

Total Project Cost (TPCS) BASICS:

A completed TPCS will show the overall project cost by feature account of a project and an estimate of the total cost to complete the project (fully funded estimate). It is essentially a summary of a programs cost by summing each construction contract by WBS feature and its estimated lands damages and associated administrative costs. These costs are escalated to the midpoint of construction and summed to give a fully funded cost.

Things you need to complete a TPCS:

- Projected budget year planned to obtain funding to support the project development and construction.
- Effective price level date of estimate.
- Estimate of construction costs for the appropriate work breakdown structure.
- Estimates for other accounts (lands, damages, real estate, relocations, etc)
- Midpoint of construction schedule.
- Midpoint of design schedule.
- Midpoint of Lands and Damages, Relocations...
- 30/31 accounts estimates or they may be calculated based on rule of thumb percentages (default on the spreadsheet).
- Risk Based contingencies.
- Current CWCCIS table (updated 2x per year, Mar and Sep) Downloadable from NWW's web site.

Other data that may be nice to know: (you will need this for the 902 limit)

- Authorization legislation and date.
- Baseline estimate (estimate presented to Congress for authorization) Most likely in a report by the Chief of Engineers. You need this for the Work Breakdown Structure (WBS) to track changes in the project.
- Amount actually authorized by Congress.
- Contracts awarded, contracts ongoing and the respective WBS code and amount (contingencies on completed work and ongoing construction are less than future construction work)
- Total of expenditures by WBS feature and year.

Total project cost spreadsheet sums the account costs for a project/program based on the estimate data entered and will calculate the 30/31 accounts based on the percentages input into the data sheet. (For the 30/31 accounts the spreadsheet default is to use the rule of thumb percentages from the data sheet. These may be changed accordingly either thru changing the percentages in the data sheet or may be adjusted for each item individually. (The Excel goal seeking function may be useful))

Things to remember:

- Estimates should be less than two years old (ER 1110-2-1302).
- Make sure you are using the latest CWCCIS table numbers for your TPCS!
- Check that the costs are reasonable for where you are at in the stage of the project! I.e. - If you have already completed the bid package for a contract and have it on the shelf you most likely have expended most of the design cost. Therefore the rule of thumb 30/31 account percentages and amounts may be too high.

How it works:

Each estimate for the project/program is entered on a separate page of the TPCS. The estimate value (from MCAGES) is entered in the left column of the page. Contingency is entered and the sum of the estimate and the total is calculated. Based on the date of the price level of the estimate, inflation is applied to bring the cost to the desired program year (middle column). From here the construction estimate is inflated to the midpoint of construction.

All of the estimates sum up to the top sheet (summary-its the one with the signature blocks on it). It is important to remember to check that the sheets sum correctly by WBS structure. Don't mix accounts!

Fully Funded Contracts that have had funds obligated but not expended usually are entered at fully funded award price with 10% contingency. In general they are assumed to be at program year price level.

For a non fully funded contract that have been awarded/escalation to the midpoint may be required. For this situation, make sure that you have an accurate total of estimated costs. TPCS Sheet. Generally Obligations should be entered as an estimate and expenditures should be totaled and put in the spent thru column on the summary page. The key is to exclude contingency and escalation on spent funds.

GENERAL INSTRUCTIONS:

This worksheet is setup to include a summary sheet and four (4) separate contracts with one Construction WBS code. If more "Contract" sheets are added, or you need to have multiple Construction WBS codes then:

- 1- Fill out project data- this will populate the signatory blocks, program year, preparation date, etc.
- 2- Change the "Sum" in reference column 3 to sum correctly to the sheets below,
- 3- Copy the revised formulas in column 3 to columns 4, 9 & 10, 15 & 16
- 4- Use row "X" to check the summation of the spreadsheet.
- 5- Select the appropriate Quarter for each item. Indexes & Time Period dates will come automatically. Check Time Periods.

COMPLETE THE BLUE FONT

DISTRICT LRH Huntington
 PROJECT NAME Village of Pomeroy Streambank Protection Project - Section 14
 PROJECT NO. 449640
 PROJECT LOCATION Pomeroy, OH
 PROGRAM YEAR 2018 2018Q1
 DATE TPCS PREPARED 16-Jun-16
 ENGINEERING REPORT AS BASIS CAP Feasibility STUDY - Pomeroy, OH

Enter responsible parties and percentages desired for 30/31 Accounts, this will populate the TPCS sheet dates and signatory block. Program Year sets the date for escalation calculations.

			Districts	
			% Vary	
ENGINEERING & DESIGN PHASE -> 30 ACCOUNT				
PROJECT MANAGER, xxx	Program Management:	2.50%	9.00%	30
CHIEF, DPM, xxx				30
CHIEF, PLANNING, xxx	Planning & Environmental Compliance:	1.00%	1.00%	30
CHIEF, ENGINEERING, xxx	Engineering & Design:	15.00%	13.00%	30
CHIEF, COST ENGINEERING, xxx				30
CHIEF, ENGINEERING, xxx	Engineering Tech. Review & I/E:	1.00%	1.00%	30
CHIEF, CONTRACTING, xxx	Contracting & Reopographica:	1.00%	1.00%	30
CHIEF, ENGINEERING, xxx	Engineering During Construction:	3.00%	1.00%	30
CHIEF, PLANNING, xxx	Planning During Construction:	2.00%	1.00%	30
CHIEF, OPERATIONS, xxx	Project Operation:	1.00%	1.00%	30
CONSTRUCTION PHASE -> 31 ACCOUNT				
CHIEF, CONSTRUCTION, xxx	Supervision & Assurance:	10.00%	7.50%	31
CHIEF, OPERATIONS, xxx	Project Operation:	2.00%	0.00%	30
CHIEF, DPM, xxx	Program Management:	2.50%	0.00%	31
REAL ESTATE -> 01 ACCOUNT				
CHIEF, REAL ESTATE, xxx				
CULTURAL RESOURCES -> 18 ACCOUNT				
CHIEF, PLANNING, xxx				
SPENT THRU FYXX COSTS				
CHIEF, PM-PB, xxxxx				

%s are based on construction dollars amounts. Accept default distribution of 30 and 31 accounts or Enter your preferred percentages or Use Goal Seek on each individual line within the TPCS spreadsheet to make the estimate match a 564

- 10/1/1980 1981 1981Q1 1-Oct-1980
- 10/1/1981 1982 1982Q1 1-Oct-1981
- 10/1/1982 1983 1983Q1 1-Oct-1982
- 10/1/1983 1984 1984Q1 1-Oct-1983
- 10/1/1984 1985 1985Q1 1-Oct-1984
- 10/1/1985 1986 1986Q1 1-Oct-1985
- 10/1/1986 1987 1987Q1 1-Oct-1986
- 10/1/1987 1988 1988Q1 1-Oct-1987
- 10/1/1988 1989 1989Q1 1-Oct-1988
- 10/1/1989 1990 1990Q1 1-Oct-1989
- 10/1/1990 1991 1991Q1 1-Oct-1990
- 10/1/1991 1992 1992Q1 1-Oct-1991
- 10/1/1992 1993 1993Q1 1-Oct-1992
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- 10/1/2001 2002 2002Q1 1-Oct-2001
- 10/1/2002 2003 2003Q1 1-Oct-2002
- 10/1/2003 2004 2004Q1 1-Oct-2003
- 10/1/2004 2005 2005Q1 1-Oct-2004
- 10/1/2005 2006 2006Q1 1-Oct-2005
- 10/1/2006 2007 2007Q1 1-Oct-2006
- 10/1/2007 2008 2008Q1 1-Oct-2007
- 10/1/2008 2009 2009Q1 1-Oct-2008
- 10/1/2009 2010 2010Q1 1-Oct-2009
- 10/1/2010 2011 2011Q1 1-Oct-2010
- 10/1/2011 2012 2012Q1 1-Oct-2011
- 10/1/2012 2013 2013Q1 1-Oct-2012
- 10/1/2013 2014 2014Q1 1-Oct-2013
- 10/1/2014 2015 2015Q1 1-Oct-2014
- 10/1/2015 2016 2016Q1 1-Oct-2015
- 10/1/2016 2017 2017Q1 1-Oct-2016
- 10/1/2017 2018 2018Q1 1-Oct-2017
- 10/1/2018 2019 2019Q1 1-Oct-2018
- 10/1/2019 2020 2020Q1 1-Oct-2019
- 10/1/2020 2021 2021Q1 1-Oct-2020
- 10/1/2021 2022 2022Q1 1-Oct-2021
- 10/1/2022 2023 2023Q1 1-Oct-2022
- 10/1/2023 2024 2024Q1 1-Oct-2023
- 10/1/2024 2025 2025Q1 1-Oct-2024
- 10/1/2025 2026 2026Q1 1-Oct-2025
- 10/1/2026 2027 2027Q1 1-Oct-2026
- 10/1/2027 2028 2028Q1 1-Oct-2027
- 10/1/2028 2029 2029Q1 1-Oct-2028
- 10/1/2029 2030 2030Q1 1-Oct-2029
- 10/1/2030 2031 2031Q1 1-Oct-2030
- 10/1/2031 2032 2032Q1 1-Oct-2031
- 10/1/2032 2033 2033Q1 1-Oct-2032
- 10/1/2033 2034 2034Q1 1-Oct-2033
- 10/1/2034 2035 2035Q1 1-Oct-2034
- 10/1/2035 2036 2036Q1 1-Oct-2035
- 10/1/2036 2037 2037Q1 1-Oct-2036
- 10/1/2037 2038 2038Q1 1-Oct-2037
- 10/1/2038 2039 2039Q1 1-Oct-2038
- 10/1/2039 2040 2040Q1 1-Oct-2039
- 10/1/2040 2041 2041Q1 1-Oct-2040
- 10/1/2041 2042 2042Q1 1-Oct-2041
- 10/1/2042 2043 2043Q1 1-Oct-2042
- 10/1/2043 2044 2044Q1 1-Oct-2043
- 10/1/2044 2045 2045Q1 1-Oct-2044
- 10/1/2045 2046 2046Q1 1-Oct-2045

10/1/2046	2047 2047Q1	1-Oct-2046
10/1/2047	2048 2048Q1	1-Oct-2047
10/1/2048	2049 2049Q1	1-Oct-2048
10/1/2049	2050 2050Q1	1-Oct-2049
10/1/2050	2051 2051Q1	1-Oct-2050
10/1/2051	2052 2052Q1	1-Oct-2051
10/1/2052	2053 2053Q1	1-Oct-2052
10/1/2053	2054 2054Q1	1-Oct-2053
10/1/2054	2055 2055Q1	1-Oct-2054
10/1/2055	2056 2056Q1	1-Oct-2055
10/1/2056	2057 2057Q1	1-Oct-2056
10/1/2057	2058 2058Q1	1-Oct-2057
10/1/2058	2059 2059Q1	1-Oct-2058
10/1/2059	2060 2060Q1	1-Oct-2059
10/1/2060	2061 2061Q1	1-Oct-2060
10/1/2061	2062 2062Q1	1-Oct-2061
10/1/2062	2063 2063Q1	1-Oct-2062
10/1/2063	2064 2064Q1	1-Oct-2063
10/1/2064	2065 2065Q1	1-Oct-2064
10/1/2065	2066 2066Q1	1-Oct-2065
10/1/2066	2067 2067Q1	1-Oct-2066
10/1/2067	2068 2068Q1	1-Oct-2067
10/1/2068	2069 2069Q1	1-Oct-2068
10/1/2069	2070 2070Q1	1-Oct-2069
10/1/2070	2071 2071Q1	1-Oct-2070
10/1/2071	2072 2072Q1	1-Oct-2071
10/1/2072	2073 2073Q1	1-Oct-2072
10/1/2073	2074 2074Q1	1-Oct-2073
10/1/2074	2075 2075Q1	1-Oct-2074
10/1/2075	2076 2076Q1	1-Oct-2075
10/1/2076	2077 2077Q1	1-Oct-2076
10/1/2077	2078 2078Q1	1-Oct-2077
10/1/2078	2079 2079Q1	1-Oct-2078
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10/1/2083	2084 2084Q1	1-Oct-2083
10/1/2084	2085 2085Q1	1-Oct-2084
10/1/2085	2086 2086Q1	1-Oct-2085
10/1/2086	2087 2087Q1	1-Oct-2086
10/1/2087	2088 2088Q1	1-Oct-2087
10/1/2088	2089 2089Q1	1-Oct-2088
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10/1/2091	2092 2092Q1	1-Oct-2091
10/1/2092	2093 2093Q1	1-Oct-2092
10/1/2093	2094 2094Q1	1-Oct-2093
10/1/2094	2095 2095Q1	1-Oct-2094
10/1/2095	2096 2096Q1	1-Oct-2095
10/1/2096	2097 2097Q1	1-Oct-2096
10/1/2097	2098 2098Q1	1-Oct-2097
10/1/2098	2099 2099Q1	1-Oct-2098
10/1/2099	2100 2100Q1	1-Oct-2099
10/1/2100	2101 2101Q1	1-Oct-2100

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.

Project First Cost (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).

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.

Type of Program	CWBS*	Project Cost Component**	Brief Definition	For Chief's Report		For PPA's
				Project First Cost Constant Cost Estimate "Oct (YYYY) Price Level"	Economic Cost for BCR	Total Project Cost Fully Funded Cost Estimate
Flood Risk Management	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
Flood Risk Management	02 - 20	Construction Elements	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
Flood Risk Management	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
Flood Risk Management	31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
Flood Risk Management		Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
Flood Risk Management	18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y***	Y
Flood Risk Management	By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
Flood Risk Management	By project element	Interest During Construction (IDC)	Estimate of interest accumulated during construction(Economic cost)	N	Y	Y
Flood Risk Management	By project element	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
Flood Risk Management	By project element	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Constant Dollar Cost	N	N	Y
Flood Risk Management	By project element	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 total but are not to be included within the cost shared project cost.	N	Y	Y
Ecosystem Restoration	01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD). This includes related Federal administrative costs.	Estimated value/costs of LERRD for the project (to include breakout of related Federal administrative costs).	Y	Y	Y
Ecosystem Restoration	03 - 20	Construction Elements	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
Ecosystem Restoration	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
Ecosystem Restoration	31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
Ecosystem Restoration		Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
Ecosystem Restoration	18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y***	Y
Ecosystem Restoration	By project element	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
Ecosystem Restoration	By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
Ecosystem Restoration	By project element	Interest During Construction (IDC)	Estimate of interest accumulated during construction(Economic cost)	N	Y	Y
Ecosystem Restoration	By project element	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
Ecosystem Restoration	By project element	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Constant Dollar Cost	N	N	Y
Ecosystem Restoration		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 total but are not to be included within the cost shared project cost.	N	Y	Y
Navigation and Harbors	01,02	Lands, Easements, Rights of Way, Relocations (LERR). This includes related Federal costs.	Estimated value/costs of LERR (to include breakout of related Federal administrative costs).	Y	Y	Y
Navigation and Harbors	03 - 20	Construction Elements (General Navigation Features)	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
Navigation and Harbors	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
Navigation and Harbors	31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
Navigation and Harbors		Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
Navigation and Harbors	18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y***	Y

Navigation and Harbors	By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
Navigation and Harbors	By project element	Interest During Construction (IDC)	Estimate of interest accumulated during construction(Economic cost)	N	Y	Y
Navigation and Harbors	By project element	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
Navigation and Harbors	By project element	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Constant Dollar Cost	N	N	Y
Navigation and Harbors	By project element	Local Service Facilities (LSF)	For Navigation Only: 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 PCA if they are necessary for project benefits to accrue.	N	Y	Y
Navigation and Harbors		Associated and Other Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal responsibility. These cost are required to be shown within the Chief's report, as a separate total but are not to be included within the cost shared project cost.	N	Y	Y
Inland Navigation	01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD). This includes related Federal administrative costs.	Estimated value/costs of LERRD for the project (to include breakout of related Federal administrative costs).	Y	Y	Y
Inland Navigation	03 - 20	Construction Elements (General Navigation Features)	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
Inland Navigation	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
Inland Navigation	31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
Inland Navigation		Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
Inland Navigation	18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y***	Y
Inland Navigation	By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
Inland Navigation	By project element	Interest During Construction (IDC)	Estimate of interest accumulated during construction(Economic cost)	N	Y	Y
Inland Navigation	By project element	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
Inland Navigation	By project element	Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Constant Dollar Cost	N	N	Y
Inland Navigation	By project element	Local Service Facilities (LSF)	For Navigation Only: 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 PCA if they are necessary for project benefits to accrue.	N	Y	Y
Inland Navigation		Associated and Other Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal responsibility. These cost are required to be shown within the Chief's report, as a separate total but are not to be included within the cost shared project cost.	N	Y	Y
COASTAL STORM	01,02	Lands, Easements, Rights of Way, Relocations, and Dredged Material Disposal Areas (LERRD). This includes related Federal administrative costs.	Estimated value/costs of LERRD for the project (to include breakout of related Federal administrative costs).	Y	Y	Y
COASTAL STORM	03 - 20	Construction Elements	Physical Construction cost estimate broken out by Civil Works Breakdown Structure(CWBS).	Y	Y	Y
COASTAL STORM	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
COASTAL STORM	31	Construction Management	Estimated costs for construction management of project	Y	Y	Y
COASTAL STORM		Fish and Wildlife Mitigation	Estimated costs of Mitigation	Y	Y	Y
COASTAL STORM	18	Cultural Mitigation	Estimated costs of Mitigation	Y	Y***	Y
COASTAL STORM	By project element	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
COASTAL STORM	By project element	Contingency	This is the Risk Based contingency established for the project.	Y	Y	Y
COASTAL STORM	By project element	Continued Construction (periodic nourishment)	For Hurricane and Storm Damage Reduction Only: Estimate of Allowable Periodic Average future construction cost submitted for authorization.	Y	Y	Y
COASTAL STORM	By project element	Interest During Construction (IDC)	Estimate of interest accumulated during construction(Economic cost)	N	Y	Y
COASTAL STORM	By project element	Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)	Annualized estimate of Operation, Maintenance, Replacement and Rehabilitation cost.	N	Y	N
COASTAL STORM		Inflation through midpoint construction	Estimate of inflation using appropriate Civil Works Construction Cost Index System (CWCCIS) factors applied to the Constant Dollar Cost	N	N	Y
COASTAL STORM		Associated and Other Costs	Associated financial costs that are not part of the recommended Federal project but are a necessary non-Federal responsibility. These cost are required to be shown within the Chief's report, as a separate total but are not to be included within the cost shared project cost.	N	Y	Y

Feature Code Definitions

CWBS	Definitions
01 Lands and Damages	<p>This feature includes all costs of acquiring for the project (by purchase or condemnation) real property or permanent interests therein, including Government costs, damages, and costs of disposal of real estate. Government costs include planning expenses for the real estate portion of the General Design Memo and for the detailed Real Estate Memo; and project real estate office administration, surveys, and marking for land acquisition purposes and appraisals.</p> <p>For projects which require that costs be incurred on real estate activities, i.e., for records search, appraisals, and field inspection to assure compliance by local interests in the provision of local requirements on projects where no Federal land acquisition is involved, a memorandum statement will be provided with the PB-3 indicating the estimated costs of such real estate activities. These costs will be charged to feature 30, Engineering and Design and that feature will be properly footnoted to show the amount of such costs. A similar footnote will be shown on the PB-1's and PB-2a's for all such projects. This feature is credited with disposal receipts from sale of such items as standing crops, standing timber, structures, and improvements in place and acquired with the land. Disposal receipts from sale of excess land not turned in to the U.S. Treasury as miscellaneous receipts are credited to this feature. Lands or interests purchased for relocations and conveyed to others are included in the feature "Relocations." Temporary interests such as leases are included in the feature or distributive item benefited thereby.</p>
02 Relocations	<p>This feature includes removing and relocating, or reconstructing property of others, such as roads, railroads, cemeteries, utilities, buildings, and other structures; and lands or interests purchased for such relocations and conveyed to others, including real estate planning and acquisition expenses. The cost of removal of improvements from the reservoir area for disposal is included in the feature "Reservoirs." All alterations of railroad bridges in accordance with Section 3 of the 1946 Flood Control Act (22 USC 701p) are also included in this feature.</p>
03 Reservoirs	<p>This feature includes clearing lands in reservoirs and pools of debris, brush, trees, improvements, and structures. Any salvage, obtained by sale or disposal by the Government, of material removed in clearing operations is credited to this feature. This feature also includes bank stabilization, shoreline improvement, firebreaks, fencing, boundary line survey and marking of land which has been acquired or is to be acquired, rehabilitation of natural resources, erosion control, drainage, and rim grouting and mine sealing, etc., to prevent leakage. Site clearing, grouting, etc., incidental to and required for specific construction features is included as part of the construction features.</p>
04 Dams	<p>This feature includes dams and all other water collecting and storage facilities, whether man-made or natural, together with appurtenant diversion, regulation, and delivery facilities and spillways, outlet works, and power intake works, whether separate from the dam or not. In the case where the powerhouse is an integral part of the intake dam, the cost of the power intake dam is included in the feature "Power Plant." Any auxiliary dams or spillways detached from the main structures and floating trash and drift booms and barriers are included in this feature. The power intake works include such power items as forebay, penstocks, tunnels, surge tank, gates, operating equipment, and appurtenances. Service roads and service railroads on the dam are included in this feature. The additional cost of relocating highways and railroads across the dam is included in the feature "Relocations."</p>
05 Locks	<p>This feature includes facilities to provide for passage of waterborne traffic, including gates, valves, operating mechanisms, cribs, fills, lock walls, guide and guard walls, operating buildings, and excavation therefore. The lock structure is considered that part of the work within the limit lines extending from the upper end of the upper guide or guard walls to the lower end of the lower guide or guard walls, including dolphins within the lock approaches for tie up, guard, or guide purposes. Excavation or dredging required in approaches outside of the limits defined above for the lock structure is included in the feature "Channels and Canals." The cost of a cofferdam or other properly allocable amount thereof, if required, is charged to this feature. Locks provided in connection with facilities for the prevention of encroachment of salt water are included in this feature. Locks in connection with fish facilities are included in the feature "Fish and Wildlife Facilities."</p>
06 Fish and Wildlife Facilities	<p>This feature includes items such as ladders, elevators, locks and related facilities for passage of fish at dams and navigation locks and maintenance of fish runs; and provision for wildlife preservation.</p>
07 Power Plant	<p>This feature includes those facilities specifically required for the production of power other than those included in the feature "Dams," and consists of the following: powerhouse, turbines and governors, generators, accessory electrical equipment, miscellaneous power plant equipment, switchyard, and tailrace improvement for power. In the case where the powerhouse is an integral part of the power intake dam, the cost of the power intake dam is included in this feature. Where the structure of a dam also forms the foundation of the powerhouse, such foundation is considered a part of the dam. Units for production of power for the operation only of navigation, flood control, or other purpose projects (excluding those projects with power as a feature) are included in other than this feature. The cost of a cofferdam or appropriate part is charged to this feature.</p>
08 Roads, Railroads and Bridges	<p>This feature includes permanent roads, railroads, and bridges required for access and other purposes in connection with the construction and operation of the project. This feature does not include roads, railroads, and bridges chargeable to the feature "Relocations," access roads to recreation facilities and areas, which will be charged to the feature "14. Recreation Facilities," and service roads and service railroads on structures.</p>
09 Channels and Canals	<p>This feature includes all forms of excavation (including dredging, preparation of spoil disposal area, and attendant facilities) necessary for the development and construction of channels, harbors, and canals for navigation purposes; and deepening, providing new, or improving existing watercourses for flood control and major drainage. Excavation of natural watercourse to provide adequate depths for navigation is included. Excavation for specific structures, such as dams and locks used in the development of waterways and conservation of water resources, is included with such structures. The removal of trees, brush, accumulated snags, drift, debris, water hyacinths and other aquatic growths from canals, harbors, and channels in navigable streams and tributaries thereof for navigational included in this feature. Excavation, clearing, and removal of accumulated snags, drifts, debris, and vegetable growth from streams for flood control and major drainage purposes also is included. Included in this feature are revetments, linings, dikes, and bulkheads constructed as channel improvement works for flood control or navigation, as against such items constructed for bank stabilization only. Also included are jetties constructed in connection with flood control channel improvements.</p>
10 Breakwaters and Seawalls	<p>This feature includes breakwaters, seawalls, piers, and like improvements constructed in connection with the protection of beaches, harbors, shores*, and port facilities against the force of waves and encroachment of seas or lakes by direct wave action. Jetties, groins, and like structures provided in seas, lakes, tidewater reaches of rivers and canals, and harbors to control water flow and current, to maintain depth of channels, and to provide protection, are included in this feature.</p>
11 Levees and Floodwalls	<p>This feature includes embankments and walls constructed to protect areas from inundation by overflow from creeks, rivers, lakes, canals, and other bodies of water. This feature consists of such items as: service roads on levee crown or landside berms, road ramps, closure structures, seepage control measures, erosion protection measures on levee slopes and on berms and bank slopes when an integral part of the levees or floodwalls; and drainage facilities, constructed to provide means for the passage of accumulated drainage and seepage water and sewage from the protected area over or through levees and floodwalls, comprising such items as interceptor and collection sewers and ditches, and pressurized sewers and drainage structures, including outfalls through levees or floodwalls. Pumping plants are included in the feature "Pumping Plants." Levees locally called dikes are included in this feature.</p>
13 Pumping Plants	<p>This feature includes pumping plants construction to pass accumulated drainage and seepage water and sewage from the protected area over or through levees and floodwalls.</p>
14 Recreation Facilities	<p>This feature includes access roads; parking areas; public camping and picnicking areas, including tables and fireplaces; water supply; sanitary facilities; boat launching ramps; directional signs; and other facilities constructed primarily for public recreational use, including essential safety measures in connection therewith. The latter includes, as appropriate, sheltered anchorage areas for small craft, bathing areas readily accessible and reasonably safe, and safety provisions for visitors and fishermen in the project area. (Boat launching ramps, anchorage areas and beaches should be provided during construction to the extent they will definitely be needed and can be accomplished more economically than at a later date.)</p>
15 Floodway Control and Diversion Structures	<p>This feature includes floodway control and diversion structures to provide for the release of flood waters from streams where discharges exceed flood capacity of the stream, including items such as diversion dams, gated or ungated discharge structures, training walls, stilling basin, and those adjacent embankment sections forming part of the control structure. Construction of channels and levees not forming part of the main control structure, but necessary for operation of such structures is included in the appropriate feature "Channels and Canals" or "Levees and Floodwalls."</p>
16 Bank Stabilization	<p>This feature includes revetments, linings, training dikes, and bulkheads for stabilization of banks of watercourses to prevent erosion, sloughing, or meandering. Bank stabilization constructed in navigation channels or in connection with flood control channel improvement is included in the feature "Channels and Canals."</p>
17 Beach Replenishment	<p>This feature includes replacement of eroded beaches, for purposes of recreation and shore protection, by direct deposit of materials obtained by dredging or land excavation.</p>
19 Buildings, Grounds and Utilities	<p>This feature includes permanent facilities such as operators' quarters, administration and shop buildings, storage buildings and areas, garage buildings and areas, community buildings, local streets and sidewalks, landscaping, and electric, gas, water, and sewage facilities. Where space in a dam, powerhouse, or other basic structure is used in lieu of construction of any of the above-mentioned buildings, such allocated space is not separated from the basic structure. Communication systems are included in the feature "Permanent Operating Equipment."</p>
20 Permanent Operating Equipment	<p>This feature includes all project-owned operation and maintenance tools and equipment, such as laboratory, shop, warehousing, communications, and transportation equipment, and office furniture and equipment. The cost of installing sedimentation and degradation measuring facilities, including the surveys requisite to locating and monumenting range layouts, is charged to this feature. *The cost of planning the installation of sedimentation and degradation ranges is charged to the feature "Engineering and Design."</p>
30 Engineering and Design	<p>This feature includes all engineering, design, surveys, preparation of detailed plans and specifications, and related work required for the construction of the project, including relocations. Surveys and planning required in connection with land acquisition are charged to the features "Lands and Damages" or "Relocations," as applicable. Engineering and design performed by hired labor or as a pay item under a contract is included in this feature.</p>
31 Supervision and Administration	<p>This feature includes such functions as inspection, supervision, project office administration, and distributive costs of area office and general overhead charged to the project. Costs for OCE and Division Office Executive Direction and Management are not charged to Construction, General but to the General Expenses appropriation title.</p>

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: **Village of Pomeroy Streambank Protection Project - Section 14**
 PROJECT NO: **449640**
 LOCATION: **Pomeroy, OH**

DISTRICT: **LRH Huntington**

PREPARED: **6/16/2016**

POC: **CHIEF, COST ENGINEERING, xxx**

This Estimate reflects the scope and schedule in report; CAP Feasibility STUDY - Pomeroy, OH

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)					TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	REMAINING COST (\$K)	2018 Program Year (Budget EC): Effective Price Level Date: 1-Oct- 17 Spent Thru: 3/11/2016	TOTAL FIRST COST (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
16	BANK STABILIZATION	\$1,121	\$324	29%	\$1,444		\$1,121	\$324	\$1,444		\$1,444		\$1,121	\$324	\$1,444
18	CULTURAL RESOURCE PRESERVATION	\$33	\$2	7%	\$35		\$33	\$2	\$35		\$35		\$33	\$2	\$35
	CONSTRUCTION ESTIMATE TOTALS:	\$1,154	\$326		\$1,480		\$1,154	\$326	\$1,480		\$1,480		\$1,154	\$326	\$1,480
01	LANDS AND DAMAGES	\$22	\$1	5%	\$23	3.3%	\$22	\$1	\$24		\$24		\$22	\$1	\$24
30	PLANNING, ENGINEERING & DESIGN	\$280	\$20	7%	\$300	6.4%	\$298	\$21	\$319		\$319	0.2%	\$298	\$21	\$320
31	CONSTRUCTION MANAGEMENT	\$87	\$6	7%	\$93	6.4%	\$93	\$7	\$99		\$99	1.9%	\$94	\$7	\$101
	PROJECT COST TOTALS:	\$1,542	\$353	23%	\$1,895		\$1,566	\$355	\$1,921		\$1,921	0.1%	\$1,569	\$355	\$1,924

- _____ CHIEF, COST ENGINEERING, xxx
- _____ PROJECT MANAGER, xxx
- _____ CHIEF, REAL ESTATE, xxx
- _____ CHIEF, PLANNING, xxx
- _____ CHIEF, ENGINEERING, xxx
- _____ CHIEF, OPERATIONS, xxx
- _____ CHIEF, CONSTRUCTION, xxx
- _____ CHIEF, CONTRACTING, xxx
- _____ CHIEF, PM-PB, xxxx
- _____ CHIEF, DPM, xxx

ESTIMATED TOTAL PROJECT COST: \$1,924
 ESTIMATED FEDERAL COST: **65%** \$1,250
 ESTIMATED NON-FEDERAL COST: **35%** \$673

22 - FEASIBILITY STUDY (CAP studies): \$200
 ESTIMATED FEDERAL COST: \$165
 ESTIMATED NON-FEDERAL COST: \$35

ESTIMATED FEDERAL COST OF PROJECT \$1,415

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: Village of Pomeroy Streambank Protection Project - Section 14
 LOCATION: Pomeroy, OH
 This Estimate reflects the scope and schedule in report; CAP Feasibility STUDY - Pomeroy, OH

DISTRICT: LRH Huntington
 POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 6/16/2016

WBS Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: 3/11/2016		Program Year (Budget EC): 2018										
		Estimate Price Level: 1-Oct-15		Effective Price Level Date: 1-Oct-17										
WBS NUMBER	Civil Works Feature & Sub-Feature Description	RISK BASED				ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	ESC (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
		COST (\$K)	CNTG (%)	CNTG (%)	TOTAL (\$K)									
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
PHASE 1 or CONTRACT 1														
16	BANK STABILIZATION	\$1,121	\$324	28.9%	\$1,444		\$1,121	\$324	\$1,444	2016Q1		\$1,121	\$324	\$1,444
18	CULTURAL RESOURCE PRESERVATION	\$33	\$2	7.0%	\$35		\$33	\$2	\$35	2016Q1		\$33	\$2	\$35
CONSTRUCTION ESTIMATE TOTALS:		\$1,154	\$326	28.3%	\$1,480		\$1,154	\$326	\$1,480			\$1,154	\$326	\$1,480
01	LANDS AND DAMAGES	\$22	\$1	5.0%	\$23	3.3%	\$22	\$1	\$24	2018Q1		\$22	\$1	\$24
30	PLANNING, ENGINEERING & DESIGN													
0.05	Project Management	\$58	\$4	7.1%	\$62	6.4%	\$62	\$4	\$66	2018Q1		\$62	\$4	\$66
0.01	Planning & Environmental Compliance	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
0.13	Engineering & Design	\$150	\$11	7.1%	\$161	6.4%	\$160	\$11	\$171	2018Q1		\$160	\$11	\$171
0.01	Engineering Tech Review ITR & VE	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
0.01	Contracting & Reprographics	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
0.01	Engineering During Construction	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q3	1.9%	\$13	\$1	\$14
0.01	Planning During Construction	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q3	1.9%	\$13	\$1	\$14
0.01	Project Operations	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
31	CONSTRUCTION MANAGEMENT													
0.075	Construction Management	\$87	\$6	7.1%	\$93	6.4%	\$93	\$7	\$99	2018Q3	1.9%	\$94	\$7	\$101
	Project Operation:			7.1%										
	Project Management			7.1%										
CONTRACT COST TOTALS:		\$1,542	\$353		\$1,895		\$1,566	\$355	\$1,921			\$1,569	\$355	\$1,924

Date of Index Factors: 31-Mar-16

CWCCIS ESCALATION CALCULATION

Enter Code below

11 LEVEES & FLOODWALLS

15 th row

	Pick FY Quarter - Check Dates	FY Quarter	Dates	Index
Estimate Pricing Level Date:		1980Q1		270.52 /
Middle Point of Construction Date:		2015Q2		825.49 =

Escalation Percentage: -> **305.15%**

Paste the Web Address into browser for downloadable (.pdf) source of factors: