



Information Technology Capital Plan

Agency IT Capital Plan

Information Technology Capital Plan, Plan Year 2009-10 through 2013-14



Agency Approval Transmittal

Agency Name

California Environmental Protection Agency

APPROVAL SIGNATURES

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

I certify that:

- The IT Capital Plan was prepared in accordance with State Information Management Manual Section 57; and
- The IT project proposals included in the IT Capital Plan are approved and represent my Agency's Information Technology priorities.

Agency Information Officer		Date Signed
Signed Original On File		Signed Original On File
Printed name:	Gary Arstein-Kerslake	
Agency Secretary		Date Signed
Signed Original On File		Signed Original On File
Printed name:	Linda Adams	

AGENCY INFORMATION TECHNOLOGY CAPITAL PLAN

Agency Name and Org Code:

**Environmental Protection, Secretary for
(Organization Code 0555)**

Plan Year:

2009-10 through 2013-14

1. List your constituent-departments' names and organization codes below:

DEPARTMENT	ORGANIZATION CODE
• Air Resources Board	3900
• Integrated Waste Management Board, California	3910
• Pesticide Regulation, Department of	3930
• State Water Resources Control Board	3940
• Toxic Substances Control, Department of	3960
• Environmental Health Hazard Assessment, Office of	3980

2. Please describe the Agency's coordination efforts among your constituent-departments in the following areas:

2.1. Strategic Planning

Among Cal/EPA and the constituent BDOs, a multi-year planning effort was concluded in March 2003. The "Integrated Data for Environmental Assessment (IDEA)" report was the primary deliverable from this cross-organizational planning and analysis. It has served as the general guideline for information exchange initiatives within Cal/EPA for the past five years. During the development of the IDEA report, an Executive Steering Committee was established to oversee implementation of the findings of this report. In June 2005 (citation?), Cal/EPA, its constituent BDOs, and USEPA Region 9 representatives conducted an offsite strategic planning effort related to improved information exchange. The Executive Officers meet on a monthly basis to discuss a variety of topics. When appropriate, IT-related topics are added to the agenda for review and discussion.

Within the individual Boards, Departments and Office in Cal/EPA, these organizations typically conduct their own strategic planning initiatives.

2.2. Enterprise Architecture

For exchange of information between organizations, Cal/EPA has adopted the USEPA and State's National Environmental Information Exchange Network SOA-based architecture (see <http://www.exchangenetwork.net/>). For network infrastructure and architecture, Cal/EPA and the BDOs have implemented a model based on the standard Core-Distribution-Access layer model. This approach has facilitated significant sharing of equipment, contracts and communication links. For application development and directory services, the BDOs are

provided assistance to encourage their adoption of “standard” technologies and architectural components. However, with the exception of Media Services, Cal/EPA generally does not require the BDOs to adopt a specific technology platform or architecture.

2.3. Portfolio Management, Project Management, and IT Governance

In general, the application development environment used by the various BDOs is increasingly Web-based and operates within a Server-based computing environment. As a result, traditional “portfolio management” has less relevance in that environment. The individual BDOs have project management strategies in place in their organizations.

Regarding IT governance, as noted previously, relevant IT-related topics are included in the monthly Executive Officer’s meetings for discussion. On a monthly basis, the Information Management Advisory and Coordinating Committee meets with a specific focus on cross-organization IT-related topics.

2.4. Workforce Development

The Assistant Secretary for Fiscal and Administrative Programs meets on a weekly or biweekly basis with the Administrative Chiefs of each of the Cal/EPA constituent BDOs. During these meetings, strategies and opportunities for workforce development are discussed, along with other administrative and HR-related topics. To facilitate their collective efforts, the organizations often cooperate on examination processes. Another example is the development of the Agencywide Telecommute Policy used as the baseline policy by all the BDOs.

2.5. Workforce Planning and Succession Planning.

In the context of the Administrative Chief’s meeting referred to above, general discussion of workforce planning and succession planning takes place. And, since all Cal/EPA organizations have access to the intranets of their sister organizations, the Cal/EPA BDOs are able to share information regarding their succession planning efforts. However, there is not a specific cross-organization initiative related to workforce planning and succession planning at the present time.

3. What is the status of implementing a formal Enterprise Architecture within your Agency?

For the purposes of the exchange of environmental data, the agencywide enterprise architecture that applies for Cal/EPA and the BDOs is the architecture of the National Environmental Information Exchange Network (NEIEN). The goal of NEIEN is to revolutionize the exchange of environmental information through the use of Service-Oriented Architecture. Partners on the Exchange Network share data efficiently and securely over the Internet and offers the potential for providing real-time access to higher quality data while saving time, resources, and money for partner states, tribes, and territories. Among the Cal/EPA BDOs, several are actively participating in this initiative, but it remains an attractive option for the BDOs and not a requirement.

For all other ‘Enterprise Architecture’ services, Cal/EPA looks forward to the standards and services that will be developed at the Statewide level following from projects such as Fi\$cal, 21st Century Project, etc.

Table 1- Summary of Agency-Approved Proposed IT Projects

Department Org Code and Acronym	Agency-Approved Proposed IT Projects	Agency Priority Ranking	FSR Submission Date	Estimated Total Cost (dollars)
Cal/EPA 0555	Green IT Implementation	1	Internal; none req'd	~ \$100,000
Cal/EPA 0555	Enhanced Cross-Organizational Collaboration	2	Internal; none req'd	~ \$50,000
Cal/EPA 0555	Improved Disaster Recovery Capabilities	3	Internal; none req'd	~ \$600,000 total
Cal/EPA 0555	Environmental Data Exchange of Facility Information	4	Internal; none req'd	~ \$150,000
Cal/EPA 0555	E-Mail and Calendar – Enhanced Services	5	Internal; none req'd	Planning only

Brief Description of Agency-Approved Proposed IT Projects

GREEN IT IMPLEMENTATION

In December 2000, in a presentation on “Information Technology Services & Infrastructure” given to Executive Officers within Cal/EPA and the BDOs, it was proposed as one of the fundamental operating guidelines of Cal/EPA that “Cal/EPA take [a] leadership role in implementing “green” IT infrastructure, and procurement practices, including recycling of components”. Cal/EPA (and CIWMB) has been a very early adopter in the area of advanced power management of desktop computers, reduced and recycled packaging, alternative use of equipment, recyclability of equipment, etc. However, these principles have not been consistently adopted throughout the various Cal/EPA BDOs, and there are many new opportunities regarding improved power management and reduced electrical consumption in IT. Plus, there could be a broader benefit from this effort if it was documented and made available for use by other State organizations.

ENHANCED CROSS-ORGANIZATIONAL COLLABORATION

Cal/EPA (and CIWMB) provide a comprehensive array of “tools” to facilitate cross-organizational collaboration and communication. This includes extensive audio and audio/video Webcasting, Web Forums, ListServes, etc. We have also recently significantly expanded the use of SharePoint “Project Sites”, and are also now performing a significant number of Webconferences. It is our objective to broaden the use of SharePoint “Project Sites” throughout the organization, and to fully

explore options for extending the current Webconferencing capabilities to additional Cal/EPA BDOs to facilitate the work of staff.

IMPROVED DISASTER RECOVERY CAPABILITIES

State organizations are required to maintain Operational Recovery Plans (ORP) which pertain to the recovery of information resources (not general business processing) following a disaster. In many cases, the recovery strategy laid out in their ORP is a minimal function recovery. There could be a significant lag in the recovery of most information services, especially Web-based systems. State organizations are also required to perform ongoing backups of data for recovery in the event of an equipment malfunction, and they are required to store backup copies of data (e.g., tapes) at offsite locations to allow for recovery in the event of a catastrophic failure at the primary business location (fire, flood, explosion, etc.). Within the context of these business requirements, the technology is changing rapidly such that tape-based backups are now augmented with real-time replication and clustering of information services to increase fault tolerance and reliability. And, high-speed Metropolitan Area Networks (MAN) are now available in many areas to provide low-cost alternatives for restoring communication pathways.

The opportunity exists to evaluate “disaster recovery” as an Agencywide issue and consider options for shared use of technologies and facilities.

ENVIRONMENTAL DATA EXCHANGE OF FACILITY INFORMATION

Cal/EPA's Environmental Data Exchange Team (EDET) has created a pilot, internal-use-only composite database of selected facility-oriented BDO data to answer the fundamental question of, for a given facility, what Cal/EPA regulatory oversight activities are occurring at that facility. This project is fully consistent with Cal/EPA adoption of the NEIEN SOA-based model along with the use of the federal Facility Registry System facility identifier. However, because the original BDO databases are so different in format, content, and field specifications, ongoing work is needed to analyze, cleanup, and add information to the composite database and establish a process for maintenance and periodic updates. Cal/EPA is working toward this goal and will solicit active participation from the BDOs who are the owners of the information.

E-MAIL AND CALENDAR – ENHANCED SERVICES

Within Cal/EPA, two of the organizations have been using Outlook/Exchange for more than a decade, while another is in the process of moving off an outdated E-mail system and into Exchange, and the other four organizations are active users of GroupWise E-Mail and Calendaring. Worldwide, among major business enterprises, Exchange now has about 60% market share, while GroupWise is languishing at about 5%. Within the State of California, Exchange is used in 70% of the organizations, and Dept of Technology Services has been offering this as a service since they converted to Exchange 5-7 years ago. Cal/EPA and CIWMB were one of the first adopters of Exchange 2007 in the State, and has offered significant “integration” of E-mail services for some time.

In Cal/EPA, we have already implemented cross-organizational “directory” services, and have implemented services such as automated communication of All Hands messages throughout the organization. However, significant inefficiencies remain due to the inability at present to reconcile calendars across organizations. At the same time, new enhanced capabilities are available for messaging and calendaring with Exchange 2007 and products such as Office Communications Server that hold the promise of increased efficiencies for organizations that are able to adopt these technologies (Corporate Instant Messaging; Corporate Presence Management; VoIP and Unified Messaging, etc.).

The State CIO’s Office has initiated a project through the E-Services “team” to work with the various State E-mail administrators to develop by October 2010 a plan for migrating State E-mail systems to Exchange. At the same time that this is occurring, significant changes are taking place with respect to alternatives for hosting and delivering E-mail Messaging and Calendaring services (e.g., Multi-tenant, Single tenant, Externally Hosted, and Externally Managed). Cal/EPA is fully committed to ensuring that the BDOs are implementing those technologies that allow them to be recognized as international leaders both in terms of their regulatory roles and in terms of their technology services and flexibility. At present, we are much better known for our regulatory programs than our IT prowess. Cal/EPA will seek to facilitate the development of an effective and consistent strategy for delivering E-mail Messaging and Calendaring services throughout Cal/EPA.
