



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS  
WASHINGTON DC 20314-1000

AUG 25 2011

CECW-P

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Corps of Engineers Civil Works Cost Definitions and Applicability

1. PURPOSE. This memorandum is intended to define and clarify cost terminology to be used in Chief's Reports and other documents processed through the HQUSACE and/or Office of the Assistant Secretary of the Army for Civil Works (ASA(CW)). It DOES NOT implement new guidance pertaining to cost development.

2. BACKGROUND. Recent Reports of the Chief of Engineers transmitted to the ASA(CW), OMB, and the Congress have been inconsistent in presenting decision makers with a clear explanation of the costs of projects. This inconsistency has led to some confusion among decision makers as to the costs of projects being recommended for Congressional authorization. It is of the utmost importance to provide decision makers with a clear, accurate, and consistent representation of the costs of such projects.

3. REFERENCES.

- a. Planning Guidance Notebook, ER 1105-2-100
- b. Civil Works Cost Engineering, ER 1110-2-1302
- c. Real Estate Handbook, ER 405-1-12

4. DEFINITIONS. In order to be able to properly communicate the costs of a project within the organization, to our partners, and to the Administration and the Congress, a clear understanding of both cost terminology and working definitions is critical. This section describes key cost terminology and explains where different cost estimates should be used.

a. Financial Cost<sup>1</sup> is the monetary outlay, both Federal and non-Federal, of constructing a project. It includes design and construction outlays, transfer payments such as replacement housing payments as specified in 42 U.S.C. 4623 and 4624, and the value of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas (LERRD) provided by non-Federal sponsors. This cost is developed by cost engineering, in close coordination with the economist and other members of the project delivery team, and is typically presented in the Total Project Cost Summary in three different ways: Estimated Cost (Price Level), Constant Dollar Cost (Price Level), and Total Project Cost.

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<sup>1</sup> Examples of financial costs and economic costs can be found in ER 1105-2-100 Appendix D.

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i. Estimated Cost (Price Level) is the initially developed cost estimate which includes contingencies. The effective price level date for Estimated Cost (shown in MONTH YYYY format) is usually the date of preparation of the cost estimate.

ii. Constant Dollar Cost (Price Level) is the Estimated Cost BROUGHT TO THE EFFECTIVE PRICE LEVEL. The effective price level for Constant Dollar Cost (shown in MONTH YYYY format) is the date of the common point in time of the pricing used in the cost estimate. Constant Dollar Cost does not include inflation. Constant Dollar Cost at current price levels is the cost estimate used in feasibility reports and Chief's Reports (see paragraphs 5(a) and 5(b) below).

iii. Total Project Cost is the Constant Dollar Cost FULLY FUNDED WITH ESCALATION to the estimated midpoint of construction. Total Project Cost (or Total Cost of Construction of GNFs when discussing navigation projects) is the cost estimate used in Project Partnership Agreements and Integral Determination Reports. Total Project Cost is the cost estimate provided non-Federal sponsors for their use in financial planning as it provides information regarding the overall non-Federal cost sharing obligation. See the enclosed tables for more detail of what is or is not included in the Total Project Cost.

b. Economic (NED) Cost is the monetary equivalent cost used by the economist in determining the benefit-to-cost ratio (BCR). The Economic Cost includes all of the opportunity costs, both explicit (out of pocket to realize project benefits) and implicit (noncash), of using the resource and is expressed in average annual equivalent terms. The Economic Cost should not be confused with the Financial Cost and should be clearly and separately described in reports. See the enclosed tables for more detail of what is or is not included in the Economic Cost.

## 5. Project Costs For Chief's Reports and Other Decision Documents

a. The cost estimate to be used in Chief's Reports and other decision documents (per Paragraph 1 above) is Constant Dollar Cost at current price level. This cost estimate will serve as the basis for providing the cost of the project for which authorization is sought and will be referred to as the PROJECT FIRST COST. The Project First Cost should include, among other things, an estimate of: (i) preconstruction engineering and design costs; (ii) construction costs, including both Federal costs and non-Federal sponsor in-kind contributions, as applicable; (iii) LERRD values; and (iv) contingencies. Where several years elapse between the signing of the Chief's Report and the consideration of legislation to authorize a project, the Project First Cost should be updated to the date the cost estimate is provided to the Congress, in accordance with ER 1110-2-1302. See the enclosed tables for more detail of what is and is not included in Project First Cost.

b. Total Nourishment Cost<sup>2</sup> Coastal Storm Damage Reduction Projects should include the cost of the initial construction as well as future periodic renourishment. This will be referred to as the Total Nourishment Cost, which is the sum of the Project First Cost for the initial construction and the Constant Dollar Cost at the current price level of all future periodic renourishments. See table 5 for more detail of what is or is not included in Total Nourishment Cost.

6. Examples of Display of Project Costs in Chief's Reports.

a. Example for Flood Risk Management Chief's Report—

Based on (MONTH YYYY) price levels, the estimated project first cost is \$ (INSERT COST), which includes mitigation costs of \$ (INSERT COST). In accordance with the cost share provisions of Section 103 of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2213), the Federal share of the project first cost is estimated to be \$ (INSERT COST) and the non-Federal share is estimated to be \$ (INSERT COST), which equates to (INSERT PERCENTAGE) Federal and (INSERT PERCENTAGE) non-Federal. The non-Federal costs include the value of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas (LERRD) estimated to be \$ (INSERT VALUE).

b. Example for Ecosystem Restoration Chief's Reports—

Based on (MONTH YYYY) price levels, the estimated project first cost is \$ (INSERT COST), which includes monitoring costs of \$ (INSERT COST) and adaptive management costs of \$ (INSERT COST). In accordance with the cost share provisions in Section 103(c) of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2213(c)), the Federal share of the project first cost is estimated to be \$ (INSERT COST) and the non-Federal share is estimated to be \$ (INSERT COST), which equates to (INSERT PERCENTAGE) Federal and (INSERT PERCENTAGE) non-Federal. The non-Federal costs include the value of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas (LERRD) estimated to be \$ (INSERT VALUE).

c. Example for Coastal Storm Damage Reduction (with periodic renourishments) Chief's Reports—

Based on (MONTH YYYY) price levels, the estimated total nourishment cost is \$ (INSERT COST), which includes the project first cost of initial construction of \$ (INSERT COST) and a total of (INSERT NUMBER OF RENOURISHMENTS) periodic renourishments at a total cost

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<sup>2</sup> Note that these projects have two distinct Maximum Project Cost (902 Limits) when authorized by Congress. The Planning Guidance Notebook addresses Maximum Project Cost (902 Limits). This is not a discounted cost.

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of \$ (INSERT COST). Periodic renourishments are planned at (INSERT NUMBER) year intervals. In accordance with the cost share provisions in Section 103 of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2213), the Federal and non-Federal shares are as follows:

a. The Federal share of the project first cost is estimated to be \$ (INSERT COST) and the non-Federal share is estimated to be \$ (INSERT COST), which equates to (INSERT PERCENTAGE) Federal and (INSERT PERCENTAGE) non-Federal. The non-Federal costs include the value of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas (LERRD) estimated to be \$ (INSERT VALUE).

b. The Federal share of each future periodic renourishment is estimated to be \$ (INSERT COST) and the non-Federal share is estimated to be \$ (INSERT COST) which equates to (INSERT PERCENTAGE) Federal and (INSERT PERCENTAGE) non-Federal.

d. Example for Commercial Navigation Harbor Chief's Reports<sup>3</sup>–

Project Cost Breakdown based on (MONTH YYYY) Prices.

a. Project First Cost. The estimated project first cost is \$ (INSERT COST), which includes the cost of constructing the general navigation features and the value of lands, easements, rights-of-way and relocations estimated as follows: \$ (INSERT COST) for channel modification and dredged material placement; \$ (INSERT COST) for environmental mitigation; \$ (INSERT VALUE) for the value of lands, easements, rights-of-way, and relocations (except utility relocations) provided by the non-Federal sponsor; and, as applicable if the project involves a deep draft harbor, \$ (INSERT COST) for the one-half of the cost of utility relocations borne by the non-Federal sponsor pursuant to Section 101(a)(4) of WRDA 1986, as amended (33 U.S.C. 2211(a)(4)).<sup>4</sup>

b. Estimated Federal and Non-Federal Shares. The estimated Federal and non-Federal shares of the project first cost are \$ (INSERT COST) and \$ (INSERT COST), respectively, as apportioned in accordance with the cost sharing provisions of Section 101 of WRDA 1986, as amended (33 U.S.C. 2211), as follows:

(1) The costs for the deepening of the general navigation features from (INSERT EXISTING DEPTH) to 20 feet will be shared at the rate of 90 percent by the Government and 10 percent by the non-Federal sponsor. Accordingly, the Federal and non-Federal shares of the

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<sup>3</sup> This includes Deep Draft and Small Harbors and excludes inland and recreational navigation. See ER 1105-2-100.

<sup>4</sup> You must choose the appropriate cost share zones, paragraph b (1), (2) and (3) that pertain to the navigation project.

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estimated \$ (INSERT COST) cost in this zone are estimated to be \$ (INSERT COST) and \$ (INSERT COST), respectively.

(2) The costs for the deepening of the general navigation features from (20 feet or INSERT EXISTING DEPTH)<sup>5</sup> to 45 feet will be shared at the rate of 75 percent by the Government and 25 percent by the non-Federal sponsor. Accordingly, the Federal and non-Federal shares of the estimated \$ (INSERT COST) cost in this zone are estimated to be \$ (INSERT COST) and \$ (INSERT COST), respectively.

(3) The costs for the deepening of the general navigation features from 45 to (INSERT RECOMMENDED PROJECT DEPTH) feet will be shared at the rate of 50 percent by the Government and 50 percent by the non-Federal sponsor. Accordingly, the Federal and non-Federal shares of the estimated \$ (INSERT COST) cost in this zone are estimated to be \$ (INSERT COST) each.

(4) In addition to payment by the non-Federal sponsor of its share of costs as estimated and addressed in sub-paragraphs (1), (2) and (3) above, the estimated non-Federal share of \$ (INSERT COST) includes \$ (INSERT COST) for the estimated value of lands, easements, rights-of-way, and relocations (except utility relocations) that it must provide pursuant to Section 101(a)(3) of WRDA 1986, as amended (33 U.S.C. 2211(a)(3)), and [in the case of deep draft harbors, if applicable] \$ (INSERT COST) for the one-half of the estimated costs of utility relocations borne by the non-Federal sponsor pursuant to Section 101(a)(4) of WRDA 1986, as amended (33 U.S.C. 2211(a)(4)).

c. Additional 10 Percent Payment. In addition to the non-Federal sponsor's estimated share of the project first cost determined in (b) above, pursuant to Section 101(a)(2) of WRDA 1986, as amended (33 U.S.C. 2211(a)(2)), the non-Federal sponsor must pay an additional 10 percent of the cost of the general navigation features of the project in cash over a period not to exceed 30 years, with interest. The additional 10 percent payment is estimated to be \$ (INSERT COST) before interest is applied<sup>6</sup>. The value of lands, easements, rights-of-way, and relocations provided by the non-Federal sponsor under Section 101(a)(3) of WRDA 1986, as amended (33 U.S.C. 2211(a)(3)), and the costs of utility relocations borne by the non-Federal sponsor under Section 101(a)(4) of WRDA 1986, as amended (33 U.S.C. 2211(a)(4)), will be credited toward payment of this amount.

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<sup>5</sup> If paragraph b.(1) is used, then use 20 feet. If the existing depth is greater than 20 feet then does not use paragraph b.(1) and insert existing channel depth.

<sup>6</sup> Interest is applied at time of construction using the applicable interest rate.

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d. Operation and Maintenance Costs. [Used if a deep draft harbor is being recommended for authorization.] The additional annual cost of operation and maintenance for this recommended plan is estimated to be \$ (INSERT COST).<sup>7</sup> In accordance with Section 101(b)(1) of WRDA 1986, as amended (33 U.S.C. 2211(b)(1)), the non-Federal sponsor will be responsible for an amount equal to 50 percent of the excess of the cost of the operation and maintenance of the project over the cost which would be incurred for operation and maintenance of the project if the project had a depth of 45 feet. The excess annual cost attributable to operation and maintenance for the depth in excess of 45 feet is \$ (INSERT COST) with the non-Federal sponsor responsible for \$ (INSERT COST).

e. Associated Costs. Estimated associated costs of \$ (INSERT COST) include \$ (INSERT COST) in non-Federal costs associated with development of local service facilities (including dredging of berthing areas); \$ (INSERT COST) for navigation aids (a U.S. Coast Guard expense); and \$ (INSERT COST) for the one-half of the cost of utility relocations to be borne by the facility owners in accordance with Section 101(a) (4) of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2211(a)(4)).

f. Authorized Project Cost and Section 902 Calculation. The project first cost, for the purposes of authorization and calculating the maximum cost of the project pursuant to Section 902 of WRDA 1986, as amended, includes the cost of constructing the general navigation features, the value of lands, easements, and rights-of-way, the value of relocations provided under Section 101(a)(3) of WRDA 1986, as amended (33 U.S.C. 2211(a)(3)), and the one-half of the costs of utility relocations borne by the non-Federal sponsor for utility relocations under Section 101(a)(4) of WRDA 1986, as amended (33 U.S.C. 2211(a)(4)). Accordingly, as set forth in paragraph a, above, based on (MONTH YYYY) prices, the estimated project first cost for these purposes is \$ (INSERT COST) with an estimated Federal share of \$ (INSERT COST) and an estimated non-Federal share of \$ (INSERT COST).

## 7. IMPLEMENTATION

a. For future Reports of the Chief of Engineers and other decision documents (per Paragraph 1) pertaining to authorization of a project processed through the Office of the ASA(CW), the costs shown will be Project First Costs or Total Nourishment Costs, as applicable, as described in Paragraph 5. Use of the formats contained in the examples in paragraph six of this memorandum should be followed in all Chief's Reports, and any deviations from those paragraphs should be thoroughly coordinated through the Office of Water Project Review (CECW-PC).

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<sup>7</sup> If recommended plan depth is 45 feet or less, only use the first sentence; if over 50 feet, use the entire paragraph.

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b. For Project Partnership Agreements and Integral Determination Reports processed through the Office of the ASA(CW), the costs shown will be Total Project Costs (or Total Costs of Construction of GNFs when discussing navigation projects).

FOR THE COMMANDER:



STEVEN L. STOCKTON, P.E.  
Director of Civil Works

5 Encls

1. Flood Risk Management
2. Ecosystem Restoration
3. Commercial Navigation Boat Harbor
4. Inland Navigation
5. Coastal Storm Damage Reduction

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Enclosures

12 September, 2011

**Table 1 - FLOOD RISK MANAGEMENT - Costs to be Presented in Chief's Report and Project Partnership Agreements**

CWBS*	Project Cost Component**	Brief Definition	For Chief's Report		For PPA's
			Project First Cost	Economic Cost for BCR	Total Project Cost
			At Current Price Level (MM YYYY)		Fully Funded Estimate
01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD).	Estimated value/costs of LERRD for the project (to include breakout of related Federal administrative costs).	Y	Y***	Y
03 - 20	Construction Elements	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
30	Planning, Engineering, and Design (post feasibility work)	Estimated costs for post feasibility planning, engineering, and design for the project. This cost should include the estimate of Preconstruction Engineering and Design (PED) phase costs as well as the planning, engineering, and design costs during the construction phase to complete the project.	Y	Y	Y
31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
	Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y	Y***
By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
	Interest During Construction (IDC)	Estimate of interest accumulated during construction (Economic cost)	N	Y	N
	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Total Project Cost	N	N	Y
	Associated Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal responsibility. These costs are required to be shown within the Chief's Report as a separate category but are not to be included within the project first costs.	N	Y	N

**\*Civil Works Breakdown Structure****\*\*This matrix is for summary only and not intended to replace any current guidance.****\*\*\*Note that some relocation assistance benefit payments are not included in the Benefit-to-Cost Ratio (BCR) and that some cultural mitigation costs are not included in Total Project Costs.****Y- included / N- Not include**

**Table 2 – ECOSYSTEM RESTORATION - Costs to be Presented in Chief’s Report and Project Partnership Agreements**

CWBS*	Project Cost Component**	Brief Definition	For Chief's Report		For PPA's
			Project First Cost	Economic Cost for BCR	Total Project Cost
			At Current Price Level (MM YYYY)		Fully Funded Estimate
01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD). ,	Estimated value/costs of LERRD for the project (to include breakout of related Federal administrative costs).	Y	Y***	Y
03 - 20	Construction Elements	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
30	Planning, Engineering, and Design (post feasibility work)	Estimated costs for post feasibility planning, engineering, and design for the project. This cost should include the estimate of Preconstruction Engineering and Design (PED) phase costs as well as the planning, engineering, and design costs during the construction phase to complete the project.	Y	Y	Y
31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
	Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y	Y***
	Monitoring and Adaptive Management	This represents the estimated costs of monitoring and or adaptive management to be cost shared for the project.	Y	Y	Y
By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
	Interest During Construction (IDC)	Estimate of interest accumulated during construction (Economic cost)	N	Y	N
	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Total Project Cost	N	N	Y
	Associated and Other Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal responsibility. These costs are required to be shown within the Chief's Report as a separate category but are not to be included within the project first costs.	N	Y	N

\*Civil Works Breakdown Structure

\*\*This matrix is for summary only and not intended to replace any current guidance.

\*\*\*Note that some relocation assistance benefit payments are not included in the Benefit-to-Cost Ratio (BCR) and that some cultural mitigation costs are not included in Total Project Costs.

Y- included / N- Not include

**Table 3 –COMMERCIAL NAVIGATION BOAT HARBOR -  
Costs to be Presented in Chief’s Report and Project Partnership Agreements**

CWBS*	Project Cost Component**	Brief Definition	For Chief's Report		For PPA's
			Project First Cost	Economic Cost for BCR	Total Costs of Construction of GNFs
			At Current Price Level (MM YYYY)		Fully Funded Cost Estimate
01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERR).	Estimated costs of LERR for the project.	Y	Y***	N
03 - 20	Construction Elements (General Navigation Features)	Physical Construction cost estimate broken out by Civil Works Breakdown Structure (CWBS).	Y	Y	Y
30	Planning, Engineering, and Design (post feasibility work)	Estimated costs for post feasibility planning, engineering, and design for the project. This cost should include the estimate of Preconstruction Engineering and Design (PED) phase costs as well as the planning, engineering, and design costs during the construction phase to complete the project.	Y	Y	Y
31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
	Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y	Y***
By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
	Interest During Construction (IDC)	Estimate of interest accumulated during construction (Economic cost)	N	Y	N
	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N/A
	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Total Project Cost	N	N	Y
	Local Service Facilities (LSF)	<b>For Commercial Navigation Only:</b> This represents the estimated cost of Local Service Facilities as defined in the Planning Guidance Notebook Appendix E. These are the responsibility of the non-Federal entity and are required as part of the PPA if they are necessary for project benefits to accrue.	N	Y	N
	Associated and Other Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal, or other Federal agency, responsibility. These costs are required to be shown within the Chief's Report as a separate category but are not to be included within the project first costs.	N	Y	N
<p><b>*Civil Works Breakdown Structure</b></p> <p><b>**This matrix is for summary only and not intended to replace any current guidance.</b></p> <p><b>***Note that some relocation assistance benefit payments are not included in the Benefit-to-Cost Ratio (BCR) and some cultural mitigation costs are not included in Total Costs of Construction of GNFs.</b></p> <p><b>Y- included / N- Not include</b></p>					

**Table 4 - INLAND NAVIGATION - Costs to be Presented in Chief's Report and Project Partnership Agreements**

CWBS*	Project Cost Component**	Brief Definition	For Chief's Report		For PPA's
			Project First Cost	Economic Cost for BCR	Total Project Cost
			At Current Price Level (MM YYYY)		Fully Funded Cost Estimate
01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD).	Estimated costs of LERRD for the project.	Y	Y***	N/A
03 - 20	Construction Elements (General Navigation Features)	Physical Construction cost estimate broken out by Civil Works Breakdown Structure (CWBS).	Y	Y	N/A
30	Planning, Engineering, and Design (post feasibility work)	Estimated costs for post feasibility planning, engineering, and design for the project. This cost should include the estimate of Preconstruction Engineering and Design (PED) phase costs as well as the planning, engineering, and design costs during the construction phase to complete the project.	Y	Y	N/A
31	Construction Management	Estimated costs for construction management of project	Y	Y	N/A
	Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	N/A
18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y	N/A
By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	N/A
	Interest During Construction (IDC)	Estimate of interest accumulated during construction (Economic cost)	N	Y	N/A
	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N/A
	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Total Project Cost	N	N	N/A
	Local Service Facilities (LSF)	<b>For Commercial Navigation Only:</b> This represents the estimated cost of Local Service Facilities as defined in the Planning Guidance Notebook Appendix E. These are the responsibility of the non-Federal entity and are required as part of the PPA if they are necessary for project benefits to accrue.	N	Y	N
	Associated and Other Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal, or other Federal agency, responsibility. These costs are required to be shown within the Chief's Report as a separate category but are not to be included within the project first costs.	N	Y	N/A

\*Civil Works Breakdown Structure

\*\*This matrix is for summary only and not intended to replace any current guidance.

\*\*\* Note that some relocation assistance benefit payments are not included in the Benefit-to-Cost Ratio (BCR).

Y- included / N- Not include

**Table 5 - COASTAL STORM DAMAGE REDUCTION (use consistent name)- Costs to be Presented in Chief's Report and Project Partnership Agreements**

CWBS*	Project Cost Component**	Brief Definition	For Chief's Report		For PPA's
			Project First Cost	Economic Cost for BCR	Total Project Cost
			At Current Price Level (MM YYYY)		Fully Funded Estimates
01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD).	Estimated value/costs of LERRD for the project (to include breakout of related Federal administrative costs).	Y	Y***	Y
03 - 20	Construction Elements	Physical Construction cost estimate broken out by Civil Works Breakdown Structure (CWBS).	Y	Y	Y
30	Planning, Engineering, and Design (post feasibility work)	Estimated costs for post feasibility planning, engineering, and design for the project. This cost should include the estimate of Preconstruction Engineering and Design (PED) phase costs as well as the planning, engineering, and design costs during the construction phase to complete the project.	Y	Y	Y
31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
	Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y***	Y***
	Monitoring and Adaptive Management	This represents the estimated costs of monitoring and or adaptive management to be cost shared for the project.	Y	Y	Y
By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
	Continued Construction (periodic renourishment)	<b>For Coastal Storm Damage Reduction Only:</b> Estimate of periodic renourishment cost submitted for authorization.	Y	Y	Y
	Interest During Construction (IDC)	Estimate of interest accumulated during construction (Economic cost)	N	Y	N
	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Total Project Cost	N	N	Y
	Associated Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal, or other Federal agency, responsibility. These costs are required to be shown within the Chief's Report as a separate category but are not to be included within the project first costs.	N	Y	N
<p><b>*Civil Works Breakdown Structure</b></p> <p><b>**This matrix is for summary only and not intended to replace any current guidance.</b></p> <p><b>*** Note that some relocation assistance benefit payments are not included in the Benefit-to-Cost Ratio (BCR) and some cultural mitigation costs are not included in Total Project Costs.</b></p> <p><b>Y- included / N- Not include</b></p>					