

Reclamation Manual

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Subject:	Reclamation Information Management and Technology (IMT) Investment Management Framework
Purpose:	The purpose of this Directive and Standard (D&S) is to provide a framework that establishes a Bureau of Reclamation-wide capital planning and investment control (CPIC) process. The benefit of this D&S and framework will be the effective and efficient identification, selection, control, and evaluation of IMT investment options that support mission and business needs in compliance with statutory and regulatory requirements and Department of the Interior policy.
Authority:	National Defense Authorization Act for Fiscal Year 2015 (January 3, 2014), Division A, Title VIII, Subtitle D- <i>Federal Information Technology Acquisition Reform</i> , Sections 831-837 (Pub. L. 113-291); Clinger-Cohen Act of 1996 (Information Technology Management Reform Act of 1996 and National Defense Authorization Act for Fiscal Year 1996) (Pub. L. 104-106); Office of Management and Budget (OMB) Circular A-11, <i>Preparation, Submission and Execution of the Budget</i> ; OMB Circular A-130 – <i>Managing Information as a Strategic Resource</i> ; OMB Memorandum M-15-14 – <i>Management and Oversight of Federal Information Technology</i> ; Department of the Interior Departmental Manual Part 375 Chapters 1, 2, 6, 12, and 19; Department of the Interior FITARA Implementation Plan; and Office of the Secretary Order 3309 - <i>Information Technology Management Functions and Establishment of Funding Authorities</i>
Approving Official:	Associate Chief Information Officer (ACIO), Information Resources Office (IRO)
Contact:	IRO, Service Strategy Division (SSD) (84-21200)

1. Introduction.

The Clinger-Cohen Act of 1996 was enacted to reform government IMT investment processes and to establish a comprehensive framework for planning, budgeting, procuring, and managing IMT through well-defined performance and results-based investment management practices. It further required agencies to have a well-disciplined and integrated CPIC process to monitor IMT investments and ensure the investments successfully contribute to the achievement of agency strategic goals and objectives, and improve project outcomes over time. This includes processes for selecting, controlling, and evaluating IMT investments, and IMT workforce management. More recently, the Federal Information Technology Acquisition Reform Act (FITARA) reinforced the Clinger-Cohen Act principles, strengthened the authority of agency chief information officers (CIOs) and emphasized the need for the IT, business mission programs, human resources, acquisitions, and budget/finance communities to work across organizational

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lines to optimize IT's benefits to the agency. To support this legislation, OMB established various circulars and instructions to focus agency efforts on improving IT investment management practices. OMB Circulars A-130 and A-11 require agencies to establish a disciplined CPIC process for IMT portfolio analysis; investment and risk management; performance-based acquisition management; and the cost-effective life-cycle management of IMT resources. The Department also established policies and directives to further ensure compliance with legislation and OMB requirements aimed at improving IMT investment management practices, including guidance for a CPIC process. This D&S describes Reclamation's CPIC process and IMT investment management requirements.

2. **Applicability.**

This D&S applies to all Reclamation personnel involved in the management of Reclamation IMT investments. This D&S applies to all IMT assets, and associated resources, owned and/or administered by Reclamation, including specialized systems (e.g., Operational Technology (OT) systems, Geographic Information Systems, etc.).

3. **Program Administration.**

A. The ACIO:

- (1) is responsible for administering the IMT investment management framework and the associated CPIC program.
- (2) is responsible for integrating the IMT CPIC process with the IMT portfolio management program.

B. Directors and Executive Owners:

- (1) are responsible and accountable for ensuring IMT investments and resources are designed, acquired, developed, operated, and managed in accordance with the policies, directives and standards, and guidelines in support of Reclamation missions.
- (2) are responsible for keeping the ACIO adequately informed of IMT management issues (e.g., IMT security matters, risk management issues, system accreditation issues, IMT investment decisions, IMT life-cycle and acquisition decisions, IMT workforce training needs and requirements, and IMT performance accomplishments).

C. IMT Investment Business Owners/Functional Sponsors:

- (1) are responsible for supporting the design, development, acquisition, operation, security, and maintenance of IMT investments supporting mission related operations.

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- (2) are responsible for effectively managing supporting resources (funding and personnel) essential to the development, operation, security, investment management, and maintenance of IMT investments.
- (3) are responsible for appointing an IMT investment manager, or assuming the role of investment manager, for each investment under their purview and ensuring the IMT investment manager has the appropriate training and resources to manage each investment.

D. IMT Investment Managers:

- (1) are responsible for identifying and tracking IMT investment risks, performance, funding, acquisitions, and projects as well as developing and maintaining investment documentation and artifacts.
- (2) are responsible for communicating investment needs and updates to the appropriate investment executive and business owners, leadership, regional IT system security managers, and the CPIC Team.
- (3) are responsible for managing IMT investments including the coordination of IMT operations, maintenance, services, and related project activities or tasks to achieve established performance goals and ensure stakeholder involvement and satisfaction.
- (4) are responsible for ensuring that investment artifacts comply with Department and Reclamation requirements and are in alignment with existing and future business objectives, security, and/or modernization plans.
- (5) are responsible for coordinating across regions and directorates if the investment has multiple regions and directorates participating in the investment.
- (6) are responsible for maintaining a FAC-P/PM, Senior Level, certification with the IT Core Plus specialization, if they are an investment manager for a Major investment.

- E. Managers and supervisors are responsible for ensuring compliance with Reclamation and Department-level IMT management program requirements within their organizations. This includes following and enforcing applicable IMT requirements related to the design, development, operation, and maintenance of investment's supporting mission-related operations or activities (e.g., developing and reviewing IMT portfolio artifacts, following IMT acquisition and life-cycle documentation requirements, and ensuring compliance with IMT security policies and procedures).

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F. CPIC Team:

- (1) will provide subject matter expertise on CPIC processes and investment portfolio management to ensure consistency in meeting federal policies.
- (2) will manage the CPIC process to ensure consistency across the Bureau, and provide clear understanding of process roles, responsibilities, and timing among all accountable parties.
- (3) will manage, measure, and improve the CPIC policy, process, procedures, and tools to promote continuous improvement of the CPIC process and its outcomes.
- (4) will keep the ACIO informed about the health of the overall investment portfolio.

G. Information Resources Business Advisory Council (IRBAC):

- (1) will serve as Reclamation's IMT Investment Review Board.
- (2) will review the IMT investment portfolio and budget submissions as outlined in the IRO IRBAC Charter.

4. CPIC Phases.

The CPIC process is continuous and includes three phases – Select, Control and Evaluate.

A. Select.

The select phase ensures that only IMT investments that best support Reclamation's mission and business objectives are implemented. To ensure ongoing IMT investments are in line with Reclamation mission and business objectives, capital asset plans and other project management documents will be reviewed by the ACIO. This includes reviewing if investments include adequate levels of planning and development, modernization, or enhancement (DME) and are aligned to Reclamation's approach to portfolio management and strategic planning initiatives. The review will also include an assessment of the risks, costs, technical options, technical complexity, and expected benefits of the IMT investment as part of a screening process. The ACIO will prioritize IMT investments as deemed appropriate, coordinate with appropriate Reclamation leadership and budgeting teams as required, and forward IMT investment recommendations to the Department and OMB as part of the annual budget submission process.

B. Control.

The control phase ensures that IMT initiatives are conducted in a disciplined, well-managed, and consistent manner, delivering quality products and services, which are completed within scope, on time, and within budget. The control phase encompasses

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the processes and activities required to monitor IT investment performance and develop corrective actions where necessary. Activities in the control phase include Monthly Control Reporting, Organizational Assessments, and Artifact updates. Any potential or ongoing performance issues or problems associated with an IMT investment must be reported to business owners/functional sponsors, executive owners, and the ACIO.

C. Evaluate.

As part of the evaluation process, IMT investment business owners and executive owners/directors are responsible for assessing the status of IMT investments. Both major and non-major IMT investments will be evaluated on at least an annual basis by the ACIO and Department CIO as part of Reclamation's overall IMT portfolio management process. The evaluation will determine whether investments adequately support Reclamation mission and/or business objectives, duplicate existing investments or services, and sufficiently contribute or enhance technical and functional capabilities or efficiencies within the organization. The ACIO will review all IMT investments as part of this process and may recommend continuing, delaying, or terminating/rejecting IMT projects based on cost, schedule, or performance results and variances. The CIO will further review, validate, and approve major IMT investments as part of the Department-wide IMT CPIC process and budgeting cycle.

5. CPIC Requirements.

A. Investment Management.

IMT investments or capital assets must be managed throughout all phases of the project life cycle. The IMT investment manager (with support of the Integrated Project Team) is responsible for developing and maintaining artifacts for the IMT investment, completing required investment management documents and plans, developing cost/benefit analyses on IMT alternatives or options, and ensuring the accomplishment of IMT investment milestones and performance objectives as defined in project documents, plans, and the approved investment charter. Investment documents, plans, and artifacts must clearly define the costs, risks, schedules, and performance goals of the IMT investment.

B. Reporting Requirements.

The CPIC process requires the completion of reporting and documentation for all IMT investments on a regular basis. Artifacts must be developed using the format and instructions established by OMB and Departmental guidance.

(1) Monthly Control Reporting (MCR).

MCR is designed to monitor and assess the performance of IMT investments and ensure the achievement of expected benefits. IMT investment managers must provide publicly releasable MCR data to the CPIC Team monthly by the

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established due date. Data provided in MCR is submitted to DOI, OMB, and the IMT Dashboard where IMT data is visible to the public.

- (a) **Performance Metrics.**
All major investments must report on IMT investment performance metrics to establish and identify investment performance.
 - (b) **Risk Register.**
All IMT investments must report risks monthly, using the DOI developed Risk Register template.
 - (c) **Project Reporting.**
Major investments with DME projects are required to report project updates monthly.
 - (d) **Systems Reporting.**
All IMT investments are required to report systems and applications associated with the investment monthly.
 - (e) **Contract Reporting.**
All IMT investments are required to report contracts associated with the investment within 30 days of award.
- (2) **Investment Artifact Compliance.**
OMB requires agencies to develop, maintain, update, and submit IMT investment artifacts on a regular basis. Investment artifacts play an important role in the CPIC process as they provide essential information and documentation throughout the investment lifecycle. Artifacts serve as an information repository capturing critical details about each investment including its purpose, scope, expected benefits, costs, and risks. Artifacts help make evidence-based decision making possible and increase the likelihood of selecting investments that deliver value.
- (a) **IMT Investment Charter.**
The IMT Investment Charter provides the initial official authorization for the IMT investment and addresses business needs, objectives, and success criteria. The IMT Investment Charter is often the very first document created as the kickoff for the investment. IMT investment managers, in coordination with the business sponsor, are required to develop, maintain, update, and submit the IMT Investment Charter artifact for all major and non-major IMT investments upon IMT investment initiation. The ACIO will review and sign off on the IMT Investment Charter, ensuring there is no duplication of effort elsewhere in the IMT portfolio and the investment is aligned with strategic goals.

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(b) **Operational Analysis.**

The Operational Analysis is a formal analysis to determine whether the investment is meeting program objectives and the needs of owners and users, as well as performing within baseline cost, schedule, and performance goals. The Operational Analysis seeks to examine specific areas such as: customer results, strategic and business results, technical innovation, and financial performance. The Operational Analysis ensures steady state investments are continuing to meet their stated goals and intended objectives and are still yielding expected benefits. Considerations must be included within the Operational Analysis, such as how the investment objectives could be better met, how costs could be reduced, and whether the investment will continue. For major and non-major investments, updates are required annually from business/functional sponsors, executive owners, and investment managers.

(c) **Risk Management Plan.**

Planning for risk management is a critical component of investment management. Risk management is a continual process and must be conducted throughout the life cycle of an investment. The Risk Management Plan requires established procedures to ensure that risks are properly assessed, monitored, and managed. Utilizing a Risk Management Plan allows leadership to effectively manage, plan for, and mitigate risks during the execution of an IMT investment. For major investments only, updates are required annually from business/functional sponsors, executive owners, and investment managers.

(d) **Acquisitions Plan.**

The Acquisition Management Plan ensures acquisitions and procurements related to the IMT investment are managed in an effective, compliant, and efficient manner. For major investments only, updates are required annually from business/functional sponsors, executive owners, and investment managers.

(e) **Analysis of Alternatives.**

The purpose of the IMT Investment Analysis of Alternatives is to provide a means for systematically comparing and evaluating solutions based on cost, benefit, and risk parameters. For major investments only, updates are required every three years from business/functional sponsors, executive owners, and investment managers.

(f) **Project Charter.**

An IMT Project Charter documents the business needs, assumptions, constraints, the understanding of high-level requirements, and the new

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product, service, or result that it is intended to satisfy. For major investments only, a project charter is required for any DME project, prior to the start of the project.

- (g) **Corrective Action Reports (CAR).**
For major investments only, CARs will be submitted within 30 days of a project cost variance or schedule variance of +/- 10% being identified.
- (h) **Performance Baseline and Re-Baseline Document.**
For major investments with active DME projects, a project baseline is required to be submitted with the Project Charter. If the project schedule or costs are anticipated to exceed the planned schedule or costs by 10% or more, a re-baseline is required.
- (i) **Product Backlog.**
For major investments with software development projects that are using the Agile Development Methodology, a product backlog must be maintained and include a list of the new features, changes to existing features, bug fixes, infrastructure changes, or other activities that deliver a specific outcome.
- (j) **Sprint Plan and Burn Down Chart.**
For major investments with software development projects that are using the Agile Development Methodology, a sprint plan and burn down chart are required to define what can be delivered in the sprint and how that work will be achieved.
- (k) **Release Plan.**
For major investments with software development projects that are using the Agile Development Methodology, a release plan is required to be maintained and must map out how and when features, or functionality, will be released and delivered to users.
- (l) **Post Implementation Review (PIR).**
PIRs help determine whether investments and projects have achieved expected benefits, such as lowered cost, reduced cycle time, increased quality, or increased speed of service delivery. A PIR is required within six months after the completion of a major investment project.
- (m) Additional artifacts may be required by the ACIO or OCIO depending on the phase, status, or health of the investment. In the event additional artifacts are required, the IRO CPIC team will communicate the need to the investment manager.

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C. **IMT Budget Formulation, Review, and Certification.**

The Reclamation IMT budget formulation process enables the Bureau to meet the legislative requirements of OMB and FITARA. Budget formulation includes budget projections for all IMT investments, regardless of funding source. Budgets, including the budget formulations, will undergo an IRO developed process to validate accuracy and compliance. As part of the Reclamation annual IMT budget cycle, IMT budget owners are required to submit IMT investment budget and expenditure data to the ACIO.

(1) **IMT Budget Formulation.**

Reclamation is required to report IMT budgets to DOI and OMB annually and must be broken out into unique costs including: Investment name, funding source, lifecycle phase, Technology Business Model (TBM) cost pools and sub-cost pools, and TBM towers and sub-towers. The annual IMT budget formulation, for each investment, will be submitted using IRO provided templates. This ensures consistency and the ability to meet all OMB reporting requirements.

(2) **IMT Budget Review.**

The IRBAC will review the annual IMT budget submission data for all investments and provide a comprehensive report to the ACIO. This provides the ACIO the necessary information and transparency for certification of the Bureau's IMT budget through the Joint Certification Process.

(3) **IMT Budget Certification.**

To meet FITARA requirements, the Department developed a Joint Certification Process which includes an IMT Joint Certification Statement (JCS) and supplementary JCS budget exhibit(s). The Joint Certification Process was implemented to meet the requirement for the Chief Financial Officer (CFO) and CIO in communicating IMT portfolio priorities by certifying the prioritization and allocation of IMT budgetary resources. Reclamation requires JCS signatures from the ACIO, Bureau Budget Officer, CFO, and Deputy CFO.

D. **IMT Portfolio.**

Reclamation's IMT portfolio will be maintained to readily identify all IT investments and supporting components. The IMT portfolio documents IMT investments within the portfolio and supports the alignment of IMT investments with mission and business goals and objectives. Reclamation's IMT portfolio is maintained within the Department's electronic capital planning and investment control system and provides for the ongoing integration of the following: budget formulation, budget execution, capital planning and investment control initiatives, IMT security, and IMT project management.

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6. Definitions.

A. **Capital Planning and Investment Control or CPIC.**

A structured, integrated approach to manage the IMT portfolio and investments which ensures that IMT investments align with the mission the organization; support business needs; minimize risks and maximize returns on IMT investments throughout the life cycle of all IMT investment projects; and report on investment performance and health to appropriate oversight boards and/or organizations, including Congress, OMB, and the Department. The CPIC process supports the ongoing selection, control, and evaluation of the IMT portfolio, including investment options and decisions.

B. **IMT Investment.**

An expenditure of IMT resources to address mission delivery and management support. An IMT investment may include a project or projects for the DME, or maintenance of a single IT asset or group of IT assets with related functionality and the subsequent operation of those assets in a production environment.

C. **IMT Portfolio.**

Summarizes agency IT spending on all IMT investments and is provided to OMB annually as part of the budgeting process. The IMT portfolio contains all elements as explained in OMB Circular A-11.

D. **IMT System.**

A discrete set of information resources organized for the collection, processing, maintenance, transmission, and dissemination of information, in accordance with defined procedures, whether automated or manual.

E. **Information Management and Technology or IMT.**

See IRM P05.

F. **Information Technology or IT.**

See IRM P05.

G. **Integrated Project Team (IPT).**

A multi-disciplinary team led by an IMT investment manager responsible and accountable for the planning, budgeting, procurement, and life-cycle management of the IMT investment to achieve cost, schedule, and performance goals. Team skills generally include but are not limited to budgetary, financial, capital planning, procurement, contracting, value management, program expertise, and staff resource management skills.

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H. Investment Review Board (IRB).

A board that provides Reclamation's ACIO with input on the IMT investment portfolio, IMT management practices, and IMT strategies that best support mission and business processes and functions.

I. Life Cycle Costs.

The overall estimated cost for a particular program, initiative, or system over the time period corresponding to its life. This includes direct and indirect costs, any periodic or continuing costs for operation and maintenance, and eventual retirement or replacement costs, as deemed appropriate.

J. Major IMT Investment.

IMT investments that require special management attention because they meet at least one of the below criteria:

- (1) the investment has \$30M, or greater, in Total Lifecycle Funding (3-year total; prior year (PY), current year (CY), and budget year (BY)).
- (2) the investment is important to the mission or plays a significant role in administration of programs, finances, property, or other resources.
- (3) the investment is identified by executive leadership as critical.
- (4) the investment is high risk as determined by Departmental or bureau enterprise risk management processes, OMB, the Government Accountability Office, Congress and/or the CIO.
- (5) the investment is identified as a High Value Asset.
- (6) the investment is an E-Government initiative and involves multiple bureaus and offices.

K. Non-Major IMT Investment.

IMT investments that do not meet the definition of a major IMT investment and are not classified as a Standard Investment. All non-major IMT investments must be reported individually on the IMT portfolio provided to OMB as part of the IMT CPIC management and budgeting process.

L. Standard Investment.

IMT investments that include, but are not limited to, commonly used enterprise-wide information systems, services, computing infrastructure, and other technology services and applications that are commonly used across each Federal agency.

7. Review Period.

The originating office will review this release every four years.