatives on ground water and any necessary mitigation measures.	
• <b>Over-bank Sediment Analysis</b>	20k
This study will delineate the areas that would experience over bank flooding and determine the degree of turbidity and areas where the sediment would likely be deposited.	
• <b>Bypass Water Temperature</b>	20k
The assessment of potential water temperature impacts focusing on low flows within the proposed flood bypass channel.	
• <b>Padilla Bay Hydrodynamic Model</b>	1,500k
The hydrodynamic model will use bathymetry data to assess the potential change in sediment load and currents in Padilla Bay resulting from additional input of freshwater and sediment.	
• <b>Eelgrass Assessment</b>	<u>500k</u>
This study will assess the difference in function between Padilla Bay and Skagit Bay eelgrass and the potential loss of eelgrass beds due to the input of significant amounts of freshwater and sediment.	
Sub Total	2,140K
<b>GRAND TOTAL</b>	<b>2,695K</b>

The above costs represent an estimate of the cost to prepare the Environmental Impact Statement for the Skagit River Flood Feasibility Study. The total cost to complete the Feasibility Study will include \$1,165,000 for Restoration which will bring the total to \$8,385,000. This is a 50 / 50 cost share between Skagit County and the Army Corps of Engineers and cost Skagit County \$4,192,500.