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DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833

CELMS-PM

Regulation
No. 5-2-1

29 August 1995

Management
PROJECT MANAGEMENT

1. PURPOSE. This District Regulation (DR) guides the implementation and conduct of Project Management in the St. Louis District. It is intended to be a supplement to, and amplify and clarify, the provisions of reference 3.a. As such, it provides for the implementation and adoption of all provisions of that document.

2. APPLICABILITY. The policies and procedures prescribed in this DR apply to the civil works mission within the St. Louis District within the General Investigations (GI), Construction General (CG), Operations and Maintenance (O&M), Mississippi River & Tributaries (MR&T), and Support for Others programs. The St. Louis District has extended the principles and concepts of Project Management, as envisioned in reference 3.a., to include this District's O&M projects, including Special Recreation User Fees (SRUF), the MR&T Project, the Plant Replacement and Improvement Program (PRIP), the General Regulatory Program, the Flood Control and Coastal Emergencies Program, and the Emergency Preparedness Program. Projects in the Continuing Authority Program are not included except where specifically stated.

3. REFERENCES.

a. Engineering Regulation (ER) 5-7-1(FR), Project Management, 30 September 1992.

b. District Regulation 37-1-2, Operating Budgets, 1 November 1992.

c. District Pamphlet (DP) 11-2-101c, Preparation of Programming and Budgetary Data, 15 July 1985.

*This regulation supersedes DR 5-2-1, 2 Nov 1992

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d. LMV Guidelines for Project Management Plans, LMVD-ED-PG, 13 August 1990.

e. Engineering Regulation 1165-2-131, Local Cooperation Agreements for New Start Construction Projects, 15 April 1989.

4. PROJECT MANAGEMENT BACKGROUND.

a. With the enactment of the Water Resources Development Act of 1986 (PL 99-662), and the resultant increase in the financial and coordination roles of the project sponsor, herein after referred to as the customer, the St. Louis District faces one of the greatest institutional challenges in its history of planning, designing, constructing, and operating water resource projects.

b. An integral part of this challenge involves enhancing the District's management system by providing greater authority and responsibility to the project management function. This will improve project continuity; increase accountability for cost, schedules (manpower and milestones) and quality; and more effectively reconcile the District's performance with the concerns and expectations of the customer. The intense involvement of the Project Manager (PM) will allow the functional chiefs to concentrate more on their individual product responsibilities. The PM will monitor the overall project from a quality assurance perspective so both the customer and the Corps obtain a well-functioning project completed on schedule and within budget. Project managers must be proactive and able to perceive trends and problems before adverse events occur that are unalterable.

c. The objectives of the project management concept are to focus the District's leadership on the efficient production of successfully operating projects that meet the customer's expectations and to insure that:

(1) The designs emerging from each stage of the project cycle are efficient, economical, and consistent with national environmental and cultural objectives.

(2) Best design and construction practices have been considered in all phases of the work including reconnaissance, feasibility, DM or GDM, FDM, and plans and specifications.

(3) Cost estimates are accurate and account for all factors involved in a project including operation and maintenance.

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(4) Proper fiscal management is maintained throughout planning, design, construction fiscal closeout and operation and maintenance.

(5) Proposed modifications incorporate good design practices, have fully considered environmental and cultural issues and are economically feasible.

(6) All District elements are sensitive to, and fully consider, the concerns and requirements of other organizations throughout the planning, design, construction and operation and maintenance processes.

(7) Projects are developed in a manner that will facilitate the receipt of bids.

(8) Projects are designed in such a manner to facilitate effective and efficient operation and maintenance.

(9) The customer is fully informed and is encouraged to participate in project development.

(10) Cost sharing agreements are prepared in a timely manner and the customer understands, and concurs with, all provisions of the document.

(11) All real estate requirements have been met.

(12) All necessary permits have been obtained.

(13) All aspects of the project are consistent with the applicable laws, rules, regulations, and policies.

(14) The Contractor Quality Control Program is effective and suitable for the project.

(15) Criteria for project development are consistent throughout the District.

(16) A system is available to build upon past decisions through continuity of management.

(17) The Value Engineering (VE) process is utilized for all aspects of the project.

5. ORGANIZATIONAL FEATURES.

a. Structure. The organization structure for Project Management in the St. Louis District provides for:

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(1) The Deputy District Engineer for Programs and Project Management (CELMS-DP) reporting to the District Commander and serving in a dual capacity as Chief, Programs and Project Management Division (CELMS-PM).

(2) A Programs and Project Management Division consisting of two branches, a Programs Management Branch (CELMS-PM-P) and a Project Management Branch (CELMS-PM-M).

(3) Project Managers (PM's) responsible for managing the project parameters (i.e., cost, budget, schedule, scope and quality) as well as dealings and relationships with those involved in the project process including customers, functional elements, and government and non-government entities for one or more assigned projects. The projects and project managers are assigned to one of the following teams or programs:

- (a) Lakes and Rivers.
- (b) Local Flood Protection.
- (c) Environmental and Support for Others.
- (d) Ordnance and Explosive Waste Program.

(4) Technical Managers (TM's), working under the supervision of the functional chiefs, as an integral part of the project management team with responsibility for the content and quality of technical products.

(5) The Project Review Board (PRB) chaired by the Deputy District Engineer for Programs and Project Management.

b. Roles and Responsibilities.

(1) General. The District Commander, through the Deputy District Engineer for Programs and Project Management, has primary responsibility for assuring the successful accomplishment of programs and project management objectives in the District. The functional chiefs are responsible for developing their respective division's schedules, budgets and manpower requirements during the development of overall project schedules and milestones. They are responsible for producing quality deliverables within the cost, time and manpower agreed to with the PM. This is a cooperative effort between the PM and the functional chiefs. The functional chiefs will anticipate necessary changes and advise the PM as soon as changes are recognized. They will be responsible for submitting the

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documents necessary to process and effect proposed changes in budgets and schedules. Functional chiefs remain responsible for their traditional products whether accomplished in-house or by A-E services. The functional chiefs will assure that their respective staffs provide the PM with technical assistance. A summary of the Programs and Project Management Division's and the Technical Divisions' responsibilities is presented in Appendix B to provide a quick reference source for delineation of duties/responsibilities. The following paragraphs provide a more comprehensive explanation of each organization's roles and responsibilities.

(2) Programs and Project Management Division. The Programs and Project Management Division roles and responsibilities include:

(a) Providing staff leadership in establishing District management processes and procedures to effectively manage project scope, quality, cost, budgets and schedules, and to further define related interfaces, roles and responsibilities.

(b) Assignment of Project Managers to all Construction General Projects and appropriate nonrecurring Operations and Maintenance projects.

(c) Developing and maintaining Project Management Plans (PMP's).

(d) Conducting PRB meetings.

(e) Fully funding baseline cost estimates.

(f) Receiving, disseminating, and implementing program and project direction, guidance, and correspondence from higher authorities.

(g) Preparing all budgetary data, in accordance with reference 3.b., in support of the District's Civil Works budget submission and preparing the District Commander and his staff for the budget hearings.

(h) Provide staff leadership in monitoring all District funds for the current fiscal year and the budget years workload.

(i) Providing the District Commander recommendations on: project submissions pertaining to scope, cost and schedule information; reprogramming; and other reports to higher authority, the Congress and the customer.

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(j) Selecting, supervising, assigning projects to, providing guidance to, and rating the performance of the PM's or delegating these responsibilities to the Chief, Project Management Branch.

(k) Establishing, in coordination and concurrence with the other District elements, teams for each project. Each team will be led by the PM and include TM's, representatives from relevant functional offices, Contracting Division, and others, as appropriate.

(l) Chairing the line item review (Tentative Schedule) meeting with designated District staff before the monthly PRB meeting.

(m) Ensuring the preparation of all programs and project management reports.

(n) Act on Schedule and Cost Change Requests (SACCR) within the authorities of the District as defined in reference 3.a.

(o) Preparing the Executive Summary of PRB meetings and transmitting required reports and the Executive Summary to the Lower Mississippi Valley Division (LMVD).

(p) Coordinating with other District elements to develop alternative resource and schedule recommendations for consideration by the PRB or District Commander.

(q) Foreseeing potential project-related issues and problems and taking appropriate corrective actions.

(r) Scheduling separate meetings with District Commander to discuss project issues not resolved by the PRB.

(s) Preparing Project Cooperation Agreements (PCA's), coordinating PCA's with higher USACE offices, negotiating PCA's with customers and preparing support documentation, with assistance being provided by the functional elements as required/requested.

(t) Participating in the Operating Budget process, with the District Commander, Budget and Manpower Branch, and Program Budget Advisory Committee (PBAC), to ensure a successful financial management process and to fulfill the commitment to complete projects and programs on schedule and within budget.

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(u) Preparing and coordinating Force Configuration (FORCON) manpower requirements for submittal to higher headquarters.

(3) Planning Division. The Planning Division roles and responsibilities include:

(a) Leading the day-to-day efforts of the interdisciplinary planning team during the reconnaissance and feasibility phases.

(b) Developing and implementing the public involvement program during the reconnaissance and feasibility phases in consultation with the PM.

(c) Preparing study cost estimates.

(d) Preparing the environmental analysis and reviewing it during design and construction.

(e) Preparing, reviewing, and processing the Environmental Impact Statement (EIS).

(f) Preparing the economic analysis.

(g) Formulating Project Plans.

(h) Preparing the cost sharing determination during the feasibility phase.

(i) Assisting the customer in preparing the Financing Plan.

(j) Preparing, reviewing and processing the Reconnaissance Report and the Feasibility Report including preparation of the Project Study Plan (PSP) and the drafting of the Feasibility Cost Sharing Agreement (FCSA).

(k) Insuring the technical adequacy of all planning products.

(l) Providing input to the PMP.

(m) Developing and managing Continuing Authority projects through the Definite Project Report.

(n) Managing the overall Continuing Authority Program.

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(o) For projects authorized by the Water Resources Development Act of 1990 (WRDA90) or earlier, preparing General Reevaluation Reports (GRR) with engineering appendices, and Limited Reevaluation Reports (LRR).

(p) For projects authorized after WRDA90, reaffirming the recommended plan or preparing reevaluation reports during Preconstruction Engineering and Design (PED).

(q) Resolving planning issues raised during the study review process.

(r) Providing input to and reviewing documents for the District's Civil Works budget submissions.

(s) Implementation of public meetings through the Reconnaissance and Feasibility Phases.

(4) Engineering Division. The Engineering Division roles and responsibilities include:

(a) Managing and executing in-house and contract design.

(b) Preparing, coordinating and collecting engineering input for technical products including General and Feature Design Memoranda, plans and specifications, cost estimates, and engineering studies and investigations for the life cycle of projects.

(c) Preparing the baseline cost estimate for all construction features and for incorporation of the real estate and engineering and design costs provided by the PM and the costs of construction management provided by the Construction-Operations Readiness Division.

(d) Insuring the technical adequacy of all engineering products.

(e) Participating in scoping studies and projects and preparing technical work plan, including time and cost estimates for successful completion. Negotiating with the PM and others on technical details, time and funds required.

(f) Coordinating and processing design documents and products during their review and preparation.

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(g) Chairing technical review conferences and resolving functional technical issues raised by the PRB or during Washington Level Review.

(h) Participating in the development of a project strategy and providing input to the PSP and the PMP.

(i) Managing design in accordance with the PSP and PMP.

(j) Informing and coordinating with the PM on changes as soon as they are known or forecast, including, but not limited to changes in the basis of design, project cost, design budget, and schedule.

(k) Providing continuous technical assistance when required throughout the project life.

(l) Accomplishing business processes such as market analysis, process selection, price and cost analysis for architect-engineer (A-E) contracts.

(5) Construction-Operations Readiness Division. The Construction-Operations Readiness Division roles and responsibilities include:

(a) Conducting Biddability, Constructability, Operability (BCO) Reviews to include maintainability.

(b) Performing construction contract management and office engineering.

(c) Performing Supervision and Administration (S&A) management and rate allocation.

(d) Insuring contract cost control.

(e) Insuring contract schedule control.

(f) Preparing the baseline cost estimate for Supervision and Administration costs.

(g) Assuring construction quality.

(h) Developing funding requirements for the construction program and furnishing this data to the PM for program execution.

(i) Conducting claims management.

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(j) Conducting construction contract modifications management.

(k) Operating, inspecting and maintaining existing facilities and lands.

(l) Providing continuous technical assistance during project life.

(m) Serving as land manager for all District-managed lands.

(n) Serving as facility manager for all completed facilities.

(o) Serving as a customer for other District elements.

(p) Managing dredging operations.

(q) Managing emergency operations of the District in the Readiness Branch.

(6) Contracting Division. The Contracting Division roles and responsibilities include:

(a) Participating in the development of the PMP.

(b) Developing the Solicitation Schedule and Provisions.

(c) Participating in the preparation and review of acquisitions plans.

(d) Soliciting and awarding contract actions.

(e) Monitoring, facilitating, or accomplishing business processes such as market analysis, process selection, price and cost analysis.

(f) Advising on technical contract issues, such as clauses, waivers, deviations, approvals, and Business Clearance Memoranda (BCM).

(7) Real Estate Division. The Real Estate Division roles and responsibilities include:

(a) Preparing all cost estimates for real estate.

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(b) Preparing and coordinating the Land Acquisition Schedule.

(c) Assuring the inclusion of the cost estimates for real estate and the Land Acquisition Schedule in the PMP.

(d) Participating in the Feasibility Review Conferences (FRCs), Reconnaissance Review Conferences (RRCs), and other meetings.

(e) Monitoring land acquisition activities including, but not limited to title evidence, closings, condemnation, and PL 91-646 payments.

(f) Conducting appraisal review.

(g) Certifying the procurement of Lands, Easements, Rights-of-Way, Relocations, and Disposal (LERRD).

(h) Processing and approving LERRD credit requests.

(i) Assessing the customer's capabilities to acquire LERRD in accordance with schedules, costs, and applicable laws/regulations.

(j) Administration and negotiation of all outgrants (leases, easements, licenses, permits) of public land and water areas.

(k) Execution of real property disposals.

(l) Conducting project utilization surveys.

(8) Resource Management Office. The Resource Management Office roles and responsibilities include:

(a) Supports PM in Financial/Budget/Resource matters. Helps develop non-federal financing plan.

(b) Supports PM by performing research on financial viability of sponsor.

(c) Assures overhead and application of predetermined rates are appropriate. Receives funding for projects. Assures apportionment schedule adequate for project schedule.

(d) Provides timely data to support analysis of project status.

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(e) Reconciles obligation and expenditure plans with financial records for fiscal closeout.

(f) Formulates district operating budget and corresponding rates and presents to PBAC; develops and recommends manpower allocations to PBAC.

(g) Provides staff management and analysis of district operating budget rates, manpower allocations and budget execution review.

(h) Monitors execution versus budget allocations and recommends appropriate adjustments to PBAC during periodic executions reviews.

(i) Provides services of a project accountant who serves as PM's resident financial expert. Reviews financial records for adherence and compliance with PCA.

(j) Sets up resource accounts consistent with IPMP/PMP. Determines/insures capital expense changes are appropriate.

(k) Supports PM with historic financial data to form basis of construction and Support For Others budgeting.

(l) Provide a mechanism to ensure control of direct charges to the project. Reviews direct charges for propriety.

c. Program (Budgetary) Responsibility. The Programs and Project Management Division has overall responsibility for project schedule and cost and provides overall leadership in project implementation. However, within the Project Management framework, each appropriation/program shall be managed as follows:

(1) General Investigations (G.I.). The Planning Division, through the Planning Technical Managers, has the primary responsibility for reconnaissance studies, feasibility studies, and reevaluation studies. The Planning Technical Manager prepares the budgetary data for these studies, including the proposed distribution of funds to the various District elements for the current and budget fiscal years. The proposed distribution of funds will be reviewed and approved by the Programs and Project Management Division. The Planning Technical Manager is responsible for preparation and periodic updating of the schedule of obligations and expenditures (LMV Form 26), based on input from the functional elements. The Programs and Project

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Management Division works with the Planning Division during the study phases and helps prepare documents such as the Initial Project Management Plan (IPMP) and also monitors study progress and the study budget. The Project Manager assumes day-to-day management responsibilities when the Preconstruction Engineering and Design (PED) is initiated.

(2) Construction General (C.G.). The Programs and Project Management Division, through the Project Managers (PM's), is responsible for preparation of the budgetary data including the distribution of funds to the various District elements for the current and budget fiscal years. The PM is responsible for preparation and periodic updating of the schedule of obligations and expenditures (LMV Form 26), based on input from the functional elements, and for monitoring actual obligations and expenditures. The Planning Division will exercise budgetary control for Continuing Authority Projects until the completion of the detailed project phase and will retain Program Management of Projects after initiation of plans and specifications.

(3) Operations and Maintenance (O&M) and Mississippi River and Tributaries (MR&T). The Construction Operations Readiness Division, through the Project Managers, is responsible for managing the O&M program. The Programs Management Branch is responsible for final review, analysis and preparation of the O&M/MR&T budget year (BY) and current year (CY) programs, as submitted by the CO-OPs Project Managers. However, each functional element is responsible for developing it's respective portion of the BY and CY programs. The Programs Management Branch, in coordination with the O&M Team, will establish priorities and allocate funds in a manner to assure sufficient funds for operating in a safe and efficient manner while assuring that short and long term maintenance items are budgeted and accomplished in an expeditious manner. The Programs Management Branch is responsible for the review and analysis of the LMV Form 26 and preparation of the 2101 schedule of obligations and expenditures and CMR charts.

(4) Plant Replacement and Improvement Program (PRIP). The Construction-Operations Readiness Division, through the Chief, Plant Branch, is the PRIP project manager. He/she reports to the Chief, Programs and Project Management Division on matters pertaining to schedules, and obligation and expenditure of funds. Authority to reprogram items under \$50,000 is delegated to the Deputy District Engineer for Programs and Project Management.

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(5) Flood Control and Coastal Emergencies (FC&CE) and National Emergency Preparedness. The Construction-Operations Readiness Division, through the Chief, Emergency Management Branch, is the project manager for these programs. He/she reports to the Chief, Programs and Project Management Division on matters pertaining to schedules, and obligation and expenditure of funds. Should a major flood rehabilitation project or other natural disaster occur, then large specific projects will be managed by the Programs and Project Management Division who will report on the status and funding requirements for each project.

(6) Support for Others. The Project Management Branch of the Programs and Project Management Division is assigned management responsibility for work that falls within the Support for Others Program. The Programs Management Branch will maintain the FORCON Database to include all Support for Others workload as well as work performed for other Corps of Engineers organizational elements. Such other Corps work will normally be managed by the functional area where the work is being performed. The functional area is responsible for assuring that such work is reported to the Programs Management Branch for inclusion in the FORCON database. All District elements are responsible for keeping the Programs Management Branch advised of potential work from outside the District and for furnishing detailed information when it becomes available.

6. PROJECT MANAGEMENT PLAN (PMP).

a. PMP Development. A PMP will be developed for each General Investigations and Construction General project, each Defense Environmental Restoration Project (DERP), and each EPA Superfund project. The PMP will establish scope, schedule, budgets, interface with the customer and technical performance requirements for the management and control of the project. The PMP will provide performance measurement criteria including major milestones. The project schedule will be developed depicting interrelationships of tasks and activities, milestones, durations and costs. The assumptions associated with the baseline cost estimate will be included in the PMP. In addition, the PMP will document the USACE and customer commitments required for project development. The PMP provides a common understanding between the customer and USACE district, division, and headquarters offices; reduces uncertainties; and provides a basis for managing and monitoring the project. The content and level of detail of the PMP evolve over the life of the project.

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b. PMP Requirements.

(1) The PMP is a District-level working document for the use and continual updating by the PM. The PMP will be developed by the PM in conjunction with District functional elements and the customer and is to be presented to the customer for endorsement and to the District PRB for approval. Agreement among the PM and the functional elements on technical detail, funds and time required is essential prior to completion of the IPMP or PMP. The PMP for Civil Works projects will be submitted to higher authority for review and comment prior to approval by the District PRB.

(2) The project scope must be defined in sufficient detail to allow the customer and District elements to establish parameters for the planning and execution of required tasks. The definition of project elements and design and quality parameters will be developed by the PM and the District functional elements, in coordination with the customer.

(3) The schedule for the total project, including customer participation, USACE efforts, other government agencies, and architect/engineer and construction contracts, must be developed for each project and continually refined and adjusted throughout the life of the project. The schedule is to be prepared to the level of detail commensurate with the stage of development of the project and in sufficient detail to provide for the day to day management of the project. The breakdown of the tasks will be consistent with the code of accounts and/or project work breakdown structure (WBS) and will include appropriate document submittal, approval, and execution milestones, as applicable. For each project, it is expected that a series of detailed task logic networks will be prepared as required for management and analysis of each individual phase and feature and that these will have the capability of being aggregated into an overall schedule which depicts major milestones. Such major milestones shall, as a minimum, include applicable milestones from reference 3.a. The network formats, to the extent practicable, should be consistent among projects.

(4) The project cost estimates, both baseline and current, will be structured using the work breakdown structure as keyed to the USACE code of accounts. The work breakdown structure is a product-oriented hierarchy which breaks the project down into several levels of detail. Estimates will include line item contingencies based on the degree of uncertainty associated with the project feature and will be managed in accordance with the procedures of reference 3.a.

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(a) The baseline cost estimate is the total project cost estimate developed during the feasibility stage of the project and fixed in the PMP to serve as the basis of measurement of District management efficiency and project performance. It reflects the estimated costs of the project features, including real estate, relocations, construction costs, planning, engineering and design, and construction management. This cost estimate can be exceeded by no more than twenty percent during the life of the project, excluding inflation and changes required by law.

(b) The current project cost estimate will be reviewed, maintained, updated, and approved in accordance with USACE regulations for cost estimates and procedures set forth in reference 3.a.

(5) Thresholds and approval levels for formal acquisition plans for construction projects/programs are established in Engineer Federal Acquisition Regulations Supplements (EFARS). These acquisition plans are a part of the PMP and guidance for their preparation is provided in reference 3.a. and through USACE contracting elements. Regardless of project size, acquisition planning must be accomplished for all projects, and the PMP is the record of that planning.

(6) Real estate costs and schedules, if applicable, will be an integral part of the PMP. The PM will ensure that the land acquisition schedules, developed in concert with the customer and District elements, are included in the network for the total project. The baseline cost estimate will include real estate costs at a level of accuracy and detail commensurate with the detail for other project features, with appropriate contingencies.

(7) The PM is to ensure that a project progresses in accordance with the PMP. The PM must continually manage the project schedule; compare that schedule with established milestones and budgets; identify and manage resolution of schedule problems to prevent adverse project impacts; and forecast impacts of changes as required. The PM will maintain a record of all approved schedule changes. An integral part of the PMP is the method to be used by the PM in assessing the physical progress of the project. The PM must clearly define how physical progress will be measured. This measurement of physical progress will be employed to indicate scheduled and actual project progress on the Project Executive Summary and on the monthly Project Manager's Report, as described in reference 3.a.

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(8) The PM will update the PMP to show changes that occur as the project develops. The PMP will be a living document that records the history of the project and plans for the future. Major changes to the PMP require endorsement by the customer, or project sponsor, and approval by the PRB.

7. MANAGEMENT CONTROL.

a. Cost Control.

(1) Project Cost Estimates. The baseline and current cost estimates contained in the PMP are components against which project success and District performance are measured. The current estimate will be maintained and adjusted throughout the life of the project and at milestones specified for each program. The cost estimate is composed of all costs to complete the work regardless of funding source or funds type including contingencies associated with each feature. The cost estimate will use the code of accounts format.

(2) Contingencies. Each project is assigned a contingency as an allowance for uncertainty in project development. The prudent and judicial management of contingencies to accommodate uncertainty in the project is the shared responsibility of district and division management. Mechanisms for utilization of contingencies are presented in reference 3.a.

(3) Changes to Current Project Cost Estimate. Although the project management system is designed to minimize the instances when costs estimates must be increased, the current project cost estimate may require adjustments within the limits prescribed in reference 3.a. Increases in the total current cost of the project must be documented and accounted for in a formal manner. The source of cost growth, price inflation, time growth, changes to project scope, and errors or omissions must be reported in a timely fashion. Each project is subject to specific regulatory and statutory limits on cost growth. Project management and cost engineering requirements include the periodic and timely review, update and maintenance of the current project estimate and the processing of cost change requests.

b. Schedule Control.

(1) Network Development. All projects will be scheduled utilizing the Automated Project Management System (APMS), based upon the Open Plan software program, however, functional elements may use a compatible software program. The scheduling system defines individual activities of participating elements and

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allows for the analysis, adjustment, and summary of cost, time, and manpower. It can be readily revised, displayed and updated. The degree of development of the network must be commensurate with the stage of project development. The activities will be consistent with the project work breakdown structure and code of accounts and will provide all milestones for submittal, approval and execution. Most projects will require networks for individual features or subfeatures that may be aggregated into an overall project network.

(2) **Major Milestones.** The network for each project will, as a minimum, contain major milestones described in reference 3.a. These should be supplemented by additional milestones which may represent initiation or completion of a critical activity and/or juncture in the development of the project which are of particular interest to the customer or higher authority.

(3) **Changes to Project Schedule.** The project schedule may be adjusted at the District level if the adjustments do not affect any major milestones. Formal requests to make changes to the schedule which affect major milestones must be coordinated with the customer and submitted for approval to higher authority. Reference 3.a. provides details on changes and approvals.

c. **Resource Control.** The PM will manage, analyze, allocate and control all project and study costs and budgets in accordance with the approved PMP. "Guidelines for PM Control of Direct Charges" are included as Appendix 1-E of reference 3.a. Guidance for proper labor charges is included as appendix C to this regulation.

d. **Contract Modifications.** When a design or construction contract modification is of sufficient scope, the need for a Schedule and Cost Change Request (SACCR) must be assessed. The PM prepares the SACCR on his/her initiative or at the request of a technical element. The SACCR is prepared in accordance with the guidance in reference 3.a. Before the modification is issued, it is subject to: the availability of funds, coordination and assessment of impacts on cost and schedule, and obtaining the required approvals. Nothing in this regulation is intended to supersede or interfere with the Administrative Contracting Officer's (ACO) or Contracting Officer's authorities and responsibilities established in the Federal Acquisition Regulations and supplements. If the modification is within the ACO's authority as defined in the Engineer Federal Acquisition Regulations Supplement, the modification will follow normal District procedures. For modifications which are outside of the scope of the contract or exceed the ACO's authority, the Contracting Division has the responsibility of ensuring that all

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required reviews have been obtained prior to final action by the Contracting Officer.

e. Quality Management. High standards of quality are essential in all aspects of the product development, from planning, design, land acquisition, construction, operations, to the establishment and conduct of relationships between all project participants. A quality product, delivered on time and within budget, is the result of understanding and support at all levels of management and staff. Among the most important duties of the PM are the determination of customer expectations concerning quality, the recording of those expectations and any subsequent understandings that evolve, and the tracking over the life of the project of any changes to quality. The PMP becomes the documentation and record of quality and agreements on changes to quality for architectural themes and treatments, facility and site integration and functional objectives of the project. Changes to quality may be made only with recognition and concurrence of the customer.

8. PM/TM ROLES AND RESPONSIBILITIES.

a. Project Manager (PM). The Project Manager is designated by DP, or by the Chief, Project Management Branch via delegated authority, for the assigned undertaking. The PM has the leadership responsibility for development and management of the PMP on assigned projects with the full support of a team of designated members from participating District elements. Projects will be assigned to a PM by the DP to ensure early involvement in the project. The PM is responsible for the delivery of the project on time and within budget and scope. The PM manages the delivery of the project in accordance with the PMP through construction into initial project operations or transfer to the customer and settlement of outstanding claims including fiscal closeout. Although the technical elements, through the TM, are responsible for the content and quality of technical products, the PM has the responsibility and the authority to challenge technical issues, when necessary. It is anticipated that differences will be resolved by the PM and TM or at the functional division level. Persistent differences will be arbitrated by the Deputy District Engineer for Programs and Project Management. The duties of the PM will be fully defined by the DP or by the PM-M branch chief. These include the following duties supplemental to the duties outlined by reference 3.a.:

- (1) Serve as the recognized leader of the project team.

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(2) Integrate all data required to prepare the PMP from designated TM's, including real estate, and from the customer or other required sources. Obtain reviews and endorsements of the PMP from contributing District elements and the customer. Present the PMP to the District PRB for approval. Ensure the continuing updating of the PMP.

(3) Allocate budgets of project funds to each District element in accordance with the work breakdown structure and standard code of accounts, consistent with the District operating budget, and based on data contained in the PMP.

(4) Monitor actual obligations and expenditures to ensure compliance with the PMP, proper distribution of obligations and expenditures among the standard code of accounts, and effective utilization of all project funds, Federal and non-Federal.

(5) Work with designated team members to ensure early identification of project related issues which may impact scope, quality, cost, budget, and schedule. Facilitate resolution of these issues or elevate them to the appropriate decision making level. The PM is responsible for resolving these problems in the most appropriate manner.

(6) Manage project schedule and cost, making and/or recommending necessary adjustments based on changes and performance. Ensure development, in conjunction with the cost engineer and designated TM's, of all required cost estimates. Develop forecast schedule and estimate.

(7) Prepare Project Schedule and Cost Change Requests or receive such requests from other District elements or from the customer. The PM will evaluate and take action on requests received. If the request exceeds the PM's authority or requires specific technical expertise, the PM will recommend action to the appropriate approval authority. The PM will maintain a complete project history of schedule and cost changes and will modify the PMP in accordance with approved schedule and cost changes. (Consult reference 3.a. regarding ACO authorities.)

(8) Prepare required project management reports.

(9) Establish project performance measurements to assess physical progress of the project. Provide clear definitions to the technical elements showing how progress will be measured for the various products. Use these measures as indicators of

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scheduled progress and for preparation of project management reports.

(10) Review and endorse all project documents for consistency with the PMP prior to submission to the customer, higher authority or outside agencies.

(11) Manage project contingencies to ensure efficient and effective utilization in accordance with reference 3.a.

(12) Prepare annual budget submissions to the Congress and reprogramming documents for assigned projects prior to submittal through the Programs Management Branch to DP.

(13) Serve as the primary point of contact with customers on project issues. Participate in the development and negotiation of the Project Cooperation Agreement (PCA) with the customer. Ensure customer understanding of funding and finance requirements for project execution, regularly update customers on progress, review and monitor the customer's compliance with commitments, participate in resolution of technical issues with the customer, and coordinate Project Schedule and Cost Change Requests.

(14) Control costs and schedules through established approval authorities during all phases of the project, including review of technical documents. Make periodic site visits, as appropriate, to assure compliance with the PMP.

(15) Assure that environmental commitments are incorporated into the project and honored through succeeding phases.

(16) Serve as an ad-hoc member of Preselection and Selection Boards for architect/engineer contracts for assigned projects.

(17) Advises, upon request, the Small and Disadvantaged Business Committee (SADBUS) on the selection of contracts proposed for small business designation.

(18) Determines the impacts of modifications on project quality, scope, cost and schedule. Work with the Chief of Construction Operations Readiness Division and the ACO to coordinate modifications, claims, and value engineering proposals with the customer, and expedite evaluation and processing of modifications and claims in the District Office. Determine the availability of funds for proposed modifications.

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(19) Participate in pre-final and final construction inspections.

(20) Coordinate with the appropriate functional elements to ensure timely preparation of operation and maintenance manuals, as-built drawings, resolution of outstanding claims, including real estate claims, completion of the final real estate audit, and transfer of projects to the customer or others for operation.

(21) Monitor initial operations to ensure warranty provisions are enforced and any deficiencies remaining within the purview of USACE are corrected through established USACE procedures.

(22) Monitor project fiscal closeout, resolution of financial status and proper disposition of remaining funds. Procedures for proper maintenance of the Construction Work-In-Progress (CIP) account is spelled out in detail as Appendix B of this regulation.

(23) Provide input for formulation of the District Operating Budget related to the projects for which the PM is responsible. Provide early indications of effects on projects due to changes in available funding or overhead rates. Make recommendations to solve or mitigate problems developing from Operating Budget changes.

(24) Provide control of direct charges to the project as discussed in paragraph 7.c. above.

(25) Prepare and maintain the Tentative Schedule for assigned projects.

(26) Coordinate the need for public meetings with the functional district elements after the feasibility stage of a project.

b. Technical Manager (TM). The functional chiefs are responsible for assignment of technical managers to the project management team. Through the TM's, the functional chiefs are responsible for the content and quality of technical products. The TM, working under the supervision of the functional chief, is responsible for development of these products. While the TM serves on the project management team, his/her first priority is the project rather than other technical assignments. The Planning Division Technical Manager (Study Manager) is responsible for preparation of Reconnaissance Reports,

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Feasibility Reports and Reevaluation Reports. The Technical Division Chief will be held accountable to the District Commander, through the DP, for project delivery commitments. The coordination and cooperation between the PM and TM's must be continuous throughout the management process. The TM's duties include:

- (1) Develop and process the technical products, including product quality.
- (2) Serve as the technical function's primary interface with the PM.
- (3) Coordinate all technical disciplines in the development of technical products.
- (4) Serves as the principal contact for the technical function's supporting contractors.
- (5) Provide technical expertise in the development of the PMP and in other project-related strategies.
- (6) Communicate with customers' technical representatives, always in concert with the PM.
- (7) Evaluate the technical adequacy of any technical work the customer proposes for possible credit. The functional chief and project manager will determine the suitability for credit to the customer.
- (8) Represent the technical function at the PRB when issues are raised.
- (9) Serve as an ad-hoc member on Preselection and Selection Boards for architect/engineer contracts for assigned projects.
- (10) Advise the Small and Disadvantaged Business Committee (SADBUS) on the technical content of contracts proposed for small business designation.

9. PROJECT REVIEW BOARD (PRB).

a. General. To facilitate senior management oversight and coordination, PRB meetings will be held monthly. The PRB shall consist of the DP, Chiefs of the Project Management and Programs Management Branches, PM's, and the Chiefs of the Planning, Real Estate, Engineering, Construction-Operations Readiness, and Contracting Divisions, Office of Counsel, Resource Management

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Office, and the Regulatory Office. TM's and other offices will participate as required. Meetings will be open to customers. Meeting schedules will be established consistent with the requirements to complete the PRB Executive Summary to meet established deadlines.

b. Procedures. The PRB will be chaired by the Deputy District Engineer for Programs and Project Management, or his designee. The PRB will:

- (1) Review and approve the PMP's.
- (2) Review and evaluate project execution and management for compliance with PMP's and annotate project management reports. The PRB will identify actions required to resolve major project issues, concerns or problems.
- (3) Take action on Project Schedule and Cost Change Requests in accordance with the approval authority limitations as defined in reference 3.a. and monitor utilization of contingencies.
- (4) Evaluate the District's performance on projects and provide status to the District Commander and feedback to PM's and designated team members on project management performance.
- (5) Identify quality, scope, cost, budget, and schedule trends in projects and recommend additional manpower, organization change, or other actions to minimize adverse impacts.

10. MANAGEMENT REPORTS.

a. General. The project management reports serve to focus attention of the USACE management on project delivery and the activities necessary to complete the project within specified scope, cost and time constraints. Along with the project network, the reports represent a summation of the data necessary to: assess the status of project activities, identify trends and issues, forecast changes to project schedule and cost, and monitor the accomplishment of project objectives. The reports will be used in conjunction with the networks for managing and monitoring projects. The reports are divided into two separate types, Project Manager's Working Reports and Project Summaries. More detailed guidance is contained in reference 3.a.

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b. Report Description. The Project Management reports are the PM's assessment of project progress and issues. The PM is responsible for the timely preparation, submission, accuracy, and validity of data contained in the project management reports.

(1) Project Manager's Working Reports. These reports include the Project Manager's Report, the Project Schedule and Cost Change Request, Project Manpower Report, and Project Contingency Management Report. Specific formats are in reference 3.a.

(2) The Project Manager's Report will be prepared by the PM. This report provides details of the work breakdown structure, scheduled and actual resource allocations in terms of time and manpower and dollars. It serves as the framework of project management. It incorporates actual data into the current project activities. This report has four components: Project Costs, Project Schedule and Milestone Status, In-House Allocations, and Cost Status.

(3) The Project Schedule and Cost Change Request will be initiated by the District element which first recognizes the need for change. Changes will in some cases be originated by the customer. The initiator provides the request to the PM for approval of impact assessment, evaluation of project impacts, coordination with the customer, and action by the appropriate District element.

(4) A Project Manpower Report will be prepared by the Budget and Manpower Branch in conjunction with the PM. This report provides a comparison of estimated manpower requirements based on the work breakdown structure and actual labor charges by individual District elements and a correlation to the financial account feature/subfeature.

(5) The Project Contingency Management Report is required for specific USACE programs. This report is used to monitor Schedule and Cost Change Requests and the status of contingency use. It permits the PM to maintain a running status of project contingency use and available contingencies.

(6) Project Summaries. The Project Summaries include the Project Executive Summary and the Performance Evaluation Transmittal Summary. Project Summaries are to be discussed with and made available to the customer on a regular basis.

(7) The Project Executive Summary provides an overview of project status to senior management at district, division and HQUSACE. It serves to structure and focus the review process and

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to provide indicators of trends, issues, and progress in a clear, concise format. This report is prepared by the PM, reviewed by the District PRB, and transmitted to the division. It may not be modified. It may be annotated only by a PRB approved comment to the report.

(8) The Performance Evaluation Transmittal Summary is prepared by the District based on data contained in the project management reports and discussions at the PRB meetings. This summary provides a listing of the project reports being transmitted and an evaluation of the performance of the project management system.

c. Report Submission and Review. The DP will submit Project Executive Summaries to the Division for review. The District will submit, at a minimum, reports identified in reference 3.a., and projects designated by the division or HQUSACE. A Performance Evaluation Transmittal Summary will accompany each submission of Project Summaries.

11. COST SHARING AGREEMENTS. The Chief, Project Management Branch shall have the overall responsibility for the management, final preparation and transmittal to higher headquarters of all cost sharing agreements and associated transmittal packages. Cost sharing agreements include project cooperation agreements (PCA), PCA supplements, PCA modifications, Section 215 agreements, and feasibility cost sharing agreements (FCSA). TM's shall provide input as appropriate throughout the cost sharing agreement development process. The Chief, Project Management Branch, or a designated Cost Sharing Agreement Manager, shall be the primary point of contact with the customer for negotiating the agreements and for resolving issues. He/she also shall have the overall responsibility for making the necessary arrangements to assist the local sponsor in preparing the financial plan, determining cash flow requirements, establishing escrow accounts, keeping the PM appraised on the progress and content of the agreement package, determining appropriate cost sharing arrangements and credit allowances, conducting the ability to pay analyses and coordinating with the customer on routine matters related to the development of the cost sharing agreement package. Whenever possible, the PM will attend and participate in the negotiations with the customer. The TM's shall assist in the preparation of individual technical items within each agreement package as appropriate. The Planning Division TM shall be responsible for preparing the FCSA in coordination with the Cost Sharing Agreement Manager and the PM.

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12. ANNUAL OPERATING BUDGET.

a. The PM shall develop, in coordination with the technical functions, CELMS-PM-M and CELMS-PM-P, the annual operating budget for the projects for which he/she is responsible. The budget shall be in accordance with reference 3.a.

b. Reference 3.a. presumes the use of a Program Budget Advisory Committee (PBAC) to review/approve the operating budget. While the recommended membership of the PBAC is somewhat identical to the PRB, it is a separately constituted group that deals with the entire operations of the District. The PBAC does not usurp the prerogatives of the PRB, but rather uses the project decisions of the PRB as final guidance on District workload.

13. FILES. Each division or office in the District shall maintain the official file of the work for which it is primarily responsible.

a. Except for official budgetary files maintained by the Programs Management Branch and cost estimates maintained by the Engineering Division, the PM shall keep the official file copy of all schedules, cost estimates, and project management reports on the projects for which he/she is responsible.

b. The Project Management Branch shall maintain the file of the project management reports and the Executive Summary forwarded to CELMV, and the other Project Review Board files.

14. CORRESPONDENCE. When consistent with other regulations or directives, the DP will sign all correspondence with the customer and other external organizations dealing with costs, budgets and schedules. The chiefs of the functional divisions will, when appropriate, sign all correspondence dealing with technical matters. The DP shall be on the signature ladder for all correspondence not signed by him/her that deal with costs, budgets and schedules. The chief of the technical functions will be furnished a copy of all correspondence with the customers that is prepared by the PM or DP; conversely the chiefs of the technical function will furnish the PM a copy of all correspondence with the local sponsor. All correspondence requiring the District Commander's signature will be routed through the DP and the PM.

15. COMMUNICATION.

a. The PM's primary point of contact with functional divisions or offices will be the designated Technical Managers

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from these units unless otherwise indicated by the chief of these units.

b. All directives, requests or similar matters will be made in writing. If verbal communications are necessary, they will be confirmed by memorandum.

DR
oms, LTC, jr
THOMAS C. SUERMANN
COL, EN
Commanding

APPENDIXES:

A-Summary of Primary Responsibility,
PM and Functional Chiefs

B-Construction Work-In-Progress
(CIP) Account

C-Labor Charges

DISTRIBUTION:

SF

CELMV-IM-O (2)

CELMS-IM-P (2) Records Manager

AH

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APPENDIX A

SUMMARY OF PRIMARY RESPONSIBILITY PM AND FUNCTIONAL CHIEFS

	PROJECT MGMT	FUNCTIONAL CHIEF
Feasibility Cost Sharing Agreement		
Prepares Cost Sharing Agreement		x
Coordinates with Customer	x	
Project Cooperation Agreement	x	
Schedule Preparation		
Scopes/Defines Work	x	x
Prepares Time & Cost Estimates		x
Prepares Work Descriptions		x
Establishes Cost Codes	x	
Assembles Time & Cost Estimates	x	
Prepares Network Analysis	x	
Submits to and Coordinates Schedules with Division Office	x	
Prepares Tentative Schedule	x	
Cost Estimates		
Baseline Cost Estimate		x
Project Cost Estimate	x	
Functional Elements Input to Above Estimates		x
Technical Work		
Scopes/Defines Work	x	
Prepares Studies, FDM's and P&S		x
Prepares GRR's, Engineering Appendices, and LRR's for projects authorized by WRDA90 or earlier		x
Prepares Reevaluation Reports for projects authorized after WRDA90		x
Prepares GDM's		x
Conducts Construction Quality Assurance Policy		x
Prepares Fact Sheets	x	x
Prepares Correspondence on Technical Issues		x
Prepares Documents for A-E and Construction Contracts		x
Manages A-E and Construction Contracts		x
Coordinates with Customer and Outside Agencies on Technical Details		x
River Engineering		x
Milestone Meetings and Issue Resolution Conferences	x	x
Public Meetings	x	x

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	PM	FUNCT CHIEF
Coordination with Customer		
Coordinates Customer and Corps Schedules and Budgets	x	
Determines and Satisfies Customer's Needs	x	
Keeps Customer Informed of Progress	x	
Coordinates Technical Matters		x
Project Management		
Prepares Project Management Reports	x	
Participates in Monthly Line Item (Tentative Schedule) Review Meeting	x	x
Participates in PRB Meetings	x	x
Prepares PRB Summary	x	
Modifications and Claims		
Coordinates with Contractors		x
Coordinates with Customer	x	
Operation and Maintenance of Projects		
Daily Operation and Maintenance		x
Functional Divisions' Budgets		x
Project Budget Submissions	x	

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APPENDIX B

DR 5-2-1 PROJECT MANAGEMENT

CONSTRUCTION WORK-IN-PROGRESS (CIP) ACCOUNT

1. At the time a project is established, PM must identify whether the project will be federally owned or transferred to the local sponsor upon completion. PM will furnish RM-F classification if the project is federally owned, and RM-F will maintain project information.
2. During the life of the project PM and RM-F will review applicable reports to identify any inactive projects. PM and RM-F will coordinate to ensure that completed work is transferred from the CIP account.
3. Upon completion of the project:
 - a. If transferred to the local sponsor, the PM will forward a completed ENG Form 3013 to RM-F upon completion and acceptance by the local sponsor.
 - b. If federally owned, the PM will forward the completed ENG Form 3013 to RM-F when the project or separable physical units are complete.
4. Annually, and prior to fiscal year end, RM-F will provide a list of items in the CIP account to PM. PM will review this list and certify to RM-F that all remaining projects are valid CIP projects.

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APPENDIX C
DR 5-2-1 PROJECT MANAGEMENT
LABOR CHARGES

1. DIRECT LABOR: Personal services are charged directly when one hour or more of a technical division employee's time during a day is applicable to a specific project or other account.

2. INDIRECT LABOR: Personal services are charged indirectly when less than one hour of a technical division employee's time during a day is applicable to a specific project. Labor efforts of a general nature not applicable to a specific job or project should also be charged indirectly.

3. TRAINING: Labor relating to training (including full time attendance at colleges and universities), staff meetings, professional seminars, recruiting efforts, committee meetings, and other such activities will be charged to the appropriate departmental overhead. If training is related to a single project only it may be chargeable to that project.

4. SUPERVISORY AND SUPPORT STAFF: Technical division chiefs, their assistants, branch and section chiefs, are working supervisors. The one-hour rule applies to their productive and review efforts. Their effort applied to general supervision and administration should be charged indirectly. Also, some of the effort of technical division stenographic, secretarial, and clerical personnel is indirect in nature. However, the one-hour rule is appropriate when they perform work obviously traceable to a specific end product, for example, when typing contractual documents or design engineering statements.

5. SPECIFIC PROJECTS:

Labor hours actually worked on a specific project or reimbursable orders must be charged to that project or reimbursable order. Under no circumstances will labor hours be charged or transferred to another project, or a departmental overhead account to mask cost overruns, compensate for funding shortfalls, avoid reprogramming actions, mask potential anti-deficiency act violations or clear labor rejects.

Charging or transferring labor hours actually worked on a specific project or reimbursable order to another project, reimbursable order or to a departmental overhead account for these purposes in itself results in a statutory violation and could ultimately result in an anti-deficiency act violation.

Managers of all technical organizations must establish and maintain procedures and internal controls to ensure labor hours are not mischarged.