

Civil Works Program-Specific Information - REF8010

Scope

Authority and database sources for Civils Works estimates need to be better defined. The Business process for Civil Works should define how a formal approved cost estimate is generated, entered, and maintained within the CW business process. Again there needs to be checks and balances mandated within templates to require validation and accuracy of cost estimates reported within P2. Response: Noted.

CW process and template needs to include the generation and input requirements for cost data (estimates) as early as the study phase (Reconnaissance). This may occur even prior to work acceptance as currently defined by the process. Response: CW P2 Team will review and evaluate.

This reference document includes Civil Works Program-specific reference information necessary to supplement the overall Project Delivery Processes. This supplemental information is necessary in order to satisfy the specific needs of all projects funded under Civil Works Appropriations, whether direct funded or reimbursable. The document includes such items as the Civil Works Program and Budget Process, Civil Works Operation and Maintenance Automated Budget Process (ABS) interface, Work Breakdown Structure WBS(s), Activity Templates, Milestones, Contingency Funds Management, Comment Fields, and Civil Works Data Checklist.

Distribution

Project Delivery Team (PDT)

Project Manager (PM)

Ownership

The BP/P2 Configuration Manager is responsible for ensuring that this document is necessary and that it reflects actual practice.

Civil Works Program and Budget Process

This process describes the requirements for the development and submission of the Annual Civil Works Program and Budget in accordance with EC 11-2-18(X) for each fiscal year. The process

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covers an approximate 21-month time frame and therefore includes information relative to the CFY, CFY+1, CFY+2 and CFY+3. Appropriate linkages to the overall Project Delivery Process are included, especially for major events such as initial development and submission of the budget, OMB passback and reclama, capability development, budget defense, and ultimate appropriation of funds. The process also describes how budget versions of the active project schedule will be developed and used in P2 to model the data necessary for the Civil Works Program and Budget. This process incorporates the program and budget development functionality of PRISM, which will be replaced by P2 upon full deployment.

A supplemental process to interface P2 with the Civil Works Operations and Maintenance Automated Budget System (ABS) is also under development, and will be linked to the Civil Works Program and Budget Process when completed.

Refer to *Civil Works Program and Budget Cycle – PROC7000[PROC7000]* .

Civil Works Operation and Maintenance Automated Budget Process (ABS) Interface

USACE prepares for the operation and maintenance of its Civil Works facilities in two distinct phases. The first phase is the development of a budget for the O&M program and the second is the execution of all activities within the program. Appendix C of the Program Development Guidance specifies the procedures for developing the O&M budget. The Guidance sets a budget target in dollars for each MSC. The budget is then built from the ground up. Each project operations manager creates work packages – a set of tasks that can be done independently – needed to operate and maintain his project. All work packages from projects are grouped at the District, then Division and finally USACE-wide. Work packages are ranked in importance at each level across all projects and business areas. The most important work packages are funded up to the budget target. Those work packages not included in the budget are considered part of the O&M backlog.

The Automated Budget System (ABS) is the automated information system (AIS) built and adapted to fit the O&M program development process. The ABS stores the full set of operating USACE projects, facilitates the creation of work packages and the ranking process, and includes a set of tools to analyze and report the impacts of different budget scenarios. The P2 AIS can be adapted to replace the ABS, but this change will require some time to complete.

The ABS does not help manage the execution of the O&M program. The final piece of information contained in ABS during a budget cycle is the work allowance given to each project and the work packages included in the work allowance. The management of the execution of the O&M program is done via PRISM, PROMIS, CEFMS, and other methods. P2 can be used immediately to replace these other methods for managing the execution of the O&M program.

The interface between ABS and P2 will specify a mapping of ABS projects, work packages, work category codes and funded status to P2 projects, work breakdown structure and activities. The transfer of ABS data into P2 will provide a starting point for a critical path of activities. Each manager will have to adjust project data, due to the differences in the way ABS and P2

handle budget data. The ABS interface document will specify the mapping between ABS and P2 and suggest methods for adjusting data after the transfer.

Work Breakdown Structure (WBS)

One WBS has been standardized for use across all specifically authorized civil works projects. Separate Work Breakdown Structures have been developed for the Operations, Maintenance, Regulatory, Emergency Operations, Continuing Authorities, and the Formerly Used Sites Remedial Action Program (FUSRAP) because of the unique characteristics and requirements of these programs. The WBS includes elements that outline the categories of work (products or services) that are necessary for successful project delivery and upward reporting through the basic phases of project planning, project execution and control, and project closeout. The activities necessary to produce the products or services are added in the Activity Templates in order to actually schedule and resource the work. Some WBS elements may not be applicable to all projects. WBS codes are being standardized to the maximum extent possible across Civil Works, Military, Environmental, and IIS (SFO) programs. There is no Civil Works WBS code for Value Engineering. Value Engineering should also be identified as a milestone with a standardized code to ensure that the study has been completed as required by law and to allow for upward reporting and analysis. Response: CW P2 Team will review and evaluate.

Projects Specifically Authorized by Congress

- 01000 – Project Management Plan (PMP)
- 10000 – Reconnaissance Report / Section 905(b) Analysis (Recon)
- 11000 – Feasibility Study Cost Sharing Agreement (FCSA)
- 20000 – Feasibility Report (Feas)
- 30000 – Pre-Construction Engineering and Design (PED) Agreement
- 31000 – Limited /General Reevaluation Report (LRR/GRR)
- 32000 – Design Documentation Report (DDR)
- 40000 – Project Cooperation Agreement (PCA)
- 41000 – PCA Escrow Agreement
- 50000 – Construction Contract Documents
- 60000 – Construction
- 61000 – Engineering & Design (E&D) During Construction

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62000 – Supervision and Administration (S&A)

70000 – Fiscal Closeout

80000 – Final Closeout and Sponsor / USACE assumption of OMRR&R.

Operations

90000 – Project Management Plan (PMP)

90050 – Contractor Earnings

90100 – O&M of Structures, Facilities, Equipment

90150 – Studies and Surveys

90200 – Dam Safety

90250 – Water Management

90300 – Environmental Management

90350 – Dredging Activities

90400 – Real Estate Actions

90450 – Baseline Management of Structures, Facilities, Equip (except Dredging)

90500 – Non-Baseline Management of Structures, Facilities, Equip (except Dredging)

90550 – Remaining O&M Funded Major Rehab (Complete Replacement) Projects

90600 – Recreation

Maintenance

91000 – Project Management Plan (PMP)

91050 – Contractor Earnings

91100 – O&M of Structures, Facilities, Equipment

91150 – Studies and Surveys

91200 – Dam Safety

91250 – Water Management

91300 – Environmental Management

91350 – Dredging Activities

91400 – Real Estate Actions

91450 – Baseline Management of Structures, Facilities, Equip (except Dredging)

91500 – Non-Baseline Management of Structures, Facilities, Equip (except Dredging)

91550 – Remaining O&M Funded Major Rehab (Complete Replacement) Projects

91600 – Recreation

Regulatory

92000 – Project Management Plan (PMP)

92050 – Permit Evaluation

92100 – Enforcement

92150 – Administrative Appeals

92200 – Studies

92250 – Other Navigation Regulations

92300 – Regulatory Environmental Impact Statements

92350 – Jurisdictional Determinations

Emergency Operations

93000 – Project Management Plan (PMP)

Continuing Authorities Program (CAP)

Section 14/208 and Section 204/206/1135 – PDA

94000 – Initial Appraisal / Fact Sheet

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94050 - Project Management Plan (PMP)
94100 - Planning and Design (PDA) Analysis
94150 – Report and Project Approval
94200 – Commitment of Construction Funds
94250 – Project Cooperation Agreement (PCA)
94300 – Construction Contract Documents
94350 – Construction
94400 – Engineering & Design (E&D) During Construction
94450 – Supervision and Administration (S&A)
94500 – Fiscal Closeout
94550 – Final Closeout and Sponsor assumption of OMRR&R

Section 103/107/111/205 and Section 204/206/1135- Feas

95000 – Initial Appraisal / Fact Sheet
95050 - Project Management Plan (PMP)
95100 – Feasibility Cost Sharing Agreement (FCSA)
95150 – Feasibility Study / Detailed Project Report (DPR)
95200 – Plans & Specs
95250 – Project Approval
95300 –Commitment of Construction Funds
95350 – Project Cooperation Agreement (PCA)
95400 – Construction Contract Documents
95450 – Construction
95500 – Engineering & Design (E&D) During Construction
95550 – Supervision and Administration (S&A)

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95600 – Fiscal Closeout

95650 – Final Closeout and Sponsor assumption of OMRR&R

Formerly Used Sites Remedial Program (FUSRAP)

96000 – Project Management Plan (PMP)

96050 – Preliminary Assessment (PA)

96100 – Site Investigation (SI)

96150 – Remedial Investigation (RI)

96200 – Feasibility Study (FS)

96250 – Engineering Evaluation / Cost Analysis (EE/CA)

96300 – Technical Assistance

96350 – Project Mgmt and Pre-Remedial Action

96400 – Remedial Design (RD)

96450 – Interim Remedial Action

96500 – Remedial Action (RA)

96550 – Remedial Action – Operation (RA-O)

96600 – Long Term Monitoring

96650 – Post Remedial Action / Fiscal Closeout

96700 – Real Estate Analyses

96750 – Potentially Responsible Party (PRP) Analyses

Activity Templates

Individual Activity Templates have been developed for each element of the WBS, by adding the recommended underlying activities that are necessary to be performed to produce the associated product or service. Activity Templates can be linked end-to-end to produce complete project templates that encompass programmatic phases of a project, such as General Investigations (Recon-FSCA-Feasibility-PED Agreement-Plans & Specs), etc.

The Activity Templates include the minimum milestones required for program/project execution and control and upward reporting, and the order of the activities in the template establishes the general basis of the subsequent schedule logic. In P3e, the Activity Templates form the backbone for program/project delivery that is fleshed out by adding appropriate activity durations, logic linkages, and resources. Activities included in the templates can be modified, deleted, or ignored, based on the requirements of the particular project or PDT preference. However, caution should be used in deleting activities associated with required milestones, to ensure that all mandatory milestones are represented. The user can add activities and logic, but in doing so, must make sure that all mandatory milestones are included at the appropriate location to capture required data, and that all added activities are properly aligned with the WBS. To assure uniformity of coding and reporting on categories of work, Work Category Codes (WCC) and Work Category Elements (WCE) have been embedded at the WBS level. Feature/sub-feature information will be entered as Activity Code data in P3e. Project Purpose will be entered as Project Code data in Oracle Projects.

At this time, Activity Templates are provided for the following:

Projects Specifically Authorized by Congress:

Project Management Plan (PMP)

Reconnaissance Report / Section 905(b) Analysis (Recon)

Feasibility Study Cost Sharing Agreement (FCSA)

Feasibility Report (Feas)

Pre-Construction Engineering and Design (PED) Agreement

Limited / General Reevaluation Report (LRR/GRR)

Design Documentation Report (DDR)

Project Cooperation Report (PCA)

PCA Escrow Agreement

Construction Contract Documents

Construction

Engineering and Design (E&D) During Construction

Supervision and Administration (S&A)

Fiscal Closeout

Final Closeout and Sponsor/USACE Assumption of OMRR&R

Operations

Project Management Plan (PMP)

Contractor Earnings

O&M of Structures, Facilities, Equipment

Studies and Surveys

Dam Safety

Water Management

Environmental Management

Dredging Activities

Real Estate Actions

Baseline Management of Structures, Facilities, Equip (except Dredging)

Non-Baseline Mgmt of Structures, Facilities, Equip (except Dredging)

Remaining O&M Funded Major Rehab (Complete Replacement) Projects

Recreation

Maintenance

Project Management Plan (PMP)

Contractor Earnings

O&M of Structures, Facilities, Equipment

Studies and Surveys

Dam Safety

Water Management

Environmental Management

Dredging Activities

Real Estate Actions

Baseline Management of Structures, Facilities, Equip (except Dredging)

Non-Baseline Mgmt of Structures, Facilities, Equip (except Dredging)

Remaining O&M Funded Major Rehab (Complete Replacement) Projects

Recreation

Regulatory

Project Management Plan (PMP)

Permit Evaluation

Enforcement

Administrative Appeals

Studies

Other Navigation Regulations

Regulatory Environmental Impact Statements

Jurisdictional Determinations

Emergency Operations

Continuing Authorities Program (CAP)

Project Management Plan (PMP)

Planning and Design (PDA) Analysis

Feasibility Cost Sharing Agreement (FCSA)

Feasibility Study / Detailed Project Report (DPR)

Plans & Specs

Report and Project Approval

Commitment of Construction Funds

Project Cooperation Agreement (PCA)

Construction Contract Documents

Construction

Engineering & Design (E&D) During Construction

Supervision and Administration (S&A)

Fiscal Closeout

Final Closeout and Sponsor assumption of OMRR&R

Formerly Used Sites Remedial Action Program (FUSRAP)

Project Management Plan (PMP)

Preliminary Assessment (PA)

Site Investigation (SI)

Remedial Investigation (RI)

Feasibility Study (FS)

Engineering Evaluation / Cost Analysis (EE/CA)

Technical Assistance

Project Mgmt and Pre-Remedial Action

Remedial Design (RD)

Interim Remedial Action

Remedial Action (RA)

Remedial Action – Operation (RA-O)

Long-Term Monitoring

Post Remedial Action / Fiscal Closeout

Real Estate Analyses

Potentially Responsible Party (PRP) Analyses

Other

A/E or Services Contract Selection/Award – Fixed Price or Indefinite Delivery

A/E or Services Contract Award – Delivery/Work Order

Construction Contract – Open, Competitive Bid

Construction Contract – Request for Proposal (RFP) / Negotiated Procurement

Construction Contract – Small Business Set Aside

Real Estate

Milestones

Milestones are activity codes in P3e and are assigned to zero-duration activities marking the start or completion of a significant event. As a best business practice, a minimum set of required milestones has been pre-defined within each Activity Template for the benefit of the PDT, District-level management, and to satisfy corporate data needs at the MSC and HQUSACE levels. Since the Activity Templates may be modified for local use, these required milestones may be assigned to other activities. Some milestones such as “EA or FONSI Complete” may apply to multiple Activity Templates, and therefore may appear more than once in the overall project schedule. Additional, locally-defined milestones may be added to any activity to facilitate project execution and control. To the maximum extent possible, common milestones that occur across civil works, military, environmental and R&D programs, such as “Contract Award” have common, standard definitions and coding to facilitate communications and reporting.

Projects Specifically Authorized by Congress

Milestone Code	Milestone Name
	PMP Start
	PMP Approval
	Recon Report Start
	Draft Recon Report Submittal
	Recon Report Approval
	FCSA Start
	Draft FCSA Submittal
	FCSA Execution
	Feasibility Study Start
	EA or FONSI Complete
	EIS or SEIS Complete
	Water Quality Certification Received

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CZM Compliance Received
AFB Documentation Submittal
AFB
AFB PGM Issued
Draft Feas Report Submittal
Final Feas Report w/NEPA Submittal
Feas Report Approval
Public Review Period Start
WSC Commander's Public Notice
Chief's Report to ASA(CW)
ASA(CW) Submittal to Congress
PED Agreement Start
PED Agreement Package Submittal
PED Agreement Submittal to ASA(CW)
PED Agreement Approval
PED Agreement Execution
LRR/GRR Start
ROD Signed
Draft LRR/GRR Submittal
Final LRR/GRR w/NEPA Submittal
LRR/GRR Approval
DDR Start
VE Complete
DDR Approval
DDR Submittal

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PCA Start
PCA Package Submittal
PCA Approval
PCA Submittal to ASA(CW)
PCA Execution
Escrow Agreement Start
Escrow Agreement Submittal
Escrow Agreement Approval
Escrow Agreement Submittal to ASA(CW)
Escrow Agreement Execution
Plans & Specs Start
Draft Plans & Specs Complete
Plans & Specs Approval
Real Estate Acquisition Start
Real Estate Acquisition Complete
Sponsor notification of RE Requirements
Receipt of Real Estate
Real Estate Credits certified
NPDES Permit Application
NPDES Permit Received
RTA
Sponsor's Construction Funds Received
Construction Contract Advertised / RFP
Bid Opening
Construction Contract Award

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Construction Contract NTP
Construction Physical Completion
Project Fiscal Closeout
Final Acceptance/Transfer to Sponsor
Final Acceptance/Transition to O&M

Operations

Milestone Code Milestone Name
(Under Development)

Maintenance

Milestone Code Milestone Name
(Under Development)

Regulatory

Milestone Code Milestone Name
(Under Development)

Emergency Operations

Milestone Code Milestone Name
(Under Development)

Continuing Authority Program (CAP)

Milestone Code Milestone Name
Receipt of Funds

Initial Appraisal Start
Initial Appraisal Complete
PMP Start
PMP Approval
PDA Start
Draft PDA Complete
Final PDA Complete
FCSA Start
Draft FCSA Submittal
FCSA Execution
Feasibility/DPR Start
EA or FONSI Complete
EIS or SEIS Complete
Water Quality Certification Received
CZM Compliance Received
Draft Feas/DPR Submittal
Final Feas/DPR w/NEPA Submittal
Feas/DPR Approval
Construction Funds Requested
Construction Funds Committed
PCA Start
PCA Package Submittal
PCA Approval
PCA Execution
Plans & Specs Start
Draft Plans & Specs Complete
Plans & Specs Approval

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Detailed Project Scope – Complete details of the scope of the project, as defined in the PMP or as provided by the customer. This field will be updated to reflect the current agreement with the customer on the scope of the project as the PMP is updated or revised.

Status – Brief status of the project for use in reports. (This field is NOT to be used to discuss project issues.)

Issues for Higher Headquarters/Customer – Issues that are included in upward reporting and reports to the customer.

Issues for Internal Use Only - Issues that are for use within a district/center prior to their release to Higher Headquarters or the customer, such as issues to be addressed by the PRB. These issues may be resolved without release to Higher Headquarters or the customer.

Activity-level notebook fields will also be used to capture additional, product-specific scope-of-work information to supplement or support activity development and resourcing.

Contingency Funds Management

Contingency funds are program or project funds that have been set-aside, or reserved, to cover program or project uncertainties. Ideally, the greater the uncertainty of a program or project, the greater the percentage of available funds set aside as program or project contingency funding.

The PDT is responsible for developing project estimates and budgets, including identifying the level of risk and uncertainty with project activities, and including an appropriate amount of contingency funding in the budget commensurate with the level of risk and uncertainty to assure project success. Contingency funds management guidelines address two types of contingency funds: (1) contingencies that develop during the course of project execution when activities are completed at less than budgeted cost, allowing funds to be re-allocated to other activities or projects (refer to *Contingency Funds, Project Level – REF8003[REF8003]*), and (2) directly budgeted, programmatic contingencies, such as those for Construction, General projects specifically authorized by Congress.

The cost estimate for each project, subproject, or separable element of a project must include a separate item for contingencies as an allowance against some adverse or unanticipated condition not susceptible to exact evaluation from available data. Contingencies will be displayed under a separate feature using feature code 59. Separate line-items and descriptions may be used, if desired, under feature 59 to specifically display the contingencies associated with the work shown under features 01 through 31. The contingency allowance should be varied according to the stage of planning and design after considering the sufficiency of the data which form the basis of each quantity estimate. *ER 1110-2-1302, Civil Works Cost Engineering, Appendix D, Procedures for Preparation of Cost Estimates [http://www.usace.army.mil/inet/usace-docs/eng-regs/er1110-2-1302/a-d.pdf]* shows reasonable percentage factors to be used for contingency allowances in estimates of costs for construction and relocation features. For projects that are not programmed to complete in the program year (CFY+2 before 1 October, next, and CFY+1 thereafter), the project cost estimate may include appropriate contingency allowances. However, the program year (CFY+2 before 1 October, next, and CFY+1 thereafter) request must not

include an amount for contingencies, and such allowances must be distributed in the future years in proportion to the work to which the contingencies apply. Contingencies may only be included in the programmed or unprogrammed balance to complete in proportion to the work included therein. For projects that are programmed to complete in the program year, the program year request may include an appropriate, reasonable amount for contingencies. As a project nears completion, the contingency allowance must be reduced accordingly. In no case will contingencies for completed work be included in the programmed or unprogrammed balance to complete subsequent to programmed project completion in the program year through program year+9. Claim settlements and deficiency judgments in the program year through program year+9 will be handled in accordance with normal reprogramming procedures. Program year through program year+9 requests must not include amounts for anticipated claim settlements or anticipated deficiency judgments.

Civil Works Data Checklist

A Data Checklist has been developed to identify all required civil works data elements and provide a crosswalk to the single-source data entry location in P2 or the location where the data is generated within P2. The Data checklist is being designed to assure that all required data elements are accounted for, including data elements in any integrated (i.e. replaced) databases such as PRISM (including the GI Database, CAP Database, etc.) and any other databases with which P2 interfaces such as CEFMS, RMS, etc., so that the data entry source is clearly identified. The checklist also provides additional meta-data information, such as a brief data element definition/naming convention; whether data input is a user choice or selected from a menu; whether single or multiple data entries are allowed (such as for Congressional District), etc. A goal of P2 is to minimize or eliminate numerous data calls. Within cost engineering, data calls are initiated to the cost engineering function from the MSC or HQ level because information is currently not available in our AIS. Information such as the 3 low bidders on a project is one example. This information is not captured anywhere in our current AIS systems because it is of no use to anyone else. It is one example of important data that is used to gauge the performance of our cost engineering function. If we are going to eliminate data calls within the cost engineering function, we must be able to gain access to the necessary information which must be input into P2. Is the data Civil Works Data Checklist the proper avenue to flag the needed data elements to be reported in P2 to insure all our requirements for data reporting will be met? If so, this checklist needs to be developed and coordinated with cost engineering to insure the cost engineering function requirements are satisfactorily addressed. Response: The CW P2 Team will review and evaluate.

The Civil Works Data Checklist, as part of REF8010, deals with links to P2, but is still under development. It may need to somehow have connection to an MCACES or MII Construction Cost Estimate as part of the checklist. Response: Not currently, will be a an item for future evaluation.