

Information Technology Capital Plan

Department IT Capital Plan



**Information Technology Capital
Plan, Plan Year 2009-10 through
2013-14 Executive Approval
Transmittal**

Department Name

Department of Conservation

APPROVAL SIGNATURES

I am submitting the attached Information Technology Capital Plan as required by the State Administrative Manual Section 4904.

I certify that the IT Capital Plan was prepared in accordance with State Information Management Manual section 57 and that the proposed IT projects are consistent with our business strategies and information technology strategy.

I have reviewed and agree with the information in the attached Information Technology Capital Plan.

Chief Information Officer		Date Signed
Printed name: Kevin See		
Information Security Officer		Date Signed
Printed name: Jeff Diamond		
Budget Officer		Date Signed
Printed name: Ken Lehn		
Department Director		Date Signed
Printed name: Bridgett Luther		

DEPARTMENT IT CAPITAL PLAN

Department Name and Org Code:

Department of Conservation - 3480

Plan Year:

2009-10 through 2013-14

1. Summarize your organization's business goals and objectives below:

The Department of Conservation (DOC) established enterprise-wide goals are:

- Effectively focus and provide staff with the resources to sustain a high-performance work culture.
- Ensure the sustainability of the DOC programs.

With a team of scientists and other dedicated professionals, the DOC administers a variety of programs vital to California's public safety, environment and economy. The services DOC provides are designed to balance today's needs with tomorrow's obligations by fostering the wise use and conservation of energy, land, and mineral resources. Below is an overview of DOC's Divisions including their goals and beneficial strategic outcomes.

Division of Land Resource Protection: The DOC administers or supports a number of programs designed to promote orderly growth in coordination with agricultural endeavors. Key tools available for land conservation planning are conservation easement grants, tax incentives to keep land in agriculture or open space, and farmland mapping and monitoring.

Goals:

1. Lead the change in the value proposition for the conservation of agricultural and open space land in California.
 - Strategic outcome: The eventual adoption into the local land use decision-making process the fact that some land has more value to the community as working land through the ecosystem services it provides than it would have as developed land.
2. Define a statewide watershed program.
 - Strategic outcome: Sustained collaborative management of the state's watershed systems that retains and enhances the goods, services, and values they produce.

Division of Recycling: By recycling glass, plastic, aluminum and bimetal beverage containers, Californians reduce litter while saving energy, natural resources and landfill space. The DOC promotes bottle and can recycling through education and outreach to beverage retailers, consumers and recycling centers.

Goals:

1. Improve the eco-effectiveness of recycling.
 - Strategic outcome: Increase the amount of technical material returned to industry.
2. Implement programs to achieve sustainable containers, packaging materials and systems.
 - Strategic outcome: Increase the proportion of sustainable packaging used in California.

California Geological Survey: In the United States, only Alaska experiences more earthquakes than California. Scientists from DOC gather data on earthquakes and map earthquake faults and related hazards. This information is used to make buildings and structures that are better able to withstand earthquakes, minimizing loss of life and property damage. In addition, the Mineral Resources Program gathers, analyzes and distributes information on the state's mineral resources to help prevent valuable mineral deposits from being lost.

Goals:

1. Increase the competitiveness of California Geological Survey (CGS) products and services, branding CGS as California's premier source for geologic and seismic information.
 - Strategic outcome: Mitigation of hazards to the public health and safety from earthquakes and other geologic phenomena, sustainability of the state's businesses and economy, and promotion of the sound management of California's natural resources and the protection of its environment.

Division of Oil, Gas, and Geothermal Resources: DOC ensures the safe exploration and development of energy resources. It oversees the construction, operation and closure of oil, gas and geothermal wells, an important step in guarding drinking and agricultural waters against pollution. DOC also is the clearinghouse for information about the state's oil, gas and geothermal industry, with more than 170,000 well records, production and injection statistics, well logs and field maps.

Goals:

1. Expand the enforcement program for the maintenance of active lease facilities and remediation of orphan lease facilities, including pipelines, tanks and other surface equipment.
 - Strategic outcome: Eliminate the deserted oilfield facilities and bring derelict facilities into compliance, protecting public health and safety.
2. Facilitate the wise development of oil, gas, and geothermal resources to meet the state's demand for energy production while continuing to protect public safety and the environment.
 - Strategic outcome: Provide information to stakeholders that improves efficiency and assists in making informed decisions.

Office of Mine Reclamation: The reclamation of mined lands was not addressed in state law before 1975. The Surface Mining and Reclamation Act (SMARA) is the link between producing the mineral products important to California and protecting the environment. Under SMARA every mining operation must have a permit to mine, an approved reclamation plan (the mined land must be restored or altered to a condition agreed upon prior to mining), and a financial assurance to ensure reclamation is performed in accordance with the approved reclamation plan.

Goals:

1. Facilitate effective working relationships between lead agencies and mine operators to increase SMARA compliance and lead agency/mine operator understanding of effective SMARA compliance.

- Strategic outcome: Adverse effects of mining are prevented or minimized, mined lands are reclaimed to a beneficial use, and the need for enforcement is reduced.
2. Increase the level and effectiveness of lead agency SMARA enforcement.
 - Strategic outcome: Lead agency enforcement is consistent with statute and all mining operations are in compliance with SMARA.
 3. The Abandoned Mine Lands Unit (AMLU) will become the primary source of information with respect to abandoned mines and their remediation in California.
 - Strategic outcome: A new clearinghouse of abandoned mine information facilitates public and private hazard remediation efforts to protect public health and the environment at historic mining sites.

The DOC Office of Technology Services (OTS) works with the Divisions to identify and implement technology that supports all of these program goals. The OTS mission is to provide premier information technology services that advance the DOC in achieving optimal effectiveness and in implementing innovative solutions. OTS is committed to using best practices in procurement, development, support, and management of IT resources. OTS strives to maintain responsive and comprehensive customer service and to provide a reliable, productive, secure, and cost effective computing and network infrastructure.

2. What are your organization's plans to upgrade or replace your IT infrastructure for the following? When responding, please indicate the timeframes of your intended upgrade or replacement efforts.

The DOC must maintain a reliable and secure infrastructure to support business processes that enable the DOC to satisfy State mandates and continue to provide uninterrupted services to its staff, business partners and the general public and comply with State IT security policies and industry best practices regarding technology upgrades, security patches and upgrades, firewall configuration, server configuration, and server hardening.

The DOC's Information Technology Infrastructure Support (ITILS) plan outlines an ongoing four-year cycle to upgrade or replace 25% of the DOC's IT infrastructure on an annual basis. Incremental upgrades or replacements ensure consistent and reliable support necessary to secure and maintain the DOC's IT infrastructure and effectively leverage costs for hardware, software, and network upgrades or replacements.

This proposal presents a technology refresh strategy to replace 25% of the DOC IT infrastructure each year. Such an approach maximizes functional life spans of components and minimizes unanticipated outages or security breaches that may result from obsolete technology and service maintenance.

2.1. Hardware

Upgrade / replace percentage of hardware on four (4) year cycle
 Annual, planned infrastructure hardware replacement
 Annual, planned incremental maintenance services for infrastructure hardware

2.2. Software

Upgrade / replace percentage of software on four (4) year cycle
 Annual, planned infrastructure software replacement

2.3. Network

Upgrade / replace percentage of network on four (4) year cycle
Annual, planned infrastructure network replacement

3. Existing Approved Reportable IT Projects

Provide the following information regarding your existing approved reportable IT projects on Table 1 on the following page:

- Existing IT Project;
- Approved Project Cost;
- Project Number; and
- Implementation Date

4. Proposed IT Projects

After each proposed IT project has been documented by answering questions 4.1 through 4.15 of the attached IT Project Proposal Form, provide the following information on Table 2 on the following page:

- The name of each proposed IT project;
- The priority ranking;
- The FSR submission date; and
- The estimated cost

Table 1-Existing Approved Reportable IT Projects Summary by Department

Existing IT Project	Approved Project Cost*	Project Number	Implementation Date
District Office Tracking and Reporting System (DOTRS)	\$756,100	3480-37	on hold
Division of Recycling Integrated Information System (DORIIS)	\$21,032,284	3480-39	September 30, 2009
Computing Infrastructure Lifecycle Support (CILS)	\$2,148,000	3480-40	06/30/2009
California Well Information Management System (CALWIMS) Phase II	\$1,982,994	3480-41	on hold
Public Records Retention and Searches (PRRS)	\$572,793	3480-42	02/28/2008

***Note:** If a Special Project Report (SPR) was submitted for review in July 2008 that includes project costs that differ from the last approved project document, enter both the last approved project cost and the revised project cost from the SPR under review.

Table 2-Proposed IT Project Summary

Proposed IT Project	Priority Ranking	FSR Submission Date	Estimated Total Cost
Information Technology Infrastructure Lifecycle Support (ITILS)	1	July 15, 2008	\$3,120,000
Enterprise Document Management System	2	July 2010	\$3,000,000
Emergency Offsite Business Resumption Systems	3	July 2012	\$2,000,000

PROPOSED IT PROJECTS

Complete this IT Project Proposal Form (questions 4.1 though 4.15 below) for each proposed IT project that meets the definition of a reportable project as defined in the State Administrative Manual Section 4819.37:

4.1. Proposal name and priority ranking:

Information Technology Infrastructure Lifecycle Support (ITILS)
Rank 1

4.2. Description of the proposed IT project:

The DOC must maintain a reliable and secure infrastructure to support business processes. The DOC must satisfy State mandates and comply with State IT security policies and industry best practices regarding technology upgrades, security patches and upgrades, firewall configuration, server configuration, and server hardening to ensure continued uninterrupted services to its staff, business partners and the general public.

This proposal presents a technology refresh strategy to replace 25% of the DOC IT infrastructure each year. Such an approach will maximize functional life spans of components and minimize unanticipated outages or security breaches that may result from obsolete technology and service maintenance.

4.3. Which of your department's business goals and objectives does this project support, and how?

Every program in the DOC relies heavily on the IT infrastructure to perform daily tasks and accomplish its business functions. A dependable computing environment is crucial to all business operations and supports each business goal and objective.

4.4. What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?

A reliable, secure and managed IT infrastructure provides the following benefits:

- Adoption of security industry best practices and latest technology allows the DOC to adhere to state security recommendations;
- A continually improved IT infrastructure enables the DOC to meet increased demands from its divisions, business partners, and the general public;
- Utilization of centralized IT resources (e.g., shared storage and backups) enables DOC staff to make full productive use of computing resources;
- Conducting planned annual phased replacement and maintenance for infrastructure components minimizes network downtime, providing DOC staff and stakeholders reliable access to applications and web services.

4.5. The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:

Supporting and enhancing services for Californians and businesses

- Enhancing information and IT security
- Reducing state operational costs (leveraging, consolidation, new technology, etc.)
- Improving the reliability and performance of IT infrastructure
- Enhancing human capital management
- Supporting state and agency priorities and business direction

4.6. Is the proposal consistent with your organization's Enterprise Architecture?

- Yes
- No

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

4.7. Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?

- Yes
- No

4.8. If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?

07/2008

4.9. What is the estimated project start date (mm/yyyy) if the FSR is approved?

07/2009

4.10. What is the duration of the proposed project?

Continual on a four-year refresh cycle

4.11. Will the proposed project utilize the existing infrastructure?

- Yes
- No

If no, please explain.

4.12. Is the proposal related to another proposal or to an existing project?

- Yes
- No

If yes, describe the related proposal or project and how it is related:

Computer Infrastructure Lifecycle Support (CILS), Project 3480-40, initiated the first four years of the DOC's IT infrastructure refresh strategy. Funding for this project ends June 30, 2009.

4.13. Describe the consequences of not doing this proposed project at the planned timeframe:

- As existing infrastructure ages and becomes obsolete, the DOC would be subject to widespread system performance degradation and faults that would worsen over time.
- The network would become vulnerable to security risks as the network equipment became increasingly dated.
- Longer downtimes would result if major system components were replaced only when they malfunctioned.
- Costs for staff downtime would be excessive during potential network outages.
- DOC would risk loss of services to employees, business partners, and the public.
- Additional expenses would be required for contract services and overtime if a major equipment upgrade were undertaken all at once.

4.14. Check the appropriate box(es) to identify the proposal's funding strategy:

- Augmentation needed**
- Redirection of existing funds**
- Other (describe):**

4.15. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund						
Federal Fund						
Special Fund*	\$624,000	\$624,000	\$624,000	\$624,000	\$624,000	\$3,120,000
Total						

*** Note: Identify the fund source and if the department is the sole user of the fund.**
 California Beverage Container Recycling Fund (0133), the Mine Reclamation Account (0336), the Oil, Gas, and Geothermal Administrative Fund (3046), and the Soil Conservation Fund (0141).

PROPOSED IT PROJECTS

Complete this IT Project Proposal Form (questions 4.1 through 4.15 below) for each proposed IT project that meets the definition of a reportable project as defined in the State Administrative Manual Section 4819.37:

4.1. Proposal name and priority ranking:

Enterprise Document Management System
Priority Rank 2

4.2. Description of the proposed IT project:

This proposal covers an Enterprise Document Management solution using technologies to capture, manage, store, preserve, and deliver content and documents related to organizational program processes. The DOC must maintain and preserve its documents that are critical to the regulatory programs administered by each of the Divisions.

- Ensure that well records are available for research and inquiry online.
- Ensure that mission critical hardcopy original documents are available for disaster recovery.
- Relieve staff of the responsibility of reproducing records from hardcopy documents for land developers, government agencies, and other entities.
- Provide secure backup of the hard-copy records, which would allow cost-effective, adequate and timely re-creation of damaged or destroyed records.
- Reduce the use of original hard-copy records, since their use contributes to deterioration, misplacement and loss of documents.
- Make available to staff electronic record images, which would increase staff productivity by reducing hard-copy searches and printing of documents from hard-copy.

4.3. Which of your department's business goals and objectives does this project support, and how?

DOC established enterprise-wide goals are:

- Effectively focus and provide staff with the resources to sustain a high-performance work culture.
- Ensure the sustainability of the DOC programs.
- Reduce reliance on paper.
- Improve access to data and effectively use technology to support DOC's programs.

Developing a document management system will allow better access to and control over both current and historical documentation. For example, DOC is the clearinghouse for information about the state's oil, gas and geothermal industry, with more than 170,000 well records, production and injection statistics, well logs and field maps. By means of efficient electronic document management, this project will support Division goals such as those listed below:

Division of Oil, Gas, and Geothermal Resources

- Expand the enforcement program for the maintenance of active lease facilities and remediation of orphan lease facilities, including pipelines, tanks and other surface equipment.
- Facilitate the wise development of oil, gas, and geothermal resources to meet the state's demand for energy production while continuing to protect public safety and the environment.

California Geological Survey

- Increase the competitiveness of California Geological Survey (CGS) products and services, branding CGS as California's premier source for geologic and seismic information.

Office of Mine Reclamation

- The Abandoned Mine Lands Unit (AMLU) will become the primary source of information with respect to abandoned mines and their remediation in California. A new clearinghouse of abandoned mine information will facilitate public and private hazard remediation efforts to protect public health and the environment at historic mining sites.

4.4. What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?

The specific benefits include the following:

- Online access to information that was formerly available only on paper, microfilm, or microfiche
- Reduction of paper handling and error-prone manual processes
- Reduction of paper storage
- Reduction of lost documents
- Faster access to information
- Improved control over documents and document-oriented processes
- Streamlining of time-consuming business processes
- Security over document access and modification
- Reliable and accurate audit trails
- Improved tracking and monitoring, with the ability to identify bottlenecks and modify the system to improve efficiency

4.5. The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:

- Supporting and enhancing services for Californians and businesses**
- Enhancing information and IT security**
- Reducing state operational costs (leveraging, consolidation, new technology, etc.)**
- Improving the reliability and performance of IT infrastructure**
- Enhancing human capital management**
- Supporting state and agency priorities and business direction**

4.6. Is the proposal consistent with your organization's Enterprise Architecture?

- Yes
 No

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

4.7. Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?

- Yes
 No

4.8. If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?

07/2010

4.9. What is the estimated project start date (mm/yyyy) if the FSR is approved?

07/2011

4.10. What is the duration of the proposed project?

18 to 24 months

4.11. Will the proposed project utilize the existing infrastructure?

- Yes
 No

If no, please explain.

4.12. Is the proposal related to another proposal or to an existing project?

- Yes
 No

If yes, describe the related proposal or project and how it is related:

4.13. Describe the consequences of not doing this proposed project at the planned timeframe:

- Inability to ensure mission critical hardcopy original documents are available for disaster recovery
- Inability to effectively manage the vast number of documents
- Increase paper handling and error-prone manual processes
- Increased costs of paper storage
- Risk of lost documents
- Increased staff time to locate documents for review, modification, distribution
- Limited access to information
- Manual retrieval to information available only on paper, microfilm, or microfiche

- Inconsistent control over documents and document-oriented processes
- Streamlining of time-consuming business processes
- Security over document access and modification open to human error

4.14. Check the appropriate box(es) to identify the proposal's funding strategy:

- Augmentation needed**
 Redirection of existing funds
 Other (describe):

4.15. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund						
Federal Fund						
Special Fund*			\$1,500,000	\$1,500,000		\$3,000,000
Total						

*** Note: Identify the fund source and if the department is the sole user of the fund.**

California Beverage Container Recycling Fund (0133), the Mine Reclamation Account (0336), the Oil, Gas, and Geothermal Administrative Fund (3046), and the Soil Conservation Fund (0141).

PROPOSED IT PROJECTS

Complete this IT Project Proposal Form (questions 4.1 through 4.15 below) for each proposed IT project that meets the definition of a reportable project as defined in the State Administrative Manual Section 4819.37:

4.1. Proposal name and priority ranking:

Emergency Offsite Business Resumption Systems

4.2. Description of the proposed IT project:

This proposal presents a technology solution to ensure the recovery of the DOC mission critical systems and data in response to a disaster that destroys or prevents access to the production data.

4.3. Which of your department's business goals and objectives does this project support, and how?

The Department of Conservation (DOC) enterprise-wide goal:

- Ensure the sustainability of the DOC programs.

4.4. What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?

An available, reliable, secure alternate IT infrastructure provides the following benefits:

- Adoption of disaster recovery best practices and latest technology allows the DOC to adhere to state security recommendations.
- An alternate IT infrastructure enables the DOC to meet immediate demands from its divisions, business partners, and the general public.
- Utilization of alternative IT resources (e.g., hot site equipment, data, and applications) enables DOC staff to effectively resume business operations.
- Utilizing a disaster recovery hot site for infrastructure components quickly provides DOC staff and stakeholders reliable access to data and applications.

4.5. The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:

- Supporting and enhancing services for Californians and businesses
- Enhancing information and IT security
- Reducing state operational costs (leveraging, consolidation, new technology, etc.)
- Improving the reliability and performance of IT infrastructure
- Enhancing human capital management
- Supporting state and agency priorities and business direction

4.6. Is the proposal consistent with your organization's Enterprise Architecture?

- Yes
 No

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

4.7. Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?

- Yes
 No

4.8. If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?

07/2012

4.9. What is the estimated project start date (mm/yyyy) if the FSR is approved?

07/2013

4.10. What is the duration of the proposed project?

12 months

4.11. Will the proposed project utilize the existing infrastructure?

- Yes
 No

If no, please explain.

This proposal establishes an alternate IT infrastructure at a hot site to ensure the recovery of the DOC mission critical systems and data in response to a disaster that destroys or prevents access to the production data.

4.12. Is the proposal related to another proposal or to an existing project?

- Yes
 No

If yes, describe the related proposal or project and how it is related:

4.13. Describe the consequences of not doing this proposed project at the planned timeframe:

- No alternate site prevents the utilization of the DOC backed up data assets and applications after a disaster disabling the DOC production systems.
- DOC would risk loss of services to employees, business partners, and the public.
- Additional expenses would be required for contract services and overtime if a major equipment replacement were undertaken all at once.

4.14. Check the appropriate box(es) to identify the proposal's funding strategy:

- Augmentation needed**
- Redirection of existing funds**
- Other (describe):**

4.15. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund						
Federal Fund						
Special Fund*					\$2,000,000	\$2,000,000
Total						

*** Note: Identify the fund source and if the department is the sole user of the fund.**
 California Beverage Container Recycling Fund (0133), the Mine Reclamation Account (0336), the Oil, Gas, and Geothermal Administrative Fund (3046), and the Soil Conservation Fund (0141).

Enterprise Architecture

A.1. Does your organization have documented Enterprise Architecture principles, strategies, or standards to guide decisions on technology projects?

- Yes
- No

A.2. Indicate on Table A-1 below, the completion status of the component Reference Models of your formal Enterprise Architecture efforts. If available, please submit a copy of your Enterprise Architecture document.

Table A-1, Enterprise Architecture Completion Status

Component Reference Model	Status			
	Implemented	Implementation in Progress	Planned or Planning in Progress	Not Implemented and Not Planned
Business			Planning in Progress	
Service			Planning in Progress	
Technical			Planning in Progress	
Data			Planning in Progress	

A.3. Describe the governance structure your organization uses to review and approve the Enterprise Architecture and any subsequent changes.

Review and approval of enterprise architecture and any changes thereto are currently steps within the system development life cycle methodology and the IT project review and approval processes.

The DOC is in the initial stages of planning an Information Technology Governance (ITG) structure and the associated ITG processes.

A.4. Does your organization have an Enterprise Architect? (if yes, provide their name, telephone number, and e-mail address below)

- Yes
- No

Name: _____

Classification: _____

Telephone Number: _____

Workforce Development, Workforce Planning and Succession Planning

B.1. How is your Information Security Officer involved in proposed project development efforts?

The DOC Information Security Officer participates in the review and approval of technology requests that involve the access and security of the DOC network and data, including the review of security requirements and security tests.

B.2. What are your department's core business principles, policies and standards related to information integrity, confidentiality, and availability and the protection of information assets?

The DOC strives to provide secure, IT services to the DOC users and customers. The State Administrative Manual (SAM), Statewide Information Management Manual (SIMM), and the Conservation Administration Manual (CAM) policies and standards are followed at the DOC. Effective security is a team effort, involving the participation and support of all DOC personnel and business partners who deal with information and/or information systems. It is the responsibility of every DOC employee to know these guidelines, and to conduct his/her activities accordingly.

B.3. If data within your department is shared with external entities, does your department implement data exchange agreements with these entities?

- Yes
 No

If no, please explain.

- Not applicable

B.4. How does your department ensure that software developers and programmers follow standards and best practices for Web, application, and system development?

The DOC project management methodology includes system development life cycle project oversight, deliverable reviews, quality assurance and quality control for all software development projects. All DOC IT development projects follow the DOC Application Development standards. Both the project management methodology and the application development standards include peer review signoffs and signature approvals for the project deliverables.

B.5. Does your organization have an Information Security Officer? (if yes, provide their name, telephone number, and e-mail address below)

- Yes
 No

Name: Jeff Diamond
Classification: Staff Counsel III (Specialist)
Telephone Number: (916) 323-6733 **E-Mail:** Jeff.Diamond@conservation.ca.gov

Workforce Development, Workforce Planning and Succession Planning

C.1. Does your organization have a workforce development plan for IT staff?

- Yes
- No

If yes, briefly describe it.

The DOC developed a workforce development plan referenced as the Transitions Program. The Transitions Program is a deliberate and systematic effort to ensure leadership continuity in key department positions. DOC designed this program to develop and strengthen critical technical and institutional knowledge for the future and encourage staff development and advancement. It's simply about preparing today's staff resources for the challenges of tomorrow. The Transition Program has two distinctive tracks:

- Track one - Leadership Development
- Track two - Technical Knowledge and Skills Retention

C.2. Check the appropriate box(es) to identify which workforce development tools, if any, your organization is using for IT classifications:

- Training
- Upward Mobility
- Mentoring
- Career Assessments
- Knowledge transfer program
- Performance Evaluations
- Other (please list)

Cross-Training
Self-Development Library with numerous online training courses

C.3. Does your organization have a workforce plan for IT staff (i.e., for Rank and File)?

- Yes
- No

If yes, briefly describe it.

Track two—Technical Knowledge and Skills Retention, “knowledge management”, is a systematic approach to capture, collect, and share unique technical knowledge/skills currently possessed or known intrinsically to only one or a few DOC employees, in order to ensure their availability in DOC’s future.

Annually and in conjunction with the Individual Development Plan process, each DOC Division/Office will conduct an assessment to identify any critical, unique technical knowledge or skill at risk for loss for any number of reasons. Division/Office management will work with the “expert” employee(s) to create a Knowledge/Skill Retention Plan that may include documenting specialties, training others, or even re-engineering to ensure minimal impact by future retirement or attrition. This Transitions track will ensure that DOC can retain and utilize information or skills essential to completing its mission.

Workforce Development, Workforce Planning and Succession Planning
C.4. Does your organization have a succession plan for IT staff (i.e., for Management)?

- Yes**
 No

If yes, briefly describe it.

Track one—Leadership Development uses a Leadership Development Pool to develop a group of candidates for DOC middle- and senior-level management jobs. Development of Pool members is through special assignments, short term and/or training and development assignments that optimize the Pool member's learning experience.

Pool members will have an assigned sponsor and will receive focused leadership training, feedback, and coaching. They will be expected to apply newly acquired competencies to their current job. An Executive Review Board (ERB) made up of DOC's Director or his/her designee and representative Division Chiefs will review applications, confer with sponsors as needed and choose the final Pool members, limiting their selection to those most qualified. The ERB monitors Pool members' development and readiness with help from the Transitions Administrator.

C.5. IT Staffing

Provide the following information in table C-1 on the following page:

- **The name of each IT classification currently in the organization.**
- **The number of staff in each IT classification in the organization.**
- **The number of staff in each IT classification eligible to retire in the next five years.**
- **The percentage of each IT classification eligible to retire in the next five years.**

Table C-1 — IT Staffing

IT Rank and File Staff Classification	Number of IT Rank and File Staff in Classification	Number of IT Rank and File Staff in Classification Eligible to Retire in Next 5 Years	IT Management Staff Classification	Number of IT Management Staff in Classification	Number of IT Management Staff in Classification Eligible to Retire in Next 5 Years
Sr. Info Systems Analyst (Spec)	2	2 (100%)	C.E.A. II	1	
Staff Info Systems Analyst (Spec)	6	2 (33%)	Data Processing Manager III	1	1 (100%)
Assoc Info Systems Analyst (Spec)	4	3 (75%)	Sys Software Spec III (Supv)	1	1 (100%)
Asst Info Systems Analyst (Spec)	2	2 (100%)	Sr. Info Systems Analyst (Supv)	2	2 (100%)
Sys Software Spec III (Tech)	2	1 (50%)			
Sys Software Spec II (Tech)	3	1 (33%)			
Sys Software Spec I (Tech)	2	2 (100%)			
Sr. Progmr Analyst (Spec)	2	2 (100%)			
Staff Progmr Analyst (Spec)	2	2 (100%)			
Assoc Progmr Analyst (Spec)	1	1 (100%)			
Research Prog Spec III (GIS)	1				
Research Analyst II (GIS)	1				

Project Management, Portfolio Management and IT Governance

D.1. Does your organization have a process for improving the alignment of business and technology?

- Yes
 No

If yes, briefly describe it.

The DOC OTS uses a Customer Driven Quality roadmap and focuses on the products and services delivered directly to customers by the programs. The OTS strategies are directly linked to the DOC business plan and support the DOC's business strategies and tactics. Prioritization of IT projects is set annually during the strategic planning process. IT priorities and oversight of major IT projects are discussed in executive management meetings. To ensure the ongoing alignment of business and technology, the DOC CIO meets biweekly with the Deputy Director and monthly with the Director.

D.2. What is the status of implementing a formal portfolio management methodology for technology projects within your organization?

- Implemented (Please describe)
- Implementation in progress (Please describe)
- Planned or planning in progress
- Not implemented and not planned

D.3. List any automated tools being used for portfolio management. Enter "None" if no automated tools are being used.

Microsoft SharePoint

D.4. What is the status of implementing a standard project management methodology for technology projects in your organization?

- Implemented (Please describe)
- Implementation in progress (Please describe)

The DOC adheres to the Office of the State CIO (OCIO) project management oversight and reporting framework, and the Statewide Information Management Manual project management methodology and utilizes a System Development Life Cycle (SDLC). The DOC developed standard project management templates for project planning and for project deliverables. To ensure conformance to the established project management methodology, the DOC either contracts for an Independent Project Oversight Consultant (IPOC) or provides project oversight to projects. The DOC has successfully executed all phases of its project management methodology that includes the following structured phases:

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- **Project Initiation** – During this phase, business problems and/or opportunities are identified, and project objectives are defined, along with supporting functional requirements. Upon assessing various alternatives in terms of benefits and costs, the most appropriate alternative is selected. A preliminary project work plan is then developed in support of the proposed alternative's implementation. A Feasibility Study Report (FSR) represents the primary deliverable of the Project Initiation phase.
- **Discovery (Conceptual Design)** – During this phase, the project scope is confirmed in terms of its high level functional components and supporting data requirements. External interfaces are identified from which the list of project stakeholders is derived. Additionally, a project charter is developed.
- **Define (Requirements/Logical Design)** – During this phase, functional and system requirements are defined. Deliverables are produced describing the logical business processes, the underlying business rules, the data entities used by those processes and the relationships involving those entities. Hardware and software requirements are defined and prototypes are developed as appropriate.
- **Design (Physical/Technical Design)** – During this phase, physical requirements are defined. Deliverables are produced describing the physical attributes, software structure, interfaces and detailed design for the requirements described in the logical design deliverables. The physical design specifications created will be used in the Construction phase.
- **Construction/Configuration** – During this phase, program modules are constructed and hardware/software installed and configured. Program modules are constructed based on the approved physical design specifications. Once developers have completed coding, they are responsible for writing and executing unit test plans to ensure that the program modules function according to the physical design specifications. The hardware/software is installed and configured based on the approved physical design specifications. Once the installation is completed, the system engineers are responsible for writing and executing test plans to ensure that the hardware/software function according to the physical design specifications.
- **Integration Test** – During this phase, knowledgeable technical resources outside the development team independently test the interaction of software within each functional component of the application/system. Additional test plans are developed and executed to specifically test the integration points between modules, or objects, comprising those functions.
- **System Test** – During this phase, the system is tested from the business process perspective. Test plans are prepared and executed to exercise the entire system as the users would execute the functions in production. Additionally, a performance test is conducted in conjunction with the business-oriented system test to ensure that the system meets DOC performance standards.
- **Training/User Acceptance** – During this phase, training material is developed, training programs prepared and the actual training of staff is conducted. Additionally, business staff, with assistance from the project team, develops and executes the user acceptance plan. Typically, user acceptance includes some level of production simulation.
- **Implementation** – During this phase, all actions necessary to transition the application from the development environment into the production environment are planned and executed. These activities include post-implementation validation to confirm that the production system is running according to requirements.

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- **Maintenance and Operations** – During this phase, all actions necessary to maintain the application in the production environment are planned and executed. These activities include confirmation that the production system is operational and any change requests or fixes to the production systems follow the system development life cycle steps.

- Planned or planning in progress**
- Not implemented and not planned**

D.5. Does the organization require its project managers to be certified, either through a professional organization (e.g., PMI, ITIL) and/or through completion of specified project management coursework:

- Yes**
 - PMI**
 - ITIL**
 - Agency-specified project management coursework (identify below)**
- No**

D.6. Select from the list other areas of training your organization requires of its project managers:

- Fundamental Project Management**
- Systems Development Life Cycle**
- Scheduling tool (identify below)**
 - **MS Project**
 - **Excel**
 -
- Project Performance Management (e.g., Earned Value Management)**
- Business Process Analysis**
- Requirements Traceability**
- Procurement/Contracts Management**
- Other (identify below)**
 -
 -
 -
- None**

D.7. Describe project-level governance practices, including change management, issue resolution, and problem escalation.

The DOC incorporates ongoing project governance through the following activities:

- Project planning and status meetings with the project team, including the OTS senior management responsible for the functional areas impacted, and as needed, the Chief Information Officer.

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- Project status and schedule reports, including major project activities initiated or completed, are provided to the DOC project steering committee. The project steering committee includes the DOC executive management, specifically, the executive sponsor, technology sponsor, business manager, technical manager, independent project oversight, and project manager.

The DOC uses standard change management procedures throughout the various phases and deliverables of the system development life cycle. The DOC's change management methodology includes procedures for issue tracking and resolution as well as procedures that support the tracking of production and test incidents through identification, analysis, fix and retest.

Change management roles and responsibilities are defined for each project. A project baseline based on the documented FSR or project charter is established for the project scope, budget, and schedule. The change management process includes:

- Change Request Submittal
- Review and Logging
- Impact Analysis
- Decision – Approved or Denied
- Implementation and closure of approved change requests
- Maintenance

This process is scaled to meet the scope, duration and resources of the project.

D.8. Does the project management methodology include processes for documenting lessons-learned and applying these to future projects?

Yes (Please describe)

At the completion of the project either the Project Oversight or the Quality Assurance Team will provide a Lessons Learned Report. This report will list all items that worked well and did not work well during the different phases of the project lifecycle. This document will also list recommendations for the challenges faced during the project. The lessons learned document will be used by other projects to avoid or prepare for the common challenges that were faced by earlier projects.

Following are the steps involved in creation and use of this document.

- 1) Project has reached completion.
- 2) Project Oversight or QA Team conducts Lessons Learned session(s) with the project team to discuss challenges and accomplishments during different phases of the project.
- 3) Project Oversight or QA Team documents these items into a Lessons Learned report and publishes it for review by the project team.

No