APPENDIX E

COST ESTIMATES

Overall Project Costs

The overall total project cost is displayed in **Table E-1.**

TABLE E-1. PROJECT COSTS

	No Action Alt	Alt 1	Alt 2a	Alt 3
Construction 09 Channels and Canals				
Mob/Demob	-	$7,155	$488,381	$491,723
Remove Sediments	-	-	$1,422,798	$1,422,798
Offsite Disposal	-	-	-	-
Remove Exotics	-	$10,508	$4,445	$10,508
Reconnect Wetlands	-	$8,331	-	$8,331
Plant Emergent Vegetation (EV)	-	$27,421	$11,134	$27,421
Plant Submerged Aquatic Vegetation (SAV)	-	$9,749	$9,749	$9,749
Island Creation	-	-	$895,517	$895,517
Totals	**$0**	**$63,164**	**$2,832,025**	**$2,866,047**
Non-Construction				
01 Lands and Damages Construction Contract(s) Documents	$0	$625,000	$625,000	$625,000
30 Planning, Engineering and Design (PED) Project Management Plan (PMP)	$0	$3,790	$169,921	$171,963
31 Construction Management (S&A) Project Management Plan (PMP)	$0	$4,800	$215,233	$217,820
Totals	**$0**	**$633,590**	**$1,010,154**	**$1,014,782**
Grand Totals	**$0**	**$696,754**	**$3,842,179**	**$3,880,831**

Corps of Engineers cost estimates for planning purposes is prepared in accordance with the following guidance:

- ETL 1110-2-573, Construction Cost Estimating Guide for Civil Works, 30 September 2008
- Engineer Regulation (ER) 1110-1-1300, Cost Engineering Policy and General Requirements, 26 March 1993
- ER 1110-2-1302, Civil Works Cost Engineering, 15 September 2008
- ER 1110-2-1150, Engineering and Design For Civil Works Projects, 31August 1999
- ER 1105-2-100, Planning Guidance Notebook, 22 April 2000, as amended Engineer Manual (EM) 1110-2-1304 (Tables revised 30 March 2007), Civil Works Construction Cost Index System, 31 March 2000

The cost estimate supporting the Selected Plan was prepared in the Micro Computer Aided Cost Estimating System (MCACES)/MII format to the Civil Works Breakdown Structure (CWBS) sub-feature level.

This estimate is supported by the preferred labor, equipment, materials and crew/production breakdown. In addition, a cost estimate, the Baseline Cost Estimate or Total Project Cost Summary has been developed. The goal of the cost estimate for the Big Fishweir Creek Project Final DPR is to produce a product (cost estimate) that is reliable and accurate is to support the decision of each of the 4 alternative developed by the PDT (including the No Action Plan). In this case, the use of the costs for each management measure is combined into various alternatives to determine the benefits and non-benefits of the project. Lastly, the estimate will be used to help define the Government's and the non-Federal sponsor's obligations.

The Big Fishweir Creek estimate was based on historical knowledge of the construction industry techniques available and the projected scope developed by the PDT.

The MCACES/MII cost estimate is formatted in the CWBS. Note that the total project cost reflected in this estimate does not include any mitigation costs. In addition, it includes both construction and non-construction costs. The construction costs fall under the following feature code:

- 09- Channels and Canals

The non-construction costs fall under the following feature codes:

- 01 - Lands and Damages
- 30 - Planning, Engineering and Design

- 31 - Construction Management

Construction Costs

- Job Office Overhead was calculated using Cost Engineering judgment of the provided level of Cost information available.
- Home Office Overhead was calculated using G&A rates based on industry standard percentages.
- Bonds and Insurance was calculated using rates based on industry standard percentages.
- Contractor's profit was calculated using rates based on industry standard percentages.
- Also added are the following owner markups:
    - Contingency at 25%
    - Escalation was not applied

Non-construction Costs

- Real Estate costs were provided by the Project Manager. They include lands costs and administrative costs and are distinguished as co-sponsor costs or government costs.
- Planning, Engineering and Design (PED) costs were provided by the Project Manager. Seven point five percent is used as the rate for PED.
- Construction Management (S&A) costs were provided by the Project Manager. Eight point five percent is used as the rate for Construction Management costs.

Big Fishweir Creek Planning Level Cost Estimate

The cost estimate for the alternatives includes construction, LERRDs (lands, easements, right-of-ways, relocation and disposal), PED (pre-construction, engineering and design) cost and construction management. These costs are summed in Table E.2 and were used in the cost effectiveness analysis of the alternatives. The initial formulation and evaluation of alternatives cost have been refined for the selected alternative to reflect the most recent cost estimate at price levels and rates required when the final report is submitted. This information is available in other sections of this report.

TABLE E-2: COST OF FINAL ARRAY OF ALTERNATIVES

Alternative 1	$ 696,754
Alternative 2a	$ 3,842,179
Alternative 3	$ 3,880,830

Big Fishweir Creek Critical Factors Affecting Costs

A. Ability for the contractor to operate 24 hours a day because of proximity to local residents.
B. Beneficial Re-use of the Dredged Material for Island Creation.
C. Material dewatering and disposal options (Hauling Cost).

General Cost Sharing

Responsibilities for implementing the recommended Big Fishweir Creek Project will be shared by the USACE, on behalf of the Federal government, and the co-sponsor, the City of Jacksonville (COJ). USACE and COJ will cost share in the design of projects resulting from this plan. COJ will acquire and furnish necessary lands, easements, rights of way, relocation, and disposal areas (collectively referred to as LERRD) necessary for mobilization, installation and testing and construction. Construction and testing contracts will be managed by USACE. The Corps of Engineers provides the first $100,000 of study costs as authorized under Section 206 of the Aquatic Ecosystem Restoration Projects. The non-Federal sponsor must contribute 50 percent of the cost of the feasibility study after the first $100,000 of expenditures, along with 35 percent of the cost of design and construction, and 100 percent of the cost of operation and maintenance. The sponsor receives a credit for the value of real estate necessary to implement the project. The entire non-Federal share of the project cost may be credited as work in kind, but, to receive credit, the services must be provided after a formal Feasibility Study Cost Sharing Agreement or Project Partnership Agreement is signed. Design and construction under this CAP program are 65 percent Federal 35 percent non-Federal. USACE will construct the project and the non-Federal sponsor will provide the funds required to meet its cost share percentage for the project.

Rules, which determine how project responsibilities are shared, are established in Federal law and related administration implementing policies.