



# State of California

California Department of Boating and Waterways

## Information Technology Capital Plan

September 5, 2008



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

**Department Name**

**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.

<b>Chief Information Officer</b>		<b>Date Signed</b>
<b>Printed name:</b> Frank Wong		
<b>Information Security Officer</b>		<b>Date Signed</b>
<b>Printed name:</b> Margarita Sanchez		
<b>Budget Officer</b>		<b>Date Signed</b>
<b>Printed name:</b> Kathy Emery		
<b>Department Director</b>		<b>Date Signed</b>
<b>Printed name:</b> Raynor Tsuneyoshi		

## DEPARTMENT IT CAPITAL PLAN

Department Name and Org Code:

Boating and Waterways (3680)

Plan Year:

2009/10 through 2013/14

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

To provide safe and convenient public access to California's waterways and leadership in promoting the public's right to safe, enjoyable, and environmentally sound recreational boating.

### 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.

#### 2.1 Hardware:

Year 1:

- Upgrade GIS Server
- Upgrade PCs, laptops and printers as necessary

Years 2-3:

- Upgrade 2 servers (7 years old)
- Upgrade PCs, laptops and printers as necessary

Years 4-5:

- Upgrade 2 servers (9 years old)
- Upgrade PCs, laptops and printers as necessary

#### 2.2 Software:

Year 1:

- Upgrade Windows Server 2008
- Upgrade SQL server, ESRI ArcSDE and ArcIMS, Websense web security
- Migrate systems to Windows Vista

Year 2-3:

- Upgrade Windows server 2008 and Exchange server 2007
- Migrate systems to Windows Vista
- Upgrade MS Office

Year 4-5:

- Upgrade Windows server 2008 and Exchange server 2007
- Upgrade Windows client OS
- Upgrade MS Office and Adobe Acrobat

#### 2.3 Network:

Year 1:

- Upgrade network line from T1 to OPT-E-MON 25 MBPS CIR
- Upgrade switches to Cisco stackable switches

Year 2-3:

- Monitor bandwidth and bottleneck issues and make adjustments as necessary

- Continue upgrading to Cisco stackable switches
- Ensure firewall is current and can protect against emerging threats to network and upgrade as necessary

Year 4-5:

- Monitor bandwidth and bottleneck issues and make adjustments as necessary

**3. Existing Approved Reportable IT Projects: None**

**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: See below**

**After each proposed IT project has been documented by answering questions 4.1 through 4.14 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
None			

**\*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
Boating and Waterways Information and Monitoring System (BWIMS)	1	01/2010	\$2,300,000

## PROPOSED IT PROJECTS

Complete this IT Project Proposal Form (questions 4.1 though 4.14 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:**

Boating and Waterways Information and Monitoring System (BWIMS)

**4.2. Description of the proposed IT project:**

Develop and implement a system to interface with existing administrative and program systems, replace fragmented stand-alone systems, reduce manual work steps, develop capacity to collect administrative and program data, develop capacity to monitor department's programs, and develop capacity to analyze data. The major Department of Boating and Waterways (DBW) programs which will potentially be included in this system include the following:

- **Facility Planning, Design, and Construction (Capital Outlay).** The DBW has statutory responsibility to plan, design, and construct all recreational boating facilities in State Parks, on the State Water Project, and on other state-owned and state-managed property (e.g., Department of Fish and Game property).  
The Department's capital outlay projects include: boat launching ramps, slips, hoists, and mooring fields, boarding floats, docks, boat-in day use sites, shoreline improvements, parking areas, restroom facilities, and Boating and Instruction Safety Centers (BISCs). BISCs, also known as aquatic centers, are operated in partnership with state universities and provide opportunities for students and other members of the community to access quality instruction on the safe operation of various types of watercraft. BISCs provide in-class and hands-on learning for people of all ages and ability levels, including children, adults, at-risk youths, and persons with disabilities.
- **Facility Loans and Grants (Local Assistance).** The local assistance public and private loan program funds construction of marinas, boat parking areas, boat storage facilities, and other boating-related facilities. The local assistance grant program provides funding for the construction of public boating facilities on non-state managed land, including city, county, federal, and special district land. These facilities include boat launching ramps, boarding floats, parking areas, and restrooms. Loan and grant recipients must meet specific DBW financial, design, and management requirements to receive funding. Loan repayments are one of the primary sources of revenue to the Harbors and Watercraft Revolving Fund (HWRF).
- **Boating Education and Safety.** The department develops boating education and safety curricula and publications, promotes boating safety through community events and campaigns such as "Wear It California" which promotes life jacket use and "Clean and Green Boating" which also emphasizes environmentally sound boating practices. In addition, DBW collects and analyzes information about boating accidents and fatalities and makes recommendations to improve boating for Californians and boaters nationwide.

- **Boating Law Enforcement and Training.** DBW provides local assistance grants for boating law enforcement, to obtain equipment such as patrol boats, and delivers boating law training programs for local law enforcement personnel.
- **Abandoned Watercraft Abatement.** DBW provides local assistance grants to remove, store, and dispose of abandoned, wrecked, or dismantled recreational vessels which pose a substantial hazard to navigation.
- **Yacht and Ship Licensing Enforcement.** The Department licenses and enforces licensing laws for yacht and ship brokers and salespeople, to protect California consumers, and licenses and regulates vessels for hire to ensure maximum public safety.
- **Non-Native, Aquatic Invasive Species Control.** DBW works directly to control two non-native, invasive aquatic weeds – *Egeria densa* and water hyacinth – in the Delta. In addition, DBW works closely with other state and local authorities to fund control efforts and to educate the public about invasive aquatic species, such as the Quagga mussel. These invasive aquatic species have had significant negative impacts on navigation, aquatic ecosystems, and water supply facilities.
- **Oceanography.** The Department conducts oceanographic research and disseminates data and information on the ocean environment, including waves, sea level, and ocean temperature, variables that are indicators of climate change. DBW and the United States Army Corps of Engineers sponsor the Coastal Data Information Program (CDIP) at the Scripps Institution of Oceanography. CDIP is essential to navigational safety, efficient coastal facilities design, and for future assessments of the coastal impacts of climate change.
- **Beach Erosion Control.** DBW conducts research on beach erosion and provides local assistance grants for maintenance and restoration of California's shoreline and public beaches, for which it is the lead agency.

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

Implement the Information Management Strategic Plan (software, hardware, communications) to support department-wide business needs and to improve communication and information sharing.

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

In general, the expected outcomes and benefits of the proposal are: automated data collection for the Department's programs, standardized data elements and formats, sharing of data across program areas and business functions, availability of data for the Department, State control agencies, and other stakeholders; and support for planning, analysis, policy definition, and decision-making.

A few examples of more specific expected outcomes and benefits include the following:

- **Improved Administration of the Harbors and Watercraft Revolving Fund.** The Department of Boating and Waterways is charged with providing public access to California's many navigable waterways and educating the public on recreational boating safety. DBW's programs are funded primarily from the

Harbors and Watercraft Revolving Fund, which derives its revenues from taxes paid on motor fuel purchased for boats, license fees from recreational boating registration, and repayments from loans made to build publicly and privately owned marinas.

- **Improved Ability to Administer Local Assistance Loans and Grants.** Since 1957, DBW has made 348 small craft harbor planning and construction loans totaling more than \$419 million to public entities. Additionally, it has provided millions of dollars in loans and grants in the programs discussed above in Section 4.2.
- **Improved Ability to Assess the Needs of and Make Decisions with Respect to the Boating Community.** Currently, there are about 2.7 million boats in California. This includes about 952,000 motorized vessels 1.7 million non-motorized boats. The number of boats in California continues to increase.
- **Improve Ability to Plan for Infrastructure Needs.** DBW estimates that the statewide need for recreational boating infrastructure improvement and expansion over the next five years is approximately \$580 million.

Since many boating facilities were built in the 1960s, with a designed life expectancy of 20 years, many facilities are now in need of replacement or renovation. In addition, climate changes such as continually low water levels are making boating inaccessible at California lakes and reservoirs. This creates the need to widen or extend boat ramps to accommodate lower water levels. Beach erosion, facilities damage, and flooding will increase as global warming-driven sea level rise accelerates. Further, water management changes brought about by recent court decisions involving the protection of threatened and endangered fish species are resulting in low-water boating conditions earlier in the boating season. Consequently, DBW is focusing on widening and extending ramps to provide acceptable boat launching capacities throughout the entire boating season.

- **Improved Boating Safety.** California consistently ranks in the top two states nationwide for both the number of boats and the number of boating-related accidents. In 2007, there were a total of 804 reported accidents, with 482 injuries and 55 fatalities on California's waterways. The most common cause of accidents was operator inattention (44 percent) followed by operator inexperience (33 percent) and excessive speed (32 percent).
- **Improved Aquatic Invasive Species Control.** DBW works closely with other state and local authorities to fund control efforts and to educate the public about invasive aquatic species, such as the Quagga mussel. These invasive aquatic species have had significant negative impacts on navigation, aquatic ecosystems, and water supply facilities.

**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?

01/2010

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

01/2011

4.10. What is the duration of the proposed project?

Five years

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:

The Department will continue to:

- Operate without an integrated system to interface with existing administrative and program systems
- Rely on fragmented stand-alone systems
- Use less cost-effective and accurate manual systems
- Have limited capacity to collect administrative, fiscal, and program data

- Have limited capacity to monitor the department's programs
- Have limited capacity to analyze critical administrative, fiscal, and program data

**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):**

<b>Fund Source</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14 and future</b>	<b>Total</b>
<b>General Fund</b>						
<b>Federal Fund</b>						
<b>Special Fund*</b>	150,000	150,000	1,000,000	750,000	250,000	2,300,000
<b>Total</b>	150,000	150,000	1,000,000	750,000	250,000	2,300,000

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

The proposed funding source is the Harbors and Watercraft Revolving Fund (HWRF).  
The Department is not the sole user of the Fund.

**Workforce Development, Workforce Planning and Succession Planning**

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

- Yes
- No

Based on the guidance and directions of the Agency Information Officer (AIO), DBW will begin to establish guidelines and procedures for implementing an Enterprise Architecture that will align with the proposed Statewide Enterprise Architecture.

**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			X	
Service			X	
Technical			X	
Data			X	

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

DBW will plan create a governance structure that will meet the department's business needs and processes that will align with the statewide IT strategy and business needs. This new process will monitor project risk, performance, progress and cost efficiency to avoid cost overrun.

**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:** \_\_\_\_\_ **E-Mail:** \_\_\_\_\_

## Workforce Development, Workforce Planning and Succession Planning

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

The Department's Information Security Officer reviews and approves all proposed IT projects to ensure projects meet security compliance requirements.

### 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 department has established industry standard security procedures and practices. DBW has deployed these security components within the DBW network:

Data encryption method:

- All sensitive, confidential and personal data stored on the department's network servers, PDAs, flash drives, storage media are encrypted with strong password protection.

Physical access and security:

- Server and network equipment are physically protected in a locked computer room with card scan reader which tracks all access to the computer room by IT and other personnel staff.

Virus Protection:

- All network devices including servers, workstations and laptops are protected by Trend Micro anti-virus system. In addition, spam messages, malware and other intrusive messages are blocked by the Surfcontrol filter which traps about 95% of all unwanted spam messages. The Network Administrator is notified when a virus is found within the network and is being quarantined.

Logon password policy:

- All DBW users who have authorized access to the network must log on using a strong password method which consists of: a minimum of eight characters, alpha character, numeric character and one special character. User will need to have the network administrator reset his/her password after 5 unsuccessful logon attempts.

### 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

### Workforce Development, Workforce Planning and Succession Planning

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

All web, application and system development are based on current technology standards (e.g., Java, ASP.net, SQL)

**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: Margarita Sanchez

Classification: Administrative Assistant II

Telephone Number: 916-263-4330 E-Mail: msanchez@dbw.ca.gov

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

- Yes  
 No

If yes, briefly describe it.

The Department has a very small IT staff so workforce development is based on Individual Development Plans which are reviewed on an annual basis.

**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)

**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.

The Department has a very small IT staff so workforce development is based on the Individual Development Plans which are reviewed on an annual basis.

**C.4. Does your organization have a succession plan for IT staff (i.e., for Management)?**

**Workforce Development, Workforce Planning and Succession Planning**

- Yes
- No

If yes, briefly describe it.

**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
Assoc Information Systems Analyst	3	1	Senior Information Systems Analyst (Supervisor)	1	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 Department has developed the following business and strategic plans: DBW Strategic/Tactical Plan; DBW Business Continuity Plan and DBW COOP/COG plan. These plans contain strategies that are related to the department's business goals and objectives.

**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.**

None

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

## Project Management, Portfolio Management and IT Governance

**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)
  - Microsoft Project
  - 
  -
- Project Performance Management (e.g., Earned Value Management)
- Business Process Analysis
- Requirements Traceability
- Procurement/Contracts Management
- Other (identify below)
  - Government and privately hosted workshops (e.g., CIO meetings)
  - Attending project management conferences.
  -
- None

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

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

- Yes (Please describe)

The Department is in the process of developing management methodologies, including post-implementation reviews, to identify the level of the project success. It also includes documenting lessons learned for future projects.

- No