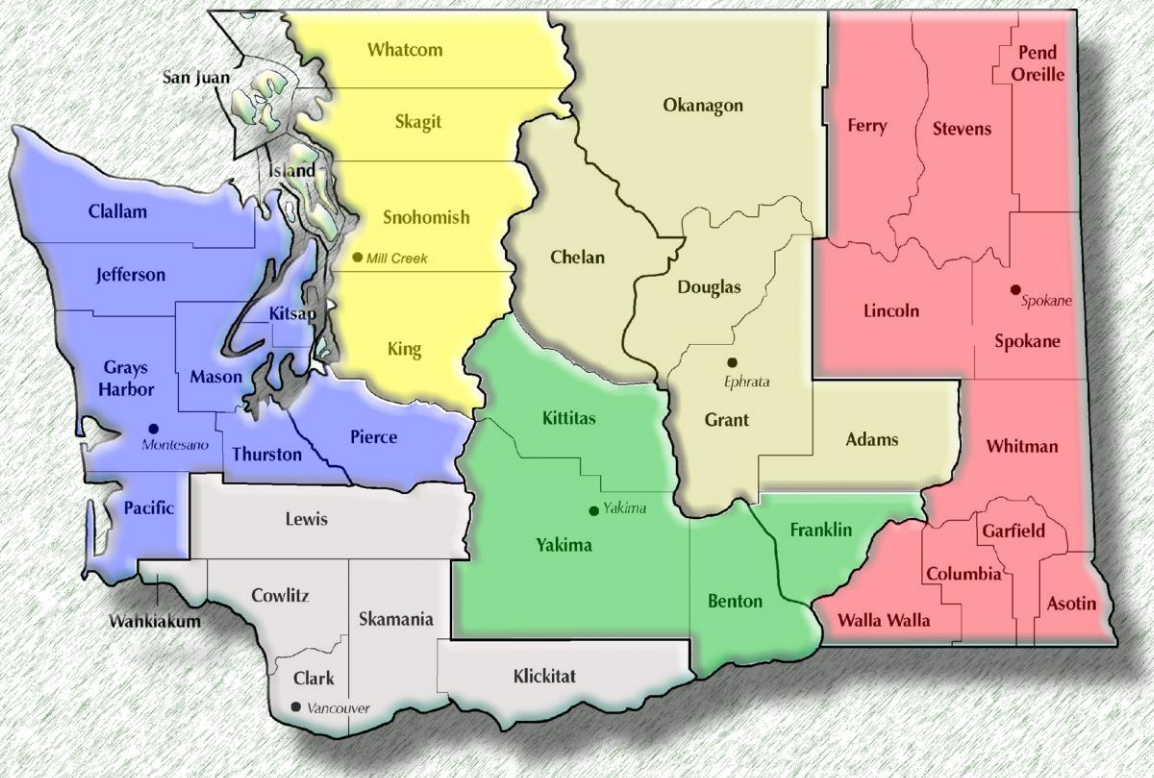
2010 INFORMATION TECHNOLOGY PORTFOLIO

2010 it portfolio



State of Washington
Department of Fish and Wildlife
Information Technology Services

August 2010

Illustrations, Graphs and Photographs

Contents

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1. Overview

A. Purpose

This document, the *2010 Information Technology Portfolio*, represents the current state of Information Technology (IT) for the Washington Department of Fish and Wildlife (WDFW) through the state fiscal year ending June 30, 2010. Adjustments to the agency IT investment portfolio occur throughout the course of the fiscal year in the areas of hardware, software, network infrastructure, maintenance, and staffing.

The Department of Information Services (DIS) defines an IT Portfolio as a *"compilation of information about an agency's investments in its IT infrastructure. The information is organized to show how these investments support the agency's mission and programs and to demonstrate the relationships among current and planned investments. The portfolio enhances the ability of key decision-makers to assess the probable impact of investments on an agency's programs and infrastructure, as well as on the overall state IT infrastructure."*

Accordingly, the purpose of this document is to allow the WDFW to manage its IT investments in the same manner as one would manage other investments, like financial instruments such as stocks or bonds, and real estate**. The department recognizes the business value of IT in allowing it to meet its mandated mission of providing sound stewardship of fish and wildlife.**

This Portfolio demonstrates the value of IT investments to senior managers in order to prepare them and other stakeholders to make important IT investment decisions. Those stakeholders include Division and Regional managers, the Corporate Data Oversight Committee (CDOC), the Executive Management Team, the Director/Deputy Directors, the Fish and Wildlife Commission, DIS management and staff, the Information Services Board, the Office of Financial Management, and members of the Legislature.

WDFW will conduct an annual assessment of this IT Portfolio in conjunction with the biennial and supplemental budget process and make revisions as necessary during the year. The annual assessment will allow WDFW management the opportunity to review:

- WDFW's IT Portfolio
- IT infrastructure changes, investments/projects, and operations
- Relationships between IT investments and the agency's vision, mission, strategies, and programs
- Business process changes that affect the agency's use of IT or plans for IT

In order to present the most up-to-date record of information technology in use at WDFW, we consider the IT Portfolio a "living document." The Portfolio is subject to interim updates throughout the year. The most current information is published to the Information Technology Portfolio Management System (ITPMS).

As the Portfolio is updated, it serves as a tool to show the amount and location of IT investments, as well as to help define the capabilities, limitations, and benefits of the investment in terms of meeting agency business needs.

The WDFW IT Portfolio begins with an overview, followed by additional sections that provide detailed information on the IT infrastructure, technology investment/project summaries, planned investments/projects, and technology investment/project reviews. Among other things, this document:

- Discloses links among agency strategies, business plans and IT investments;
- Facilitates analysis of the risks associated with IT investments and helps ensure that appropriate risk mitigation strategies are adopted; and
- Provides a baseline for agency performance reporting.

Where possible, WDFW investments in IT have been compared with other organizations.

The Information Technology Portfolio is produced in order to document current status and chart a technology direction for the WDFW. In order to set this course, the Department established the following as objectives for the portfolio and the IT planning process:

- To communicate a technology vision to employees.
- To provide a basis to integrate information resources.
- To ensure that funds are spent wisely on information technology.
- To provide systems to support WDFW's internal and external customer base.

B. Convergence of Business Mission and IT Vision

The WDFW 2009-2015 Strategic Plan is incorporated herein as Appendix A. It is also available from the agency web site. http://wdfw.wa.gov/about/strategic_plan/

Figure 1-1. The *WDFW 2009-15 Strategic Plan* affirms the agency's reliance on information technology to meet its goals and objectives.

MISSION STATEMENT

The Washington Department of Fish and Wildlife serves Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable and wildlife-related recreational and commercial opportunities.

In pursuit of this mission, WDFW will strive to achieve the following goals:

- Achieve healthy, diverse and sustainable fish and wildlife populations.
- Ensure sustainable fish and wildlife opportunities for social and economic benefit.
- Ensure effective use of current and future financial resources in order to meet the needs of the state's fish and wildlife resource for the benefit of the public.
- Implement processes that produce sound and professional decisions, cultivate public involvement and build public confidence and agency credibility.
- Promote development and responsible use of sound, objective science to inform decision-making.
- Create an environment that nurtures professionalism, accountability, enthusiasm and dedication in order to attract, develop and retain a workforce that can successfully carry out the mandate of the department.

1. Synopsis of Strategies to Achieve the Mission

To achieve these goals, WDFW will use good science to manage fish and wildlife populations, protect habitats, and influence decision-making processes. The Department will work with customers, internal and external, to identify sustainable recreational and commercial opportunities, and to develop partnerships that assist in achieving the WDFW's mission. Operational excellence will be based on modern and efficient business practices and the infrastructure to support them.

2. Alignment of Current IT Investments with Business Objectives

WDFW continually engages in assessment of the agency's IT investments and direction. The IT strategy is an integral part of the overall agency strategic plan. Modifications to the WDFW IT strategic direction are driven by agency business needs, but also by overall state government IT policy and statewide systems directions. In this way, WDFW's IT strategy supports agency business needs and is consistent with the overall state strategic direction.

The WDFW's current IT investments are focused on providing the operational support needed for resource and business management goals and objectives. The areas of IT investments include:

- Supporting and extending electronic communications.
- Providing information access for internal and external customers.
- Improving administrative business management and office support systems.
- Supporting resource data management and providing decision-making support applications.

The aggregated investments provide significant support for carrying out the Department's mission.

3. The Role of IT in Helping WDFW Meet Its Goals

IT plays an important role in assisting the WDFW to meet its goals and objectives. IT provides the electronic communications infrastructure, and the tools to effectively manage and make available data resources. The tools, methods, and infrastructure provided by IT enable the agency to move forward in key areas. IT plays a key role in the ongoing agency strategic planning process, providing an essential foundation for success.

- Tools for effective management of fish and wildlife based on science

  IT provides a data management environment, tools to analyze data, and methods to access data that promote a science-based resource management strategy.

Figure 1-2. WDFW resource technicians use a laptop computer to automate the entering of clam measurement data from a digital caliper and scale. *(Dale Gombert)*

- Business application systems that promote efficient processes and opportunities

  IT provides applications such as the Washington Interactive License Database (WILD), Licenses and Fish Tickets (LIFT), and Hydraulic Project Management System (HPMS) that enable agency resource management, business, and regulatory processes.

- Communications and information access systems that promote partnerships and consistency with state standards

  IT provides electronic messaging systems, Intranet content for employees, and Internet Web content that communicates the agency message to the public.

- Viewing IT as an agency asset to implement internal business strategies

  IT provides support services, data management, and applications to support the agency drive to achieve internal operational excellence.

4. Future Needs for IT Investments

The following IT areas will need investment attention to improve support for the agency mission:

- Improved access, including remote access, to state and agency internal networks

  As the agency continues to develop web-enabled applications, improvements in access to the agency network will be needed for all remote office personnel. State government systems continue to assume that all state employees have network connectivity.

  Better network access facilitates improved communications and provides opportunities for more efficient, unified business support processes. Expanded use of remote network access technology such as digital cellular access is needed.

- Continued Participation in state Enterprise Architecture Initiatives

  WDFW continues to pursue changes in its IT architecture to align with common state systems, as illustrated by the recent move to Exchange email and Enterprise Active Directory. These changes will continue to provide benefits in system integration, identity management, multi-agency projects, and statewide system development. WDFW is also active in state Enterprise Architecture policy development.

- Network and server infrastructure improvements

  Infrastructure replacement and improvements will continue as business needs for better network performance drive the use of technical advances in the networking field. WDFW expects to expand and upgrade network connections to field offices in cooperation with DIS. Continued replacement of obsolete servers and network gear is also required to maintain normal agency services. WDFW has switched to a server leasing strategy through DIS to

Figure 1-3. The *Sierra study* helps provide IT architecture strategic direction through 2009.

ensure that servers are replaced on a regular cycle. WDFW also continues to invest in virtual servers wherever practical, to maximize the value of its physical server fleet.

- Improved desktop systems management practices

  WDFW will continue its effective strategies for replacement of desktop computing systems and remote management of desktop software, to insure that all employees have the computer tools to communicate and perform their job. The automation of desktop management and security continues to be a current need.

- New, more effective applications to support agency needs

  Modern applications, including Web-based tools, will be implemented to improve administrative business processes and replace manual methods. A few remaining legacy applications are in need of a replacement plan.

- Improved access to, and integration of data

  Public stakeholders and clients will benefit from better access to agency data resources. WDFW is currently building a completely new and improved web site to enhance the flow of information in both directions.

  Fish and wildlife resource management and enforcement needs internally would be better served by improved access to data, and by using Web-based systems and GIS tools to service users statewide. New systems and access tools such as Microsoft SharePoint will provide the necessary linkage to ensure that information is available across all programs, and data management can be extended to external partners.

- Improvements to meet robust statewide IT security initiatives

  WDFW will evaluate the impacts to staff and fiscal resources to comply with new IT security standards. The new Standards reflect industry best practices, as well as significant input from state agencies (including WDFW). The revised Standards were presented to the ISB in July 2009, and became effective in August 2009. Compliance for existing systems and IT infrastructure is required by August 2012.

C. IT Plans, Proposals, and Acquisition Process

1. Review of IT Plans, Proposals and Acquisitions

WDFW views the IT Portfolio as the blueprint for its IT planning. Proposals and acquisitions must support activities included in the Portfolio. Major systems plans and proposals are reviewed at the executive management level. Budget and acquisition proposals follow established policies and procedures set forth by DIS, OFM, and the WDFW Divisions of Financial Services and Information Technology Services within the Technology and Financial Management Program.

2. Acquisition Process

The acquisition process used by WDFW provides competition and accountability for purchases and expenditures and adheres to the provisions of the Information Technology Investment Policy. Acquisitions for small systems improvements and upgrades follow existing procedures from OFM, DIS, and the WDFW Divisions of Financial Services and Information Technology Services within the Technology and Financial Management Program. WDFW makes active use of DIS Master Agreements for technology services, GA IT contractor lists for consultant services, and has entered into a lease agreement with DIS to refresh its microcomputer fleet.

3. Adherence to Standards

WDFW adheres to state technical standards for IT. As standards change and new standards come into play, WDFW has proven a willingness and ability to change its standards to remain in compliance.

A recent example is the WDFW migration from Novell email and directory services to Microsoft system standards shared by other state agencies. In 2009 WDFW implemented Enterprise Active Directory, and Exchange/Outlook email systems, both managed by DIS.

4. Complaint and Protest Standards

WDFW adheres to state complaint and protest procedures as outlined in the IT Investment Policy and Standards documents. Prior to execution, all contracts and agreements entered into by WDFW undergo a review by the agency Contracts Office, including a review as to form by the Office of the Attorney General.

D. Overview of Infrastructure

The information that follows is a summary of WDFW's technology infrastructure for the state fiscal year ending June 30, 2010. For detailed information, please refer to section 3.

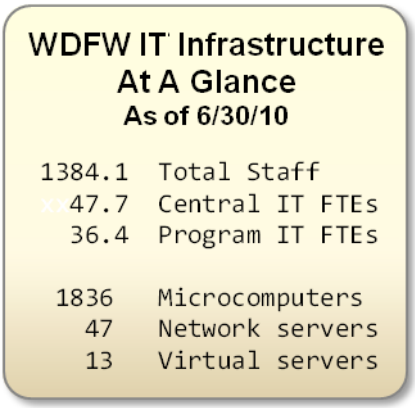


Figure 1-4. Summary of WDFW IT infrastructure.

1. Personal Computer Hardware

WDFW has 1836 systems in its microcomputer fleet. All but 100 of them are leased from the Department of Information Services (DIS). Started in 2001, the lease program has allowed WDFW to systematically replace its existing, agency-owned, systems. The leased fleet is refreshed over a 48-month cycle. Similar lease programs are in place at the Washington Departments of Transportation, Employment Security, and Social and Health Services.

Prior to the DIS lease agreement, WDFW acquired PCs via conventional purchase methods without regard to a systematic, planned replacement strategy. This piece-meal purchase practice led to great disparity among its microcomputer investment, in terms of brand, processor platform, operating system, and age of systems to support.

FY10 saw the continuation of a trend for WDFW computer users to migrate from desktop models to notebook systems. These *desktop replacement* systems make good business sense for employees who spend much of their time out in the field or at multiple sites during the work week.

As of June 30, 2010, notebooks accounted for 35% of the WDFW leased microcomputer total. The percentage is unchanged from FY09.

2. Personal Computer Software

a. Operating System

WDFW has completed its transition to *Microsoft Windows Vista Enterprise* as its agency microcomputer operating system standard. As of July 31, 2010, all agency leased microcomputer systems have been migrated to Vista Enterprise. During FY10, the remaining statewide district offices and remote staff locations were converted to Vista Enterprise.

b. Office Productivity

WDFW has transitioned to *Microsoft Office Enterprise 2007* as its agency standard office productivity suite. The Department has entered into a Microsoft Enterprise Licensing agreement, allowing Office 2007 to be used on all its microcomputers.

As of July 31, 2010, all agency microcomputer systems have been migrated to Office 2007 Enterprise. During FY10, the remaining statewide district offices and remote staff locations were converted to *Microsoft Office Enterprise 2007*.

c. Email and Directory Services

WDFW uses DIS-managed email and Enterprise Active Directory services, having migrated all agency staff from the former Novell GroupWise and e-Directory to Microsoft Exchange and Active Directory in FY09.

Agency staff use Microsoft Outlook 2007 as the desktop email client. Outlook WebAccess, hosted by the Department of Information Services (DIS) is also an option for remote connection to email.

d. Other Standards

Other WDFW PC software standards include:

- *Microsoft Forefront* (anti-malware solution, replacing Frisk Software's *F-Prot Antivirus for Windows)*
- *Microsoft Internet Explorer* (web browser)
- *WinZip* (file archival/extraction utility)
- The WDFW software inventory contains approximately 130 software titles classified as agency standard, with another 300 titles in limited or special use areas.

3. Networks

Including direct and virtual private network connections, nearly all employees -- as well as some temporary staff -- utilize some form of agency network access.

a. Agency Network

The WDFW network connects personnel in 17 facilities (six buildings in the greater Olympia area, the six Regional Office headquarters locations, three ancillary regional HQ sites, and two District Offices).

Working with NoaNet, private vendors, and DIS, WDFW has implemented a high speed integrated Ethernet Local Area Network (LAN) connecting the Regional Offices to the Olympia LAN.

High-speed network links are now in place at all WDFW Regional Offices. The DIS-managed network connections at these locations offer 100 mbps bandwidth. WDFW will continue to evaluate and upgrade network connections to other field offices as technology evolves.

b. VPN

The WDFW Virtual Private Network (VPN) allows remote staff to safely connect to the agency WAN via the Internet on an as-needed basis. Sufficient licenses exist to allow all agency staff to utilize the VPN. Nearly 400 agency field staff use the VPN as their primary method to access the WDFW Intranet.

c. Servers

WDFW is part of the statewide forest using Enterprise Active Directory services, and is also using the DIS Managed Exchange email service. These changes have reduced the need for a number of WDFW authentication and email servers. *Microsoft Windows Server* is the agency file and print server standard, supporting agency users connected to the WDFW LAN.

Microsoft SQL Server is the agency database server standard. The agency also operates a Sybase server for a small number of legacy applications.

Novell SuSE Enterprise and *Redhat Enterprise Linux* are the agency Linux server standards. Existing *Sun Solaris Unix* servers are being phased out in favor of Linux, or in some cases, Microsoft Windows Server. Linux/ Unix servers are primarily used by WDFW as web servers and as the web services tier for web-enabled applications.

The total number of physical servers currently in use at WDFW is 46. This does not include 13 licenses for virtual server products from VMWare and Microsoft.

4. Staffing

In FY10, WDFW devoted 84.1 full-time equivalents (FTEs) to the administration, development and support of its IT investment. Of this number, 36.4 FTEs (43.3%) are organizationally located in resource programs and divisions across the agency.

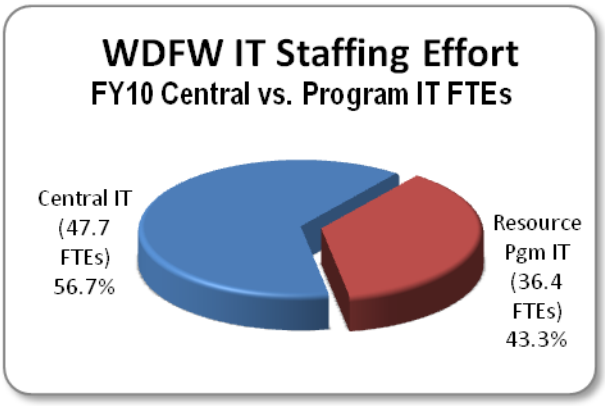


Figure 1-5. 43.3% of WDFW IT staff are located outside of the central IT Services organization.

The remaining 47.7 FTEs (56.7%) are assigned to the WDFW central Information Technology Services (ITS) office within the Operations umbrella of the Office of the Director. The central IT staffing total includes 2.1 non-permanent FTEs that assisted with the Microsoft Vista Migration project in FY10 (*see also section 1.D.2*).

Organizationally, ITS is composed of seven work units: Administration; Applications, Standards and Policy; End User Support (EUS); Geographic Information Systems (GIS); Data Management; Project Management; and Systems Administration.

- *Administration* (2 FTEs) - This unit provides overall administration and support of agency IT. The positions include the Secretary and agency Chief Information Officer (CIO).

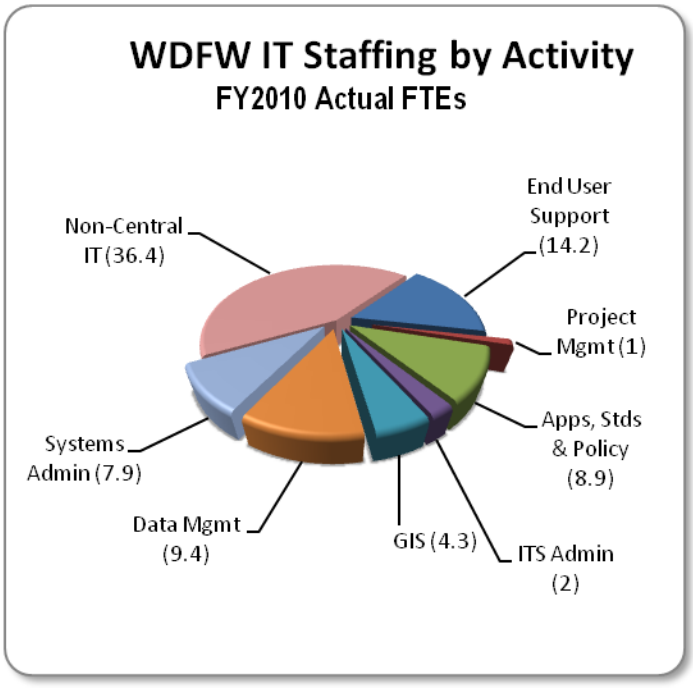


Figure 1-6. WDFW information technology covers a wide array of functions and activities.

- *Applications, Standards and Policy* (8.9 FTEs) – Functions performed by this unit include unit management; development, maintenance, and oversight of new and existing applications; database administration; data administration; and IT security and data policy development.

- *Data Management* (9.4 FTEs) – This unit includes the functions of the agency data custodian/unit manager, resource statistics, HPA data custodian, license data manager, fish ticket scanning support, financial services IT support, and the data entry section.

- *End User Support* (14.2 FTEs) – This unit maintains and supports microcomputers and office productivity software statewide. Functions performed within EUS include unit administration, specialized support and audit, Eastern WA support, Olympia north campus support, support desk manager, and program support/Help Desk staff. The EUS staffing figure includes 2.1 FTE effort from non-permanent staff assigned to the Microsoft migration project.

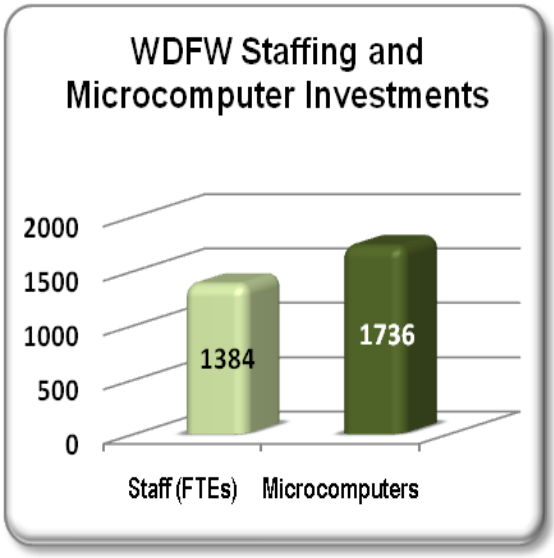


Figure 1-7. WDFW End User Support staff support all 1700+ microcomputers and the associated software, printers, and peripherals used by nearly 1400 employees.

- *Geographic Information Systems* (4.3 FTEs) – This unit performs agency "corporate data" GIS data administration, data access application development and maintenance, and fulfillment of corporate data requests from the public.

- *Project Management* (1 FTE) – This position provides oversight of major development projects, such as the Hydraulic Permit Management System (HPMS) and the Contracts and Projects System (CAPS). More information about these applications is located in section 3G.

- *Systems Administration* (7.9 FTEs) – This unit provides Wide Area Network (WAN) and telco administration and support for the agency. Functions performed include unit management, server and network backup administration, email administration, network/WAN admin-

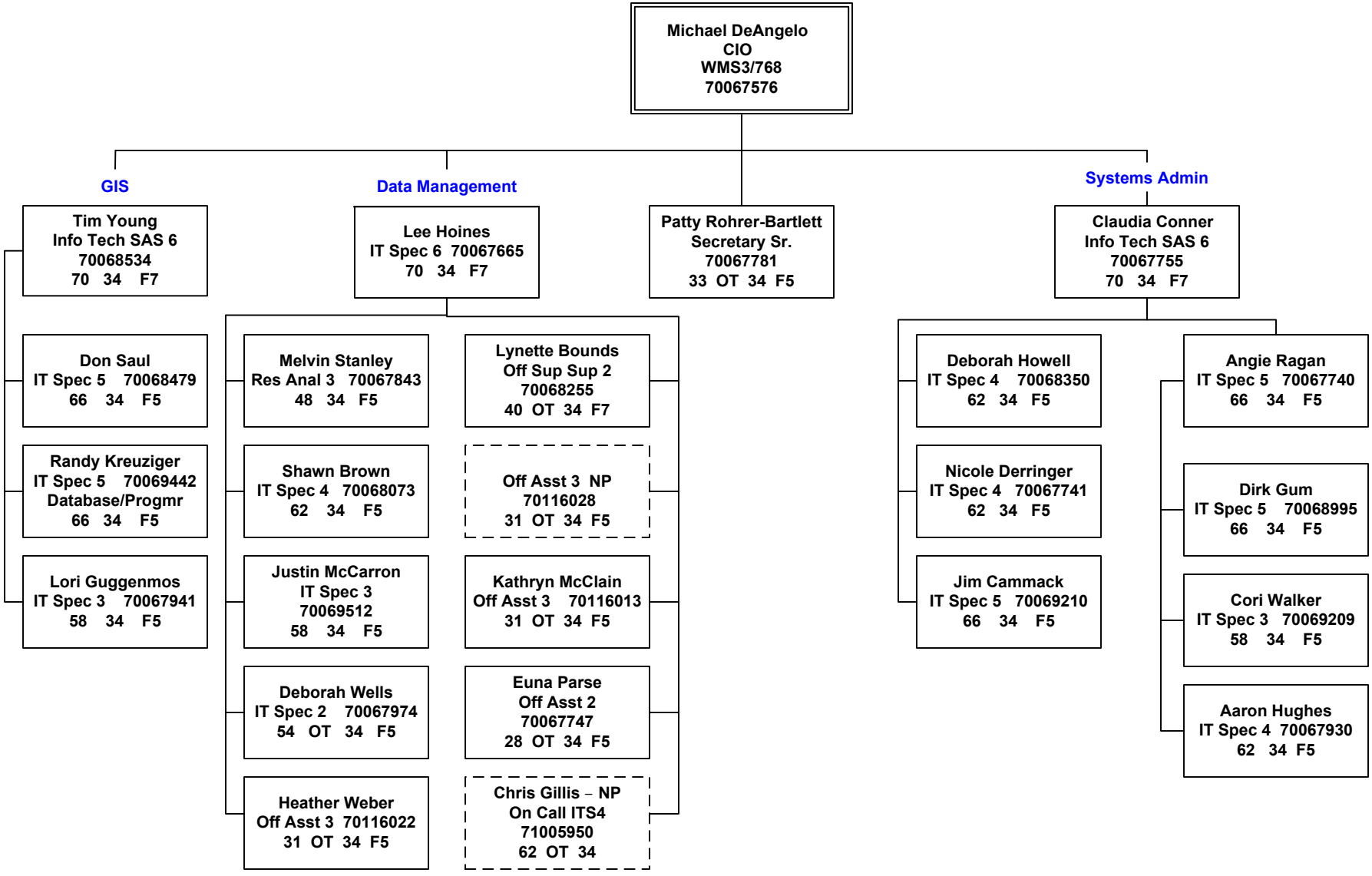
istration, VPN and Windows server administration, and telco/voicemail/cabling support.

Organizational charts for the Information Technology Services unit appear on the next two pages.

Figure 1-8. WDFW IT Services logo.

Department of Fish and Wildlife

Director's Office
Technology and Financial Management Program
Information Technology
August 2010



Department of Fish and Wildlife

Director's Office

Technology and Financial Management Program

Information Technology

August 2010

Michael DeAngelo
CIO
WMS3/768
70067576

End User Support | **Project Management** | **Applications Standards & Policy**

Shandi Dollman
Info Tech SAS 6
70067717
70 34 F7

Brian Fairley
Info Tech SAS 6
Pro Mgr 70067623
70 34 F5

Mike Keeling
WMS 2
70069186
614 34

Scott Kissel
IT Spec 5 70068288
Help Desk
66 34 F7

Vacant
IT Spec 3 70067934
58 OT 34 F5

Non Perm
IT Trainee
71013411
27 OT 34 F5

Non Perm
IT Spec 1
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48 OT F5 34

Vacant
IT Spec 4 70067780
62 34 F5

Pablo Isola
IT Spec 4 70068396
Wildlife
62 34 F5

Jeff Parkhurst
IT Spec 5 70069488
66 34 F5

Daniel Annis
IT Spec 4 70067593
Enforcement
62 34 F5

Donna Halliday
IT Spec 4 70069441
600 Cap/Lacey
62 34 F5

Mike Justice
IT Spec 4 70068993
62 34 F5
Reg 1

Larry Brewington
IT Spec 4 70068160
Regions 2, 3
62 13 F7

Randy Butler
IT Spec 4 70067638
North Region 6
62 16 F5

Craig Parse
IT Spec 3 70068338
User Support
58 OT 34 F5

Jason McKee
Info Tech SAS 6
71010278
70 34 F5

Karen Watson
IT Spec 5 70068054
Data Admin
66 34 F5

Nancy Rosenthal
IT Spec 3 70067557
Programmer
58 34 F5

Non Perm
IT Spec 1
71017767
48 34 F5

Brett McCarron
Info Tech SAS 6
70069438
70 34 F5

Rob Pearce
IT Spec 5 70068112
Database Admin
66 34 F5

Bernie Triance
IT Spec 5 70069322
62 34 F5

Doug Goodart
IT Spec 4 70067962
Applicaton Dev
62 34 F5

Kim Rader
IT Spec 5 71012417
66 34 F5

E. Analysis

1. Agency IT Staffing Effort

The state fiscal year 2010 (FY10) staffing authority for WDFW was 1384.1 full-time equivalents (FTEs).

The total FY10 agency IT staffing effort of 84.1 FTEs accounted for 6.1% of WDFW's total FY10 staffing authority, compared to 5.7% in FY09.

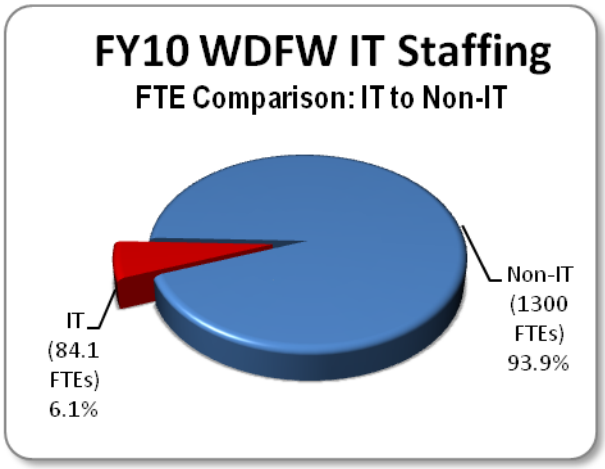

Figure 1-9. Employees performing IT functions accounted for 6.1% of WDFW's total staffing effort in FY10.

The projected FY11 agency IT staffing level is 80.3 FTEs, a decrease of 2.4 FTEs for central IT Services (ITS) and 1.4 FTEs in resource program (e.g. distributed or non-central) IT activity. The projected ITS staffing decrease is due to the effects of furloughs, delays in filling vacant positions as a result of retirements, and staff reductions in End User Support.

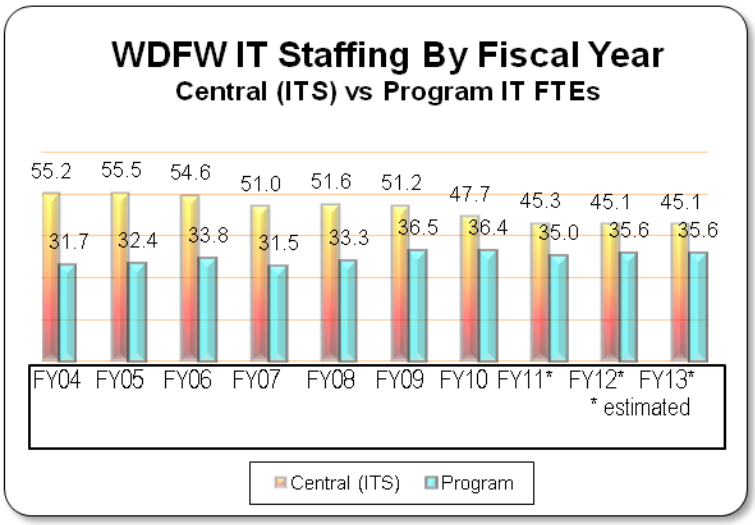

Figure 1-10. WDFW's central IT staffing (yellow/red shading) is expected to decrease between FY04 and FY13, while IT staffing in the resource programs (cyan) is projected to increase over the same period.

Figure 1-10 illustrates that central IT staffing levels are projected to decline by 10 FTEs over the 10-year period FY2004-13. Program (distributed) IT staffing levels are projected to increase by nearly 4 FTEs during the same period.

2. Agency IT Training

At the agency level, FY10 WDFW professional development (training) costs for all employees were $209,000. This equates to an average expenditure of $151 per agency FTE.

FY10 training costs (exclusive of travel) for IT staff were approximately $13,150 during the same period. This amounts to roughly $156 per IT FTE.

The IT portion accounts for 6.3% of total FY10 agency training expenditures, as compared to 1.7% in FY09.

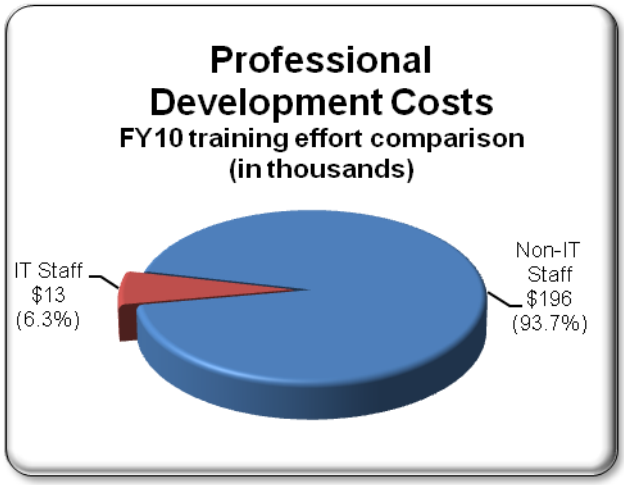

Figure 1-11. Training for IT staff was 6.3% of total agency FY10 employee training and professional development expenditures.

Professional development costs include a mix of hands-on classroom training, conferences and seminars from private sector organizations, and online sources, such as the *e-Learning* training provided through the state Department of Personnel.

Training costs are expected to rise in FY11 and beyond, as IT staff receive training on Microsoft networking and information security products.

3. Hardware and Software Purchases

WDFW spent $2.07 million on IT software and hardware purchases, maintenance and leases in FY10. Figure 1-12 illustrates the expenditures by major category.

Hardware expenditures include systems and peripherals such as printers, scanners, and capture devices (including portable data loggers).

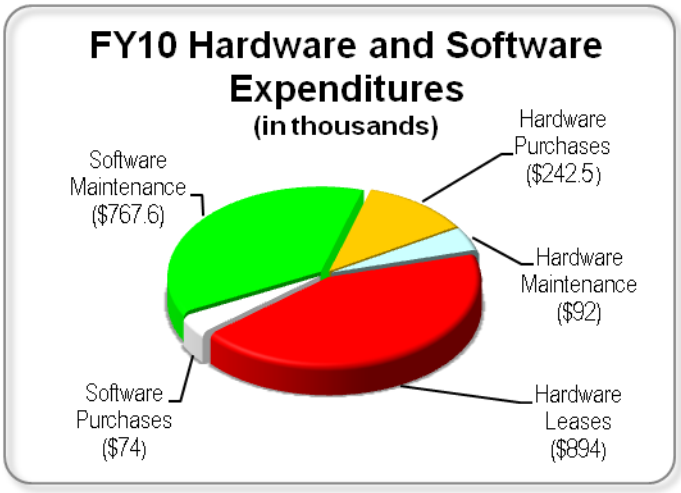

Figure 1-12. WDFW FY10 hardware and software expenditures by category, including PCs and servers leased from DIS.

Lease payments of $893,000 to the Department of Information Services (DIS) are for continuation of the WDFW microcomputer and server refresh program. Lease costs are expected to remain fairly constant in future fiscal periods, so long as initial acquisition costs remain stable.

FY10 purchases of software and software maintenance totals include annual enterprise software licensing and maintenance for Microsoft Office 2007, Active Directory, and Forefront security products – all part of the Microsoft Migration initiative funded by the statewide Technology Pool.

4. Total Agency IT Expenditures

Agency IT expenditures totaled $13,714,600 for the fiscal year ending June 30, 2010 (FY10). This equates to 8.3% of the $165,120,700 FY10 agency operating budget.

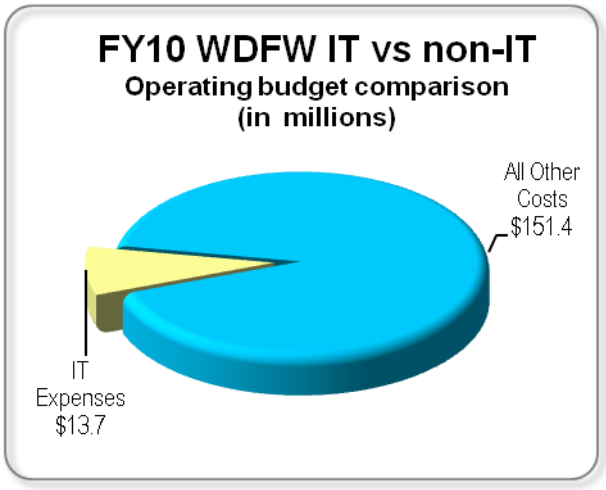

Figure 1-13. FY10 WDFW IT costs total 8.3% of the $165.1 million agency operating budget.

The FY10 WDFW IT effort was down slightly from FY09 (8.4% of the $174.5 million agency operating budget), primarily due to reductions in force and vacancies in unfilled positions resulting from reductions in the state general fund budget.

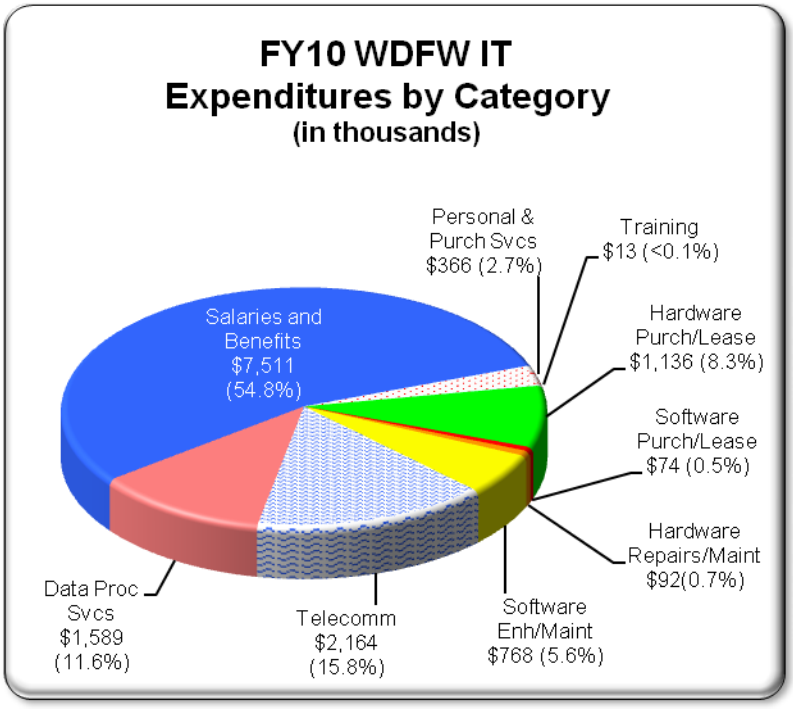

Figure 1-14. FY10 WDFW IT expenditure breakdown by major category.

The four largest FY10 IT expenditure components were salaries and benefits (54.8%); telecommunications (15.8%); data processing services (11.6%) and hardware purchases and leases (8.3%). Telecomm charges include landline and cellular telephone service, as well as leased data line and Internet service provider charges. Data processing services

include charges paid to DIS for WDFW's use of the statewide financial and human resources systems.

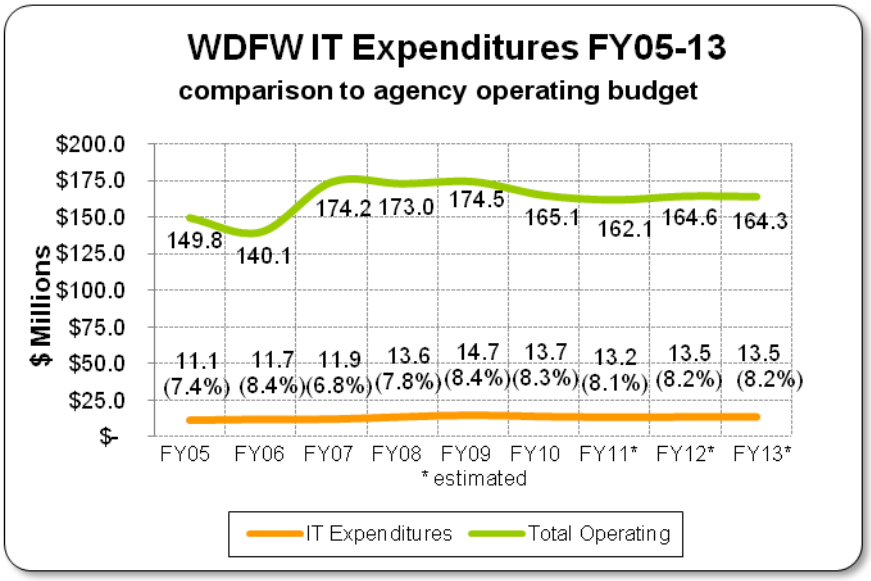

Figure 1-15. WDFW IT spending comparison to total agency operating budget for fiscal years 2005 through 2013 *(FYs 11-13 estimated).*

As shown in Figure 1-15, agency IT spending (including central and resource program IT efforts) has historically ranged from 6.8% to 8.4% of total agency operating costs.

F. Challenges and Opportunities

WDFW has opportunities to meet challenges in information technology with innovative solutions.

Figure 1-16. WDFW Enforcement officers release a radio collar-wearing cougar at a remote Eastern Washington location.

- Dealing with a geographically dispersed organization is a significant technology problem, and can be addressed by enhancing and expanding web-based methods and applications. The integration and expansion of remote access technologies, including VPN, cellular data, and wireless, can make a significant difference in dealing with geographic span, but include support and security challenges.

- The agency is still faced with a significant task of upgrading administrative business systems in many areas. WDFW continues to exploit new web technologies, and the wide-ranging e-government initiatives happening in other state agencies. WDFW has the opportunity to make a significant contribution to the e-government solutions in Washington.

- Providing adequate IT support and expertise for WDFW given the rapidity of technological changes, limited fiscal resources, and the large number of distributed Department offices is a challenge. During FY10, IT staff were taxed to the limits of their ability in assisting users who were migrated to Active Directory, Microsoft Outlook, Vista, and Office 2007.

- Completing the desktop software migration for approximately 400 remote users was a major accomplishment for FY10. This will benefit WDFW in the long term by allowing it to be more closely aligned with other agencies. Some efficiencies in user support may be realized from the new Microsoft Configuration Manager support tools.

G. Solutions: Current and Future IT Investments

1. Current IT Investments

a. Capital Programs Management

WDFW operates a fleet of over 1,000 vehicles and assorted heavy equipment, and has real property assets valued at over $2 billion. The current approach of using VMTS (see sections 3.G.8 and 3.H.14), Voyager, EPIC, and manual accounting systems may not meet the Governor's executive order 05-01 or the recommendations of a Capital Programs review process. WDFW selected TERO Consulting as the vendor to provide Asset and Fleet Management services. WDFW continued to utilize the system for fleet management, facility management, and work orders in FY10, but budget reductions has hampered enhancement efforts.

b. Recreational License Sales System

The agency currently sells recreational licenses to the public with an automated license sales system known as WILD (Washington Interactive Licensing Database). ActiveOutdoors is the current system vendor. The WILD system development and operating costs are funded through transaction fees paid by system users. The main license sales and associated functions are in production. The system changes and grows in response to Legislative mandates and business needs.

c. Information Technology Strategic Direction – IT Systems Architecture

WDFW received legislative funding of $1.38M for a migration to Microsoft Active Directory and Exchange email. These changes have brought the agency into alignment with the rest of state government. During FY10, WDFW completed the initiative by migrating systems for remote users from Windows 2000 and XP to Windows Vista, bringing all agency staff into the standard new systems and management tools. Microsoft Office 2007 was also deployed successfully. A post-implementation summary for this project is contained in Section 6.

d. Commercial Licenses and Fish Tickets

WDFW is pursuing a replacement of the legacy LIFT application, used to manage commercial licenses and harvest data. The current LIFT application is built with PowerBuilder client and Sybase database architecture. The project will replace these with a SQLServer database and web-enabled application tools. This project is staffed by internal

resources, and recent reductions have slowed progress. Work continued on the new database and some high priority modules in FY10.

e. Enforcement Program Technology

To increase efficiency and achieve program accreditation, WDFW Enforcement has initiated projects to implement new technology and systems. In FY10, a Radio over IP system pilot project was implemented. This has allowed dispatchers from Olympia to use the WDFW data network to make radio calls to officers in eastern Washington. Enforcement will also pilot the use of an enforcement Records Management System, enabling all enforcement activities and records to be managed in a central database.

2. Planned IT Investments

a. Capital Programs Management

WDFW expects to continue the automation of business functions in Capital Programs in FY2011 and beyond. The current approach is based on guidance from the Capital Program Action Plan (Sept. 1, 2007), available from the WDFW Capital Programs office. Continued budget and staff reductions may place efforts in this area on hold for FY11.

b. Recreational Licenses

The operation of the WILD system will continue through the 2009-11 period. Continued demand for changes will make WILD a dynamic system requiring constant attention for the remaining life of the system. The contract with ActiveOutdoors runs through January 2013.

c. Licenses and Fish Tickets (LIFT)

The LIFT System, built in the 99-01 biennium, manages commercial licenses and fish tickets for commercial fishing. The client/server base (PowerBuilder) of LIFT is not included in the agency's architecture direction and is not web enabled. Work was initiated in the 2005-07 biennium and is expected to continue through FY11. No legislative funding request is currently planned. Given the mission critical status of LIFT, an action plan using internal developer resources continues to be the main option for an incremental replacement of LIFT. Internal developer staff are limited and recent staff reductions will have an impact on the schedule.

d. Enforcement Program Technology

During FY11, Enforcement expects to extend the Radio over IP system to new geographic areas, complete the Records Management System, and also to implement Computer Aided Dispatch capability for all officers.

e. Integrated Project Review and Mitigation Tools

The Integrated Project Review and Mitigation Tools project (IPRMT) project is sponsored by the Governor's Office of Regulatory Assistance. In FY10 limited implementation and testing continued. Plans in FY11 include system expansion, IT system integration, and interagency permit application review. Lack of funding may limit work in FY11. The need for a major revision of the WDFW Hydraulic Project Management System could arise if the IRPMT project reaches a production status.

f. Statewide GIS Hydro Data Integration

WDFW, Ecology, and DNR have major business needs for GIS data layers and analysis, in particular a GIS layer representing surface water or hydro. While the business needs are interdependent, the three agencies, for historical reasons, have three different GIS hydro datasets. A pilot effort to integrate all of the business functions in a shared hydro layer is expected to be completed in FY11, laying the foundation for a single common hydro layer. Funding to create the shared hydro layer has not been obtained, but efforts continue, most recently in the discussions for natural resource agency cooperation.

g. Increased IT Security Requirements

WDFW is seeking additional funding to comply with new statewide IT security policies that contain more specific and detailed requirements. WDFW can achieve partial compliance with existing resources, but will require additional funding to meet the August 2012 compliance objectives specified in ISB Policy 401-S4.

H. Prioritization Process

The Executive Management Team (EMT) functions as the department's IT policy setting body. The agency Information Systems Manager, working with the Deputy Director-Operations, prepares issues for consideration by the EMT. The Information Technology Technical Committee, comprised of the top information systems experts in the agency, provides technical advice and staff work for the EMT.

The Corporate Data Oversight Committee (CDOC) is responsible for the coordination of natural resource data across program lines. Membership is composed of the agency IT Manager (CIO) and the Chief Scientists for the Fish, Wildlife, and Habitat programs. CDOC promotes integrated data management in support of science-based management strategy.

Figure 1-17 provides a pictorial representation of the various WDFW committees and their roles in establishing, reviewing, and prioritizing agency IT policy.

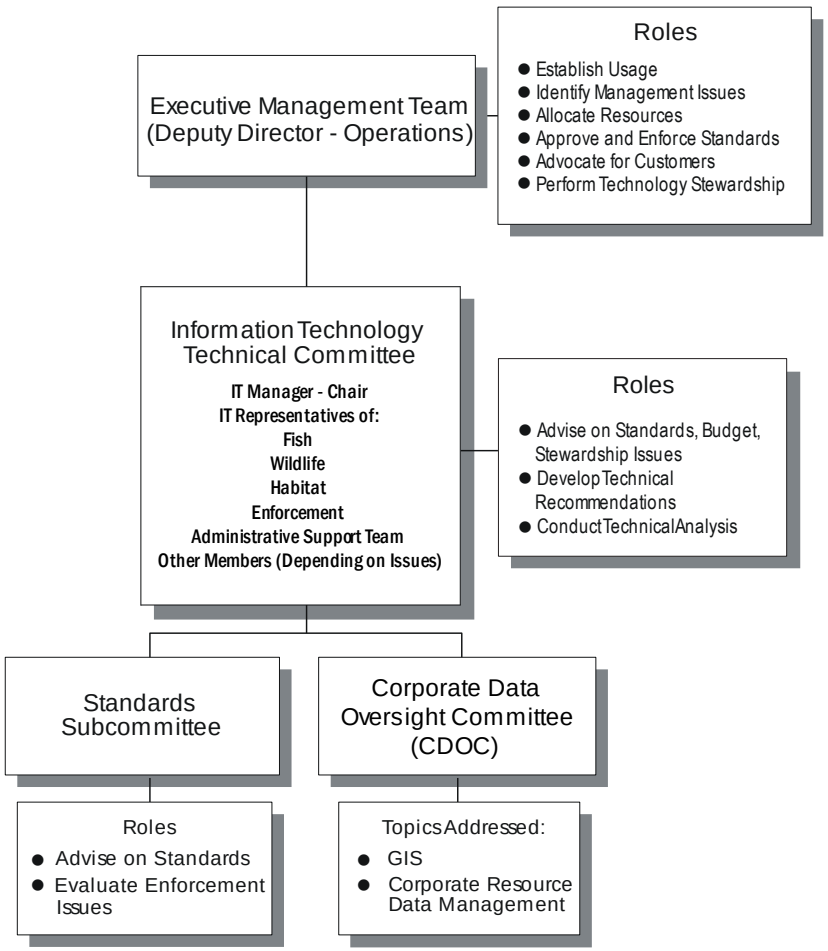

Figure 1-17. A number of committees help shape WDFW IT policy.

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2. Agency Strategic Business Plan

The WDFW published its 2009-2015 Strategic Plan in June, 2008. The document is incorporated herein as Appendix A. It is also available as a separate, online document at http://wdfw.wa.gov/about/strategic_plan.

A. Introduction

The Washington Department of Fish and Wildlife (WDFW) is dedicated to preserving, protecting, perpetuating and managing the state's fish and wildlife resources. We do this by applying an underlying conservation ethic to our work while providing commercial and recreational opportunities that result in economic benefits to local communities and the citizens of Washington state. Our much-treasured quality of life in the Pacific Northwest depends on healthy and thriving fish and wildlife populations. As the steward of these resources, WDFW is committed to continue building a solid and sustainable foundation that supports both resource and human needs now and in the future. To fulfill this commitment and achieve our mission, WDFW will continue to:

- Identify, seek funding and fix ailing facilities and infrastructure.
- Focus on developing partnerships with other agencies and organizations, tribes and citizens that make us effective and efficient.
- Educate youth and adults to foster a stewardship ethic toward fish and wildlife.
- Seek policy support and stable funding to manage the increased demands placed on fish and wildlife resources in the state.

To help achieve these goals in increasingly challenging times, the department has undergone several administrative changes. The Washington Fish and Wildlife Commission is providing more oversight and playing a key role in setting department policy and direction.

B. Mission Statement

The Washington Department of Fish and Wildlife serves Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable and wildlife-related recreational and commercial opportunities.

C. Legislative Declaration

As defined in Chapter 77 RCW, WDFW is Washington's principal agency on species protection and conservation.

Legislative mandate (RCW 77.04.012):
"Wildlife, fish, and shellfish are the property of the state. The commission, director, and the department shall preserve, protect, perpetuate, and manage the wildlife and food fish, game fish, and shellfish in state waters and offshore waters.

The department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. In a manner consistent with this goal, the department shall seek to maintain the economic well-being and stability of the fishing industry in the state.

The department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state.

The commission may authorize the taking of wildlife, food fish, game fish, and shellfish only at times or places, or in manners or quantities, as in the judgment of the commission does not impair the supply of these resources.

The commission shall attempt to maximize the public recreational game fishing and hunting opportunities of all citizens, including juvenile, disabled, and senior citizens.

Recognizing that the management of our state wildlife, food fish, game fish, and shellfish resources depends heavily on the assistance of volunteers, the department shall work cooperatively with volunteer groups and individuals to achieve the goals of this title to the greatest extent possible.

Nothing in this title shall be construed to infringe on the right of a private property owner to control the owner's private property."

D. Department Goals and Objectives

To achieve its mission, WDFW will continue to focus its activities on the following six goals *(for detailed information, including specific activities, strategies, and performance measures, please refer to pages 13-36 of the WDFW* 2009-2015 *Strategic Plan)*:

Goal I: Fish and Wildlife

Achieve healthy, diverse and sustainable fish and wildlife populations.

- Protect and restore wild fish populations.
- Protect state waters by managing aquatic invasive species.
- Protect and perpetuate wildlife species through sound wildlife management.
- Protect and restore habitat and ecosystem functions.
- Improve regulatory permitting processes and outcomes.

Goal II: Public Benefit

Ensure sustainable fish and wildlife opportunities for social and economic benefit.

- Protect and promote commercial and recreational wildlife-related opportunities.

Goal III: Funding

Ensure effective use of current and future financial resources in order to meet the needs of the state's fish and wildlife resource for the benefit of the public.

- Continue the Capital Project Improvement Process.
- Stabilize the Wildlife Account

Goal IV: Outreach

Implement processes that produce sound and professional decisions, cultivate public involvement and build public confidence and agency credibility.

- Improve public involvement and appreciation of fish and wildlife.

Goal V: Science

Promote development and responsible use of sound, objective science to inform decision-making.

- Use the best-available science.

Goal VI: Employee Competence

Create an environment that nurtures professionalism, accountability, enthusiasm and dedication in order to attract, develop and retain a workforce that can successfully carry out the mandate of the department.

- Hire and promote the best candidates.
- Provide a safe and healthful work environment.

Figure 2-1. WDFW Enforcement Chief Bruce Bjork (left) presents IT specialist Dan Annis with the *Chief's Coin*. Bjork created the award to show appreciation for exemplary work or special achievements.

(Photo credit: Jeff Parkhurst)

3. Agency Technology Infrastructure

A. Current and Projected IT Budget

The IT expense and budget figures shown here reflect the entire agency, not just the Information Technology Services division within the Office of the Director – Operations. The amounts shown are reflected as of June 30 of the applicable fiscal year, unless otherwise noted.

FY08-10 totals are actuals, rounded to the nearest hundred; FY11-13 figures are estimated.

Reporting Period	Total Agency IT Expenditures	Hardware Purchases and/or Leases	Software Purchases and/or Leases	Hardware Repairs and Maintenance	Software Enhancements and Maintenance
FY08 (Actual)	$13,554,600	$1,407,800	$193,200	$221,900	$667,600
FY09 (Actual)	$14,721,800	$1,642,400	$120,100	$113,600	$851,800
FY10 (Actual)	$13,714,600	$1,136,300	$74,000	$92,400	$767,600
FY11 (Projected)	13,202,000	$1,200,000	$120,000	$100,000	$700,000
FY12 (Projected)	13,491,600	$1,200,000	$120,000	$100,000	$700,000
FY13 (Projected)	13,490,000	$1,200,000	$120,000	$100,000	$700,000

Reporting Period	Telecommunications (Object EB, less GA Mail)	Data Processing Services (Object EL)	Other Major IT Expenses (Purpose)
FY08 (Actual)	$2,305,700	$1,159,400	None
FY09 (Actual)	$2,681,800	$1,395,000	None
FY10 (Actual)	$2,164,200	$1,589,300	None
FY11 (Projected)	$2,150,000	$1,585,000	None
FY12 (Projected)	$2,155,000	$1,600,000	None
FY13 (Projected)	$2,160,000	$1,600,000	None

B. IT Personnel

The information below is as of the state fiscal year ending June 30, 2010 (FY10); FY11-13 figures are estimated.

Reporting Period	Total Agency IT FTEs (includes WMS positions)	Salaries and Benefits	Personal and Purchased Services	Professional Development of IT Staff
FY08 (Actual)	84.9	$7,192,800	$392,000	$14,200
FY09 (Actual)	87.7	$7,624,900	$288,000	$4,200
FY10 (Actual)	84.1	$7,511,100	$366,500	$13,200
FY11 (Projected)	80.3	$6,987,000	$350,000	$10,000
FY12 (Projected)	80.8	$7,256,600	$350,000	$10,000
FY13 (Projected)	80.8	$7,250,000	$350,000	$10,000

C. Personal and Workgroup Computing

The information below is as of the state fiscal year ending June 30, 2010 (FY10); FY11-13 figures are estimated.

1. Personal Computers

Reporting Period	Total Agency FTEs	Total number of PCs (excludes servers)	Planned number of PC replacements next fiscal year	Agency intended refresh cycle (in months)	PCs donated to schools in last 12 months
FY08 (Actual)	1,551.0	1650	450	42	219
FY09 (Actual)	1,537.9	1634	410	48	398
FY10 (Actual)	1,384.1	1836	651	48	657
FY11 (Projected)	1,387.7	1836	434	48	434
FY12 (Projected)	1,381.1	1836	434	48	434
FY13 (Projected)	1,387.1	1836	434	48	434

2. Servers

Reporting Period	Total number of servers	Number of servers to replace next fiscal year	Number of servers to add next fiscal year	Factors driving server acquisition strategy
FY08 (Actual)	60	-26	3	Server consolidation/replacement, Implement Sierra architectural study recommendations
FY09 (Actual)	46	3	0	Server consolidation/replacement, new applications, Microsoft Migration
FY10 (Actual)	47	3	0	Server consolidation/replacement, new applications, Microsoft Migration
FY11 (Projected)	42	3	0	Server consolidation/replacement, new applications
FY12 (Projected)	42	3	0	Server consolidation/replacement, new applications
FY13 (Projected)	42	3	0	Server consolidation/replacement, new applications

3. Network Connectivity

Reporting Period	% Agency staff with *Inside Washington* access	Agency primary network operating system
FY08 (Actual)	74% (1150/1,551 users)	Novell NetWare
FY09 (Actual)	75% (1150/1,537.9 users)	Microsoft Enterprise Active Directory, Windows Server
FY10 (Actual)	83% (1150/1,384.1 users)	Microsoft Enterprise Active Directory, Windows Server
FY11 (Projected)	83% (1150/1,387.7 users)	Microsoft Enterprise Active Directory, Windows Server
FY12 (Projected)	83% (1150/1,381.1 users)	Microsoft Enterprise Active Directory, Windows Server
FY13 (Projected)	83% (1150/1,387.1 users)	Microsoft Enterprise Active Directory, Windows Server

4. Desktop Office Suite

Reporting Period	Primary desktop office product suite	If not XML enabled, do you plan to be within 12 months? (yes/no)
FY08 (Actual)	Microsoft Office 2000/2003 Professional	Yes, but not Microsoft DOCX (Open XML) format
FY09 (Actual)	Microsoft Office 2007 Professional	Yes
FY10 (Actual)	Microsoft Office 2007 Professional	Yes
FY11 (Projected)	Microsoft Office 2007 Professional	Yes
FY12 (Projected)	Microsoft Office 2010 Professional	Yes
FY13 (Projected)	Microsoft Office 2010 Professional	Yes

Category Descriptions

To prepare the information appearing in sections 3.A through 3.C (above), WDFW staff used the following definitions, found in the *Information Technology Portfolio Management Standards* document, supplied by DIS:

- Hardware purchase and/or lease - Purchase or lease payments for machines, devices, and transmission facilities used in information processing, such as servers, routers, personal computers, laptops, terminals, personal digital assistants, printers, and cables. Do not include multi-purpose machines that are predominately used as copiers.

- Software purchase and/or lease - Purchase or lease payments for the object code version of computer programs and any related documentation, and/or licenses for use of software products (e.g. Microsoft Select Agreement). Software also means the source code version, where provided by vendor.

- Hardware repairs and maintenance - Payments made to external providers for repairs, preventive maintenance, and/or support for hardware.

- Software enhancements and maintenance - Payments made to external providers for enhancements, maintenance, and/or support for software.

- Telecommunications - Telecommunications services and equipment for voice, including telephones and local service (e.g. Centrex, PBX, voice mail, IVR) and long distance (SCAN, 800 number), wireless (cellular phones, pagers); videoconferencing services and equipment; and telecommunications services and equipment for data (e.g. modems, routers, gateways, transport, Internet).

  Note: Agency financial reports also include freight in this category. Freight costs were excluded when identified at the sub-subobject level (i.e., "EB 0004 GA Consolidated Mail" payments were excluded from the Telecommunications total).

- Data processing/information technology services - Payments made to a third party (e.g. DIS) for services that assist the agency in the electronic capture, collection, storage, manipulation, transmission, retrieval, presentation, and distribution of information in the form of data, text, or image, and/or facilities management of agency equipment.

- Other - IT resources or special projects that may not be captured in the categories listed here.

- Agency IT FTE - Total number of staff in IT job classifications. Includes other staff (e.g. WMS) whose responsibilities are mostly IT-related.

- Salaries and benefits - Total salaries and benefits for agency IT FTEs.

- Personal and Purchased Services - Personal Services are professional or other technical expertise provided by a consultant to accomplish a specific study, project, task, or other work statement. Purchased Services are provided by a vendor to accomplish routine, continuing, and necessary functions such as data entry, scanning and indexing, programming services and analysis. Do not include hardware and software repairs and maintenance in this category.

- Technical and professional development of IT staff - Tuition/fees, travel, per diem and materials for classes, seminars, conferences, and online courses that contribute to the development of agency IT personnel.

  NOTE: WDFW did not include travel and per diem costs associated with training, since they are accounted for separately by the state financial reporting system. Travel costs, where significant, are reported under "other major expenses" in 3.A.

D. Geographic Information System (GIS) Resources

The information below applies to the state fiscal year ending June 30, 2010 (FY10). See also *Significant GIS Datasets*, incorporated herein as Appendix B.

	1. Number of GIS Staff (FTEs)	Indicate here if included in 3.B.1 "Total Agency IT FTEs"
Central Support	4	Yes
Program Area Support	17	Yes

	2. GIS Software
Vendor Name	ESRI
Product Name	Arc/Info (concurrent)
Number of Licenses	33

Vendor Name	ESRI
Product Name	ArcGIS Server Basic Enterprise/SdeServer
Number of Licenses	2 production, 1 staging

Vendor Name	ESRI
Product Name	ArcGIS Server Standard Enterprise/ArcIMS
Number of Licenses	2 production, 1 staging

Vendor Name	ESRI
Product Name	Arcview3 for MS Windows
Number of Licenses	8

Vendor Name	ESRI
Product Name	Arcview ArcGIS (standalone)
Number of Licenses	54

Vendor Name	ESRI
Product Name	Arcview ArcGIS (concurrent)
Number of Licenses	22

Vendor Name	ESRI
Product Name	Spatial Analyst (standalone)
Number of Licenses	4

Vendor Name	ESRI
Product Name	Spatial Analyst (concurrent)
Number of Licenses	21

Vendor Name	ESRI
Product Name	ESRI Developer Network Subscription (standalone)
Number of Licenses	1

Vendor Name	ESRI
Product Name	Tracking Analyst (concurrent)
Number of Licenses	1

Vendor Name	ESRI
Product Name	3d Analyst (standalone)
Number of Licenses	2

Vendor Name	ESRI
Product Name	3d Analyst (concurrent)
Number of Licenses	11

Vendor Name	ESRI
Product Name	Network (concurrent)
Number of Licenses	2

Vendor Name	ESRI
Product Name	Publisher (concurrent)
Number of Licenses	1

Vendor Name	ESRI
Product Name	GeoStatistical Analyst (standalone)
Number of Licenses	1

Vendor Name	ESRI
Product Name	GeoStatistical Analyst (concurrent)
Number of Licenses	1

Vendor Name	ESRI
Product Name	ArcPad
Number of Licenses	7 user copies, 2 application builder

Vendor Name	Delorme
Product Name	Xmap Professional
Number of Licenses	137

Vendor Name	Delorme
Product Name	Xmap Editor
Number of Licenses	1

Vendor Name	Delorme
Product Name	Base Data
Number of Licenses	133

Vendor Name	Trimble
Product Name	GPS Analyst Extension for ArcGIS
Number of Licenses	1

	3. GIS Hardware
Make/Model	IBM X3850 M2
How Many	1
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes
Note	GIS Public Facing SDE/SQL Production. Also supports conventional production business systems. Being implemented.

Make/Model	IBM X3650 M2
How Many	2
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes
Note	GIS Internal SDE/SQL Production. Being implemented. GIS SDE/SQL and conventional business systems development. Being implemented.

Make/Model	Compaq/HP Proliant DL580
How Many	1
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes
Note	GIS Internal SDE/SQL Production. To be retired.

Make/Model	Compaq/HP Proliant DL380
How Many	2
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes
Note	GIS Public Facing SDE/SQL Production. Also supports conventional production business systems. To be retired. GIS SDE/SQL and conventional business systems development. To be retired.

Make/Model	IBM 3550
How Many	2
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes
Note	GIS web map servers, production

Make/Model	IBM 3650
How Many	1
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes
Note	GIS web map server, development

	4. Major GIS Application(s)
Application Name	**Description**
SalmonScape	Web application for public access to salmon related spatial information.
PSAMP	Web application for displaying seabird and waterfowl densities and related information based on seasonal surveys conducted under the Puget Sound Ambient Monitoring Program from 1992 to present.
Priority Habitats and Species Data Release System	Windows-ArcGIS based system supporting production of maps and data CDs.

Priority Habitats and Species	Database and Python scripts to support the management of priority habitats and species data entry and insuring quality control.
PHSonTheWeb	Web-based mapping application used by staff and the public to identify occurrences of priority habitats and species within a user defined project area. (in development)
SSHIAP	Salmon and Steelhead Habitat Inventory and Assessment Program. Information system that characterizes freshwater and estuary habitat conditions and distribution of salmonid stocks in Washington.
WLRIS	Washington Lakes and Rivers Information System. Information system for tracking the distribution and status of Salmon, Steelhead, and resident fish. Now maintained as ArcGIS geodatabases using out of the box editing and linear referencing tools.
ECA	Ecoregional Conservation Assessment. Information system used to evaluate biodiversity on an ecoregional scale for conservation prioritization and planning purposes for fish and wildlife resources.
RMAP	Road Management and Abandonment Planning System. A system for inventorying road conditions on WDFW managed lands to support compliance efforts with the State Forest and Fish Law.
HCP	Habitat Conservation Planning (HCP). Database and analysis tools for inventorying and assessing activities and species habitats on WDFW's Wildlife Areas. The HCP will be a long-term management plan for the conservation and protection of species that will satisfy federal requirements under the Endangered Species Act (ESA) upon approval by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.
LIS	The Land Information System (LIS) is used for tracking the location and attributes of real estate owned and/or managed by WDFW. The parcel-level data compilation of ownership boundaries and key attributes is currently in production. This process entails replacing inaccurate and inadequate legacy data (spatial and tabular) with high quality GIS representation of WDFW's estate. Some elements of the LIS data model have not yet been implemented and remain contingent upon available resources.

Application Name	Description
Wildlife DSS	Decision Support System (DSS) This initiative is driven by the Western Governor's Wildlife Council, regarding "Wildlife Corridors and Crucial Habitats" (http://www.westgov.org/index.php?option=com_content&view=article&id=123&Itemid=68) WA state is part of a tri-state pilot project, wherein participating states are to coordinate and standardize wildlife data repositories, applying common definitions for crucial habitat and wildlife corridors. The information developed will be made publically available via the internet and any interested party will be able to easily access, use and interpret the GIS-based tools. This 3 year pilot project is just getting underway.
MapSys	Windows-based application for creating seabird density maps based on Puget Sound Ambient Monitoring Program (PSAMP) aerial survey data from 1992 to present.
GoHunt	Web application for public access to hunting and outdoor recreation related spatial information.
Ortho Photo Image Service	Web-based service to provide access through Fortress and on internal WDFW network to seamless ortho photography. Service can be accessed by client side ESRI map display tools.
WSDM	Wildlife Survey Data Management System. Database and tools to support integrated management of formerly disparate species occurrence datasets. The system comprises of an enterprise versioned geodatabase and several data entry and data management applications and tools. Data from WSDM is used for conservation and species management as well used in forest practice application reviews.
Fish Passage Barrier Inventory	Database and tools to support the management of fish passage barrier surveys.
Habitat Work Schedule Image Service	Web-based service to provide access through Fortress to an Open Geospatial Consortium (OGC) compliant service and REST endpoint containing various spatial datasets used by the Habitat Work Schedule application developed by Interlocking Software.

Application Name	Description
HPMS	Hydraulic Permit Management System. Internal system that includes interactive mapping component built on ArcIMS.

	5. GIS Database(s) Environment
Vendor Name	Microsoft SQL Server
Number of applications	10 in production (salmonscape, GoHunt, PSAMP, Orthophoto Image Service, habitat work schedule image service, wsdm, land information system, geolib, geowarehouse)

	6. Critical GIS Datasets
Name(s)	See Appendix B

E. Security and Disaster Recovery/Business Resumption Plans

1. IT Security Plan

a. The annual security compliance certification, due each August 31 per ISB IT Security Policy and Standards, is included in Section 6 of this Portfolio. The certification document has also been submitted to the Information Services Board (ISB). The verification indicates review and acceptance of agency security processes, procedures, and practices as well as updates to them since the last review.

b. The IT Security Plan is included in this Portfolio by reference.

c. The custodian of the IT Security Plan is Michael DeAngelo, WDFW Chief Information Officer (CIO).

d. The IT Security Plan is developed and maintained in accordance with published ISB policy.

e. The Office of the State Auditor completed a compliance audit of the WDFW IT Security Plan on May 13, 2009. This satisfies the DIS/ISB requirement for an independent audit of the agency IT security plan within three years of the previous audit (July 16, 2006).

The next audit will be completed on or before May 13, 2012, unless otherwise directed by the ISB.

2. Disaster Recovery/Business Resumption Plan

a. The annual state government Disaster Recovery/Business Resumption Plans compliance certification, due each August 31, is included in Section 6 of this Portfolio. The certification document has also been submitted to the ISB. The verification indicates review and acceptance of agency disaster recovery practices/business resumption processes, procedures, and practices as well as updates to them since the last review.

b. The Disaster Recovery/Business Resumption Plans are included in this Portfolio by reference.

c. The custodian of the agency Disaster Recovery/Business Resumption Plans is Jim Fry, WDFW Safety Officer.

d. The Disaster Recovery/Business Resumption Plans were developed and maintained in accordance with published ISB policy.

F. Public Access

WDFW continues to make significant progress toward providing electronic access to public information and enabling citizens to have two-way interaction for obtaining information and services, per RCW 43.105.270.

- The main e-government public access portal for WDFW information is the **WDFW Internet site**. This popular Web destination contains both static and dynamic content, including hunting and fishing regulations; online events calendar; annual reports and news releases; contact information, including phone numbers, email addresses, and information on WDFW regional offices; hunting safety information; and more. A new version of the agency Internet site was launched August 16, 2010.
  http://wdfw.wa.gov

Figure 3-1. The WDFW Internet site is a popular destination for both Web-enabled citizens and prospective visitors to Washington state.

- WDFW is a participating agency in the **Governor's Business Portal project**. This initiative will continue to provide improved Internet services to Washington businesses, an example of which is the WDFW Commercial License web site.
  http://wdfw.wa.gov/licensing/commercial/

- **The Washington Interactive License Database** (WILD) system provides improved public access for recreational license sales, CDs and books. The system allows dealers throughout the state to provide in-person license sales to the hunting and fishing public. Online sales are also supported. A more recent component is an agency call center that integrates public calls for both license sales and general information.
  https://fishhunt.dfw.wa.gov/

Figure 3-2. The WILD system helps improve public service and access.

- The **Integrated Environmental Permitting** site is now in production, allowing online applications for WDFW's Hydraulic Project Approvals. The site offers help in filling out a common application for many local, state and federal permits for work involving wetlands or on aquatic lands. Permits include Section 404, Section 10, Section 401 Water Quality Certification, Hydraulic Project Approval (HPA), and shoreline permits. *(See also section 3.G.3)*
  http://www.epermitting.org/default.aspx

- The **Habitat Work Schedule (HWS)** system uses web-based mapping tool to display and track the progress of salmon recovery restoration and protection projects. Thanks to funding provided by USFWS, and efforts by WDFW and locally based Lead Entity watershed groups, searching for restoration projects in our watersheds is as easy as clicking a mouse.
  http://hws.ekosystem.us/.

Figure 3-3. HWS version 2 incorporates many improvements such as enhanced project reporting, clickable Lead Entity map, public file search, and more.

- WDFW added several new video presentations to its portal on the popular **YouTube** streaming video site in 2010 A variety of instructional (*How to clean a trout*) and educational (*Preventing conflict with black bears*) content is available, as well as past episodes of the agency's popular *Wild About Washington* feature. As of August 2010, the site has garnered 436,231 content views.
  http://www.youtube.com/TheWDFW

Figure 3-4. WDFW makes a variety of video content available to the public on its *YouTube* site.

- The WDFW Public Affairs Office established an official, agency presence on **Twitter**, to promote public notification of hunting and fishing season updates, agency press releases, and new Internet site content. With 1,356 followers as of August 2010, the WDFW Twitter site membership has increased 500% in 13 months.
  http://twitter.com/wdfw/

- In July 2010, WDFW announced a new text-messaging option for reporting activity that threatens fish, wildlife and critical habitat. **Tip411** allows users to send a text message to WDFW's communications dispatch center. The text reporting system is powered by Minnesota-based Citizen Observer, a private vendor under contract with WDFW.
  http://wdfw.wa.gov/enforcement/reporting_violations.html

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G. Application (Systems) Information

DIS' *Information Technology Portfolio Management Standards* define an application or system as a "group of related automated procedures that support a business objective." Mission-critical applications in use at WDFW include:

- Licenses and Fish Tickets (LIFT) – see 3.G.1.
- TotalTime – see 3.G.2.
- Hydraulic Permit Management System (HPMS) – see 3.G.3.
- Washington Interactive License Database (WILD) – see 3.G.4.
- Equipment and Property Inventory Control (EPIC) – see 3.G.5.
- Contracts and Projects System (CAPS) – see 3.G.6.
- Info-Cop – see 3.G.7.
- Vehicle Mileage Tracking System (VMTS) – see 3.G.8.
- Enforcement Activity Reporting System (EARS) – see 3.G.9.
- Habitat Work Schedule (HWS) – see 3.G.10.
- Computerized Maintenance Management System (CMMS) – see 3.G.11.
- Consolidated Phone Management System (CPMS) – see 3.G.12.
- Wildlife Survey Data Management (WSDM) – see 3.G.13.
- CAD/RMS – See 3.G.14.
- Salmon Conservation Reporting Engine (SCoRE) – See 3.G.15.

1. Licenses Information and Fish Tickets (LIFT)

a. Application owners:
- Bill Joplin, Technology & Financial Management Program, Licenses Division (data steward - licenses)
- Lee Hoines, Technology & Financial Management Program, Information Technology Division (data steward - fish tickets)
- Nancy Rosenthal, Technology & Financial Management Program, Information Technology Division (code responsibility)

b. Customer/business area owners:
- Technology & Financial Management Program, Licenses Division
- Fish Program, Biological Data Systems Division

c. Application type: Client/Server, PowerBuilder/Sybase

d. Description: LIFT is an agency system to track the sale of commercial licensing information and the related catch data associated with those licenses. Historical data dates back to 1970.

e. Number of users: 10 operational, 30 decision support

f. Agency programs, business processes supported: Commercial license sales and fish ticket excise tax; revenue from sales and tax helps support agency activities.

g. Implementation date: October 1, 2000

h. Date significantly modified: intermittent improvements

i. Number of technical FTEs for maintenance and support: 1 FTE

j. Planned replacement or modifications: ongoing

k. Ownership of application: Agency

l. Application size and technical characteristics: Application is of moderate size and quite complex. Current database contains roughly 9.1 million observations.

m. Interfaces to other major systems: Scheduled data feeds to the PacFIN research database (NOAA Fisheries). Ad hoc data feeds to other databases and researchers throughout the US and internationally.

n. Public availability of data (check all that apply):

- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☐ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

2. TotalTime

a. Application owner: Director's Office – Operations; Technology & Financial Management Program

b. Customer/business area owner:
- Shawn Brown, Technology & Financial Management Program, Information Technology Division (data steward)
- Jason McKee, Technology & Financial Management Program, Information Technology Division (code responsibility)

c. Application type: Web (Browser) based Java Server Pages (JSP). MS SQL Server database

d. Description: User interface allows users to enter time worked and leave hours requested. Using the system, Supervisors approve hours worked and leave requests. Payroll staff approve timesheets and prepare data for HRMS processing at the Department of Personnel (DOP).

e. Number of users: Internal: All agency staff (1500 – 1800+) depending on the season. External: 0

f. Agency programs, strategies, or business processes supported: Supports Agency-wide administrative and processing of timesheets and leave requests.

g. Implementation date: 2006

h. Date significantly modified: 2008 (labor distribution, composite rate, and temporal person data)

i. Number of technical FTEs for maintenance and support: Tasks are distributed among 3 ITSD staff. Time varies, but, after implementation, rarely exceeds 1 FTE.

j. Planned replacement or modifications: none

k. Ownership of application (Agency, DIS, vendor facility): Agency/Beluga Software Agreement

l. Application size and technical characteristics: JAVA WAR file (10MB); Directory (associated files on local drive): 300 MB.

m. Interfaces to other major systems: HRMS, AFRS, DOP data warehouse

n. Public availability of data (check all that apply):

- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

3. Hydraulic Permit Management System (HPMS)

a. Application owner: Brian Fairley (Project Manager), Director's Office - Technology and Financial Management Program

b. Customer/business area owners:
- Peter Birch, Habitat Program (business process owner)
- Pat Chapman, Habitat Program (primary contact)

c. Application type: Web-enabled application (front end); MS SQL Server database (back end)

d. Description: Hydraulic Project Approvals (HPAs) are legislatively mandated permits issued by the agency for protection of fish life. Between 6,000 and 8,000 permits are issued annually.

e. Number of users: All Habitat biologists, Enforcement Staff, Habitat Program administrative staff, and select tribal biologists conducting External Viewer Pilot Project.

f. Agency programs, strategies, or business processes supported: Habitat protection and Public Affairs - hydraulic permit application process

g. Implementation date: 1989

h. Date significantly modified: 2002. (HPMS Release 1: 2004), 2005/2006 (HPMS Release 3.x: 2005), (HPMS Release 5.x: 2007), HPMS Release 5.8x: and 5.9x 2009.

i. Number of technical FTEs for maintenance and support: 2.0 (nominal).

j. Planned replacement or modifications: The HPMS External Viewer will Go Live later this summer to tribes and other non-DFW users. Additional funding is desired maintain the current application.

k. Ownership of application: Agency

l. Application size and technical characteristics: The application is a web-based application and is accessible from the Internet (through Fortress).

m. Interfaces to other major systems: Database view into the WDFW Enforcement EARS system to retrieve Enforcement User information.

n. Public availability of data (check all that apply):

- ☐ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☒ Direct query on website
- ☐ GIS online mapping (provide URL)

4. Washington Interactive License Database (WILD)

a. Application owner: Justin McCarron, Technology & Financial Management Program, Information Technology Division (data steward)

b. Customer/ business area owner: Bill Joplin, Technology & Financial Management Program, Licensing Division Manager

Figure 3-5. The recreational razor clam season fills Washington beaches with licensed diggers.

c. Application type:

- Point of Sale -- Recreational Hunting and Fishing license sales terminals (MS Windows) connected to a central database using standard modem or broadband connections;

- Internet Sales -- Recreational Hunting and Fishing license sales application connected to a central database through the Internet.

d. Description: Statewide system with approximately 600 point of sale (POS) terminals that sell all types of recreational licenses. The license dealers are located at sporting goods stores, department stores, bait shops, etc. Sales data from the first-generation system, hosted by MCI, were imported into the second-generation system.

As of July 01, 2006, data from the second-generation system is stored by Active Outdoors (formerly Outdoor Central) in Nashville, TN. Data for both systems is transferred to WDFW and other state agencies for our use.

e. Number of users: 3,085,244

f. Agency programs, business processes supported: Directly related to license sales revenue; supports agency activities in Fish, Wildlife, Business Services, Director's Office – Operations, and Enforcement.

g. Implementation date: March 2001 for the first-generation system and July 2006 for the second-generation system.

h. Date significantly modified: July 2006

i. Number of technical FTEs for maintenance and support: 1.5

j. Planned replacement or modifications: The contract ended June 30, 2006 with MCI. The new vendor, Active Outdoors, implemented the new system statewide as of July 2006.

k. Ownership of application: MCI until June 2006; Active Outdoors from July 2006 to present.

l. Application size and technical characteristics: Large system of moderate to high complexity. Supports high volume sales.

m. Interfaces to other major systems: Directly supports the WILD replication database and WILD Reporting System (intranet and internet versions) in ITSD. Incorporates data from system at DSHS. Provides license sales and customer data to Enforcement CODY system.

n. Public availability of data (check all that apply):
- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

5. Equipment and Property Inventory Control (EPIC)

a. Application owner: Shawn Brown, Technology & Financial Management Program, Information Technology Division (data steward)

b. Customer/business area owner: Cathy Drew, Technology & Financial Management Program, Financial Services Division

c. Application type: Microsoft Visual FoxPro 9.0

d. Description: Application allows entry/modification of Agency Assets. Barcode labels are printed from the EPIC System. State reporting is also built into the EPIC System. Barcode Scanners interface with the EPIC System. The EPIC System replaced the State System CAMS.

e. Number of users: 75

f. Agency programs, strategies, or business processes supported: Business Services Program, Financial Services Division

g. Implementation date: 1999

h. Date significantly modified: none

i. Number of technical FTEs for maintenance and support: 0.5 (majority of programming support is contracted through WSU Cooperative Extension)

j. Planned replacement or modifications: none

k. Ownership of application: Agency

l. Application size and technical characteristics: 6 MB

m. Interfaces to other major systems: none

n. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

6. Contracts and Projects System (CAPS)

a. Application owner: Brian Fairley, Technology & Financial Management Program, Information Technology Division (Project Manager)

b. Customer/business area owner:
- CAPS - Lee Rolle, Technology & Financial Management Program
- CAPS Financial – Dave Giglio, Technology & Financial Management Program.

c. Application type:
- CAPS Classic - Client-based Visual Basic 6 user interface with a MS SQL Server database.
- CAPS Financial – Web-based (Java) user interface with a MS SQL Server database.

d. Description: User interface allows users to manipulate contract and project related data and build program spending plans, within the limits of Agency approved business rules.

e. Number of users: Internal: 500, External: 0

f. Agency programs, strategies, or business processes supported: Supports Agency-wide administrative and processing processes associated with contracts, projects and spending plans.

g. Implementation date: 2004

h. Date significantly modified:

- Spring 2009: CAPS Classic (v2.12) added new authentication process for Active Directory integration

- Summer 2009: CAPS Financial – made several minor enhancements based on user priorities.

i. Number of technical FTEs for maintenance and support: 0 (unable to document time spent by ITS staff to support users)

j. Planned replacement or modifications: None planned.

k. Ownership of application (Agency, DIS, vendor facility): Agency

l. Application size and technical characteristics: CAPS Classic executable file: 2.5MB; Directory (associated files on local drive): 56.8 MB.

m. Interfaces to other major systems: ADDS, OFM – TALS-AMR.

n. Public availability of data (check all that apply):
- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☐ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

7. Info-Cop

a. Application owner: Enforcement Program

b. Customer/business area owner: Garret Ward, Enforcement Program

c. Application type: Client/Server, Third-party application/Sequel

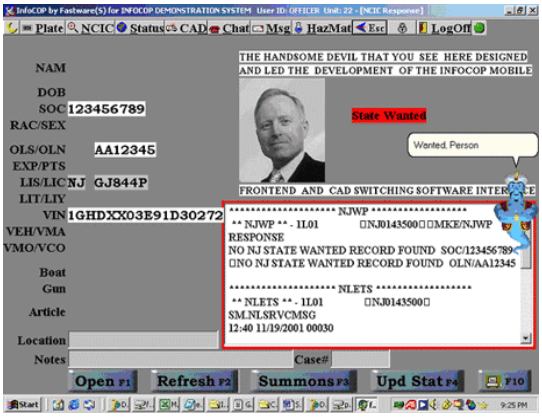

Figure 3-6. *Info-Cop* provides Enforcement staff with fast, accurate data. *(photo credit: Info-Cop)*

d. Description: Info-Cop is an application that enables Fish and Wildlife Officers to make inquires to Criminal Justice Databases. The application allows officers to make entries into the application database, which is linked to the information from the criminal justice databases. This allows the comments made by an officer to be made available when the subject or vehicle is the result of a future inquiry. In addition, officers post their current location and /or status to facilitate operations and officer safety. The application also provides chat and message functionality to application users.

e. Number of users: Internal: 135, External: None

f. Agency programs, strategies, or business processes supported: Supports Strategic Plan Objective #2 -"Protect, restore and enhance fish and wildlife populations and habitat"; Activity #9 - "Ensure Compliance with WDFW Regulations"; Objective #3 - "Provide excellent professional service; and Activity #22 – "General Law Enforcement".

g. Implementation date: 2004

h. Date significantly modified:

i. Number of technical FTEs for maintenance and support: 0.5

j. Planned replacement or modifications: A new system, CAD/RMS (computer-aided dispatch/records management system), is presently in development. The new system will eventually replace all functionality of Info-Cop.

k. Ownership of application (Agency, DIS, vendor facility): Agency/Enforcement Program (Purchased with USDOJ COPS Grant funds).

l. Application size and technical characteristics: Client application: Thin client (runs in web browser); Server side: SQL Database.

m. Interfaces to other major systems: Communication to Washington State Patrol ACCESS Communications switch via DIS Inter-governmental Network. Access to Info-Cop in the field is provided by a NetMotion appliance.

n. Public availability of data (check all that apply):
☒ Not a public database
☒ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

8. Vehicle Mileage Tracking System (VMTS)

a. Application owner: Shawn Brown, Technology & Financial Management Program, Information Technology Division (data steward)

b. Customer/business area owner: Karen McManus, Technology & Financial Management Program, Financial Services Division, General Accounting Office

c. Application type: Microsoft SQL

d. Description: Application allows entry/modification of Agency Vehicles and Credit Cards. Each vehicle is assigned an operating master index (MI) "home code". VMTS downloads AFRS coding daily. Mileage expenditures are charged to the appropriate MI code after the collection of mileage information via the Web based Mileage collection application. The Voyager Credit Card, ComData Credit Card, and WSDOT Credit Card bills are also processed via VMTS to charge the appropriate MI. The Journal Voucher is submitted electronically via the IBM mainframe after FTE file to the IBM Mainframe. Email is incorporated in VMTS as a way of communicating with the vehicle contacts and program contacts. VMTS has multiple reports available for management and journal voucher backup.

e. Number of users: PowerBuilder (6), Web App (567)

f. Agency programs, strategies, or business processes supported: Technology & Financial Management Program, Financial Services Division; all other agency programs that own or operate vehicles

g. Implementation date: 2001

h. Date significantly modified: Upgraded to MS SQL June 2010.

i. Number of technical FTEs for maintenance and support: 0.25

j. Planned replacement or modifications: None

k. Ownership of application: Agency

l. Application size and technical characteristics: 20 MB

m. Interfaces to other major systems: AFRS Master Accounting information

n. Public availability of data (check all that apply):

- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☐ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

9. Enforcement Activity Reporting System (EARS)

a. Application owner: Enforcement Program

b. Customer/business area owners:
- Chief Bruce Bjork – Enforcement Program (business process owner)
- Jason McKee – Technology & Financial Management Program, Information Technology Division (code responsibility)

c. Application type: Web-enabled front end (Java Swing); SQL back end.

d. Description: EARS is an in-house system for reporting Enforcement Officer time spent on various activities during a particular 28-day reporting period. (EARS contains does not interface with the statewide payroll reporting system.)

Figure 3-7. *EARS* provides a convenient way for WDFW Enforcement officers to report their activities.

e. Number of users: 150

f. Agency programs, strategies, or business processes supported: Enforcement program.

g. Implementation date: 2003

h. Date significantly modified: Spring 2007

i. Number of technical FTEs for maintenance and support: 0.1

j. Planned replacement or modifications: None planned.

k. Ownership of application (Agency, DIS, vendor facility): Agency

l. Application size and technical characteristics: 45MB. Java/Tomcat/Apache/SQL (see section 3.H for database information).

m. Interfaces to other major systems: WDFW LDAP used for authentication.

n. Public availability of data (check all that apply):

- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☐ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

10. Habitat Work Schedule (HWS)

a. Application owner: Interlocking Software – Poulsbo, WA.

b. Customer/business area owner: Erik Neatherlin, Intergovernmental Resource Management/Environmental Policy (Project Manager)

c. Application type: Web-based (.NET) user interface with an Oracle database backend.

d. Description: Habitat Work Schedule (HWS) is a centralized web-based tool that helps WA State Lead Entities and others interested in salmon recovery map habitat restoration projects and track the progress of recovery plan implementation.

e. Number of users: 378 Lead Entity and DFW Users

f. Agency programs, strategies, or business processes supported: Salmon recovery, Watershed stewardship

g. Implementation date: Complete – 12/07

h. Date significantly modified: 6/2009 – 6/2010

- Migrated to new EKO Portal Framework.
- Numerous additions, changes and fixes

i. Number of technical FTEs for maintenance and support: Vendor supplied

j. Planned replacement or modifications:
- Paladin funded enhancements for summer/fall 2010
- Version 2010 Framework Upgrade (HWS Login)
  - Cross Browser Support
  - File Manager Enhancements
  - GIS Browser Enhancements
  - User profile Enhancements
  - Site Profile Enhancements
- Proposed state funded public portal upgrades (TBD)
  - Add Monitoring Page to HWS Portal
- Other state funded proposed upgrades (TBD)
  - HWS/PRISM Interface

k. Ownership of application (Agency, DIS, vendor facility): Vendor (Interlocking Software, Poulsbo, WA)

l. Application size and technical characteristics:

- HWS Application: 5.4 GB
- HWS Public Portal: 40 MB
- HWS Database: 9.2 GB (approximate)
- User Project Files: 11 GB
- User File Repository: 4.3 GB
- User GIS Project Data: N/A – now resides in HWS databsae
- GIS Basemap Imagery: 70 GB (approximate) no change

m. Interfaces to other major systems: RCO (formerly IAC) PRISM

n. Public availability of data (check all that apply):

☐ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☒ Direct query on website: http://hws.ekosystem.us
☒ GIS online mapping: http://hws.ekosystem.us

11. Computerized Maintenance Management System (CMMS)

a. Application owner:
- Doug Goodart, Technology & Financial Management Program, Information Technology Division (data steward)
- Tero Consulting, Ltd. (code responsibility) http://www.teroconsulting.com

b. Customer/business area owner:
- Fleet: Ross Fuller, Director's Office
- Facilities: Glenn Gerth, Capital and Facilities Management

c. Application type: Web-enabled application (.NET); Microsoft SQL Server database

d. Description: WDFW utilizes Tero Consulting's *Web Work* Computerized Maintenance Management System (CMMS) to comply with the fleet management standards mandated by Executive Order 05-01 and to comply with the facilities management standards mandated by the legislature and following the guidelines of the "Berk Report".

e. Number of users: 60

f. Agency programs, strategies, or business processes supported: Operational excellence.

g. Implementation date: Spring 2007.

h. Date significantly modified: Phase 2 went online during Summer 2008.

i. Number of technical FTEs for maintenance and support: 0.25

j. Planned replacement or modifications: There is a potential, at some point in the future, for this application to automate agency purchasing functions. Some modifications to accommodate new credit card vendor and other business rule changes to take place FY10-11.

k. Ownership of application: Tero (application); WDFW (data)

l. Application size and technical characteristics:
Technical characteristics for this .NET application are available from Tero Consulting.
http://www.teroconsulting.com/fleet.asp

m. Interfaces to other major systems: VMTS, EPIC, ComData credit card, DOT (fuel data), HRMS, LDAP (Active Directory), AFRS (MI data).

n. Public availability of data (check all that apply):
- ☒ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

12. Consolidated Phone Management System

a. Application owner:
- Doug Goodart, Technology & Financial Management Program, Information Technology Division (data steward, code responsibility)

b. Customer/business area owners:
- Laura Burbank, Business Services Program, Financial Services Division (cell phones)
- Nikki Derringer, Technology & Financial Management Program, Information Technology Division (VoIP, handsets, cabling, PBX)

c. Application type:
- CPMS - Web (Browser) based Java Server Pages (JSP) with a MS SQL Server database
- CPMS Import Admin - Client-based Java (Swing) user interface with a MS SQL Server database.

d. Description:
- CPMS Import Admin allows import of data from phone vendors (landline, cellular, and calling cards).
- CPMS allows entry/modification of agency cell phone information. Each phone is assigned an operating master index code. The CPMS System downloads AFRS coding daily and has the capability to refresh manually as needed. Creates a Journal Voucher as an MS Excel file for allocation of cell phone charges. CPMS has multiple reports available for management that also include SCAN, calling card, and PBX access.

e. Number of users: CPMS Import Admin – 1, CPMS – 1000+

f. Agency programs, strategies, or business processes supported: Operational excellence.

g. Implementation date: 2005

h. Date significantly modified: 2009

i. Number of technical FTEs for maintenance and support: 0.25

j. Planned replacement or modifications: Modifications to the system are anticipated for management of calling cards and SCAN (FY11).

k. Ownership of application: WDFW

l. Application size and technical characteristics:
   a. CPMS - JAVA WAR file;
   b. Directory (associated files on local disk): ~ 1 GB
   c. CPMS Import Admin – JAVA JAR file; exe: < 100KB

m. Interfaces to other major systems: WDFW LDAP used for authentication

n. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

13. Wildlife Survey Data Management (WSDM)

a. Application owner (program/division, DFW contact): Raj Deol, Wildlife Program, Data Systems Manager

b. Customer/ business area owner (program/division, DFW contact): Wildlife Survey Data Management System, Wildlife Science Division

c. Application type: Windows Desktop

d. Description: WSDM is the front end for the corporate database of wildlife observational data for both game and non-game species. Data is entered into the database by the wildlife data stewards, who enter and manage data on a per-species basis.

e. Number of users: 7

f. Agency programs, business processes supported: Wildlife, Fish, Habitat

g. Implementation date: November 2006.

h. Date significantly modified: June 2009

i. Number of technical FTEs for maintenance and support: 2

j. Planned replacement or modifications: Fish and Habitat Program staff will also enter data into this database in the future.

k. Ownership of application (agency, contractor, other): Agency

l. Application size and technical characteristics: ArcGIS Embedded Application developed via .NET/COM/ArcObjects

m. Interfaces to other major systems: Several Geolib datasets, Agency Taxonomy Database, Wildlife Survey Observation Database

n. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

14. Computer Aided Dispatch/Records Management System (CAD/RMS)

a. Application owner: Garret Ward, Enforcement Program (project manager)

b. Customer/business area owner: Bruce Bjork, Chief, Enforcement Program (executive sponsor)

c. Application type: CODY6 is a client server application and used primarily by Enforcement staff at Headquarters and in each of the regional offices. CODY7 is a web-based application and is used by the Enforcement officers in the field.

d. Description: Application will aid WDFW Enforcement officers to utilize new technologies including Computer Aided Dispatch (CAD), Records Management System (RMS), and Radio over Internet Protocol (RoIP). The goals are to improve service, reduce response time, and increase officer safety.

e. Number of users: All Enforcement officers and several Enforcement support staff (~ 150 total).

f. Agency programs, strategies, or business processes supported: Implement processes that produce sound and professional decisions, Improve service, reduce response time, and increase officer safety.

g. Implementation date: June 2010.

h. Date significantly modified: Completed radio over IP in early FY10. Phase I of CAD/RMS development began in FY10.

i. Number of technical FTEs for maintenance and support: 2.5

j. Planned replacement or modifications: Development of dispatch feature to be completed in FY11.

k. Ownership of application (agency, DIS, vendor): The application is owned by the vendor (CODY Systems, Inc.).

l. Application size and technical characteristics:
25 GB file allocation on server

m. Interfaces to other major systems: ACCESS (WSP), CJIS (FBI), Washington Interactive Licensing Database (DFW – WILD)

n. Public availability of data (check all that apply):

- ☒ Not a public database
- ☒ Exempt from public disclosure
- ☐ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

15. Salmon Conservation Reporting Engine (SCoRE) (new)

a. Application owner: Brodie Cox, Fish Program (project manager)

b. Customer/business area owner: Jim Scott, Fish Program (executive sponsor)

c. Application type: Database/ Web app

d. Description: SCoRE is the new name for the H2WS project. **S**almon **Co**nservation **R**eporting **E**ngine. This project serves as a fish program data aggregator and reporting application. It also drives a web frontend.

e. Number of users: >1000 (est.)

f. Agency programs, strategies, or business processes supported: Fish Program, 21st Century Salmon Initiative, Strategic Plan, external reporting

g. Implementation date: Phase 1 launches in Aug 2010

h. Date significantly modified: N/A

i. Number of technical FTEs for maintenance and support: 3-4 developers, 10-12 contributing database stewards.

j. Planned replacement or modifications: Phase 2 includes greatly enhanced reporting capabilities for regional entities

k. Ownership of application (agency, DIS, vendor): Agency

l. Application size and technical characteristics:
<10 GB file allocation on server for aggregator DB, much larger when including tributary DBs (all major fish program databases)

m. Interfaces to other major systems: Habitat Work Schedule, Agency web site, All major Fish Program datasets

n. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☒ Direct query on website (provide URL) TBD
☒ GIS online mapping (provide URL) TBD

H. Database Information

DIS' *Information Technology Portfolio Management Standards* states that mission critical databases support high risk application systems. With a mission critical database, even short-term loss of the functionality provided by the application and database would have significant negative impact on:

- The health or safety of the public or state workers;
- Income maintenance for citizens or government employees,
- Payments to vendors for goods and services; or
- The legal or fiscal integrity of state operations.

Databases deemed mission critical to WDFW business functions include the following:

- Auxiliary Fish Catch Record System (AFCRS) – see 3.H.1.
- Licenses and Fish Tickets (LIFT) – see 3.H.2.
- TotalTime – see 3.H.3.
- Wildlife Survey Data Management (WSDM) System - see 3.H.4.
- Hydraulic Permit Management System (HPMS) – see 3.H.5.
- Consolidated Phone Management System – see 3.H.6.
- Personnel Database – see 3.H.7.
- PHS Polygon Database (PHSPOLY) – see 3.H.8.
- Computerized Maintenance Management System (CMMS) – see 3.H.9.
- Washington Interactive License Database (WILD) – see 3.H.10.
- Equipment and Property Inventory Control (EPIC) – see 3.H.11.
- Contracts and Projects System (CAPS) – see 3.H.12.
- Info-Cop – see 3.H.13.
- Vehicle Mileage Tracking System (VMTS) – see 3.H.14.

- Sport Catch Harvest Data (CRC) – see 3.H.15.
- Hatchery Data System – see 3.H.16.
- Spawning Ground Survey System – see 3.H.17.
- Washington Lakes and Rivers Information System (WLRIS) – see 3.H.18.
- SSHIAP Database (Segments) – see 3.H.19.
- Local Habitat Assessment Database – see 3.H.20.
- Intensively Monitored Watersheds Database – see 3.H.21.
- Fish Passage and Diversion Screening Inventory Database – see 3.H.22.
- Enforcement Activity Reporting System (EARS) – see 3.H.23.
- Habitat Work Schedule (HWS) – see 3.H.24.
- Coastal Trawl Logbook System (CTLS) – see 3.H.25.
- Forage Fish Database – see 3.H.26.
- Coded Wire Tag (CWT) Recoveries – see 3.H.27.
- Salmonid Stock Inventory (SaSI) – See 3.H.28.
- FishBooks – Hatchery Management System – See 3.H.29.
- CAD/RMS (new) – See 3.H.30.
- Salmon Conservation Reporting Engine (SCoRE) – See 3.H.31.

1. Auxiliary Fish Catch Record System (AFCRS - QuickReports)

a. Database commercial name: Microsoft Access (Windows)

b. List of applications supported: MS Access Applications QuickSoft.mdb, QuickSoft_NWIFC_DataExchange.mdb

c. High-level description/type of data collected: In-season commercial salmon, steelhead, sturgeon, and Columbia River smelt summary catch data for Washington waters. Data source is commercial fish tickets, treaty data file input records, and non-treaty ticket data reported by dealers via phone, fax, e-mailed or mailed.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Sheila Smith, Fish Program (data steward)

f. Size of database (in terms of storage requirements): 110 MB

g. Number of records in database: Annual data tables are 10,000 records.

h. Frequency with which records are added, modified, and deleted: Daily - bi-weekly, depending on fishing season

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

2. Licenses Information and Fish Tickets (LIFT)

a. Database commercial name: Sybase

b. List of applications supported: WDFW commercial licensing, WDFW Fish Ticket catch accounting, NMFS/NOAA PacFIN research database, and various other departmental and external databases.

c. High-level description/type of data collected: Commercial fishing license sales and transfers, catch data statistics based on species / geographic area / capture-method / date / vessel / person / etc.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Bill Joplin, Technology & Financial Management Program, Licenses Division (data steward - licenses);
- Lee Hoines, Technology & Financial Management Program, Information Technology Division (data steward - fish tickets);
- Nancy Rosenthal, Technology & Financial Management Program, Information Technology Division (code responsibility)

f. Size of database (in terms of storage requirements): Operational and reporting requirements are roughly 5.5 GB

g. Number of records in database: 12 million

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

3. TotalTime

a. Database commercial name: Microsoft SQL Server, Microsoft Enterprise Active Directory LDAP

b. List of applications supported: TotalTime

c. High-level description/type of data collected: Timesheet data, Personnel Data (hours worked, leave, personnel profile)

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Shawn Brown, Technology & Financial Management Program, Information Technology Division (data steward)

f. Size of database: 200MB (data space allocation).

g. Number of records in database: 24 tables are associated with the application, with the largest containing ~3.5 million records.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

4. Wildlife Survey Data Management (WSDM)

a. Database commercial name: Microsoft SQL

b. List of applications supported: WSDM supports the marbled murrelets, spotted owls, heritage, and herps datasets.

c. High-level description/ type of data collected: The WSDM database is the corporate database for wildlife observational data for both game and non-game species.

Data is entered into the database by the wildlife data stewards, who enter and manage data on a per-species basis. Fish and Habitat Program staff will also enter data into this database in the future.

Figure 3-8. Spotted owl (*Strix occidentalis)*.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:

- Marbled Murrelets and Butterflies Data: Jane Jenkerson, Wildlife Program (database steward)
- Owls/Reptiles/Amphibians Data: Lori Salzer, Wildlife Program (database steward)
- General T&E (raptors, occprod) Data: Gretchen Blatz, Wildlife Program
- Raj Deol, Wildlife Program (technical support and maintenance)
- Randy Kreuziger, Director's Office – Operations, IT Services (geodatabase administrator)

f. Size of database (in terms of storage requirements): ~2.5 GB.

g. Number of records in database: In excess of 150,000 (relational SDE geo-database containing six feature classes and 25 tables).

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website
☐ GIS online mapping (provide URL)

5. Hydraulic Permit Management System (HPMS)

a. Database commercial name: Microsoft SQL Server

b. List of applications supported: HPA approval process, HPA enforcement process, HPMS External Viewer.

c. High-level description/type of data collected: Information is collected from HPAs, letters, on-site visits and applications. Current data (1989 to present) has been converted to MS SQL Server.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Lee Hoines, Director's Office - Technology and Financial Management Program (data steward)

f. Size of database: 650 MB (server allocation)

g. Number of records in database: 90 tables (275,000 rows in largest)

h. Frequency with which records are added, modified, and deleted: Daily/weekly

i. Backup frequency: Daily

Figure 3-9. Drainage culvert projects are one type of activity contained in the HPMS database.

j. Public availability of data (check all that apply):
- ☐ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☒ Direct query on website
- ☐ GIS online mapping (provide URL)

6. Consolidated Phone Management System

a. Database commercial name: Microsoft SQL Server

b. List of applications supported: Consolidated Phone Management System *(see section 3.G)*

c. High-level description/type of data collected: Billing information for WDFW-owned phones

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Laura Burbank, Technology & Financial Management Program, Financial Services (business process owner)
- Doug Goodart, Technology & Financial Management Program, Information Technology Division (data steward)

f. Size of database (in terms of storage requirements): 1400 MB

g. Number of records in database: 33 tables are associated with the application, with the largest containing 3 million records.

h. Frequency with which records are added, modified, and deleted:
Daily (most new records are added shortly after the receipt of the monthly cell phone billing data).

i. Backup frequency: Daily (WDFW network backup process)

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

7. Personnel Database

a. Database commercial name: Microsoft Access (WDFW_HRMS: WDFW Human Resource Management System [as opposed to the DOP HRMS system])

b. List of applications supported: Standalone; Ad-hoc reports used by agency managers.

c. High-level description/type of data collected: Human resource actions, tracking and workflow management; Employee training tracking.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Cindy Lerch, Director's Office, Operations, Human Resources Office (data owner);
- Bernie Triance, Technology and Financial Management Program, Information Technology Division (data steward)

f. Size of database (in terms of storage requirements): 1.4 GB allocated

g. Number of records in database: 64 tables; > 400,000 records

h. Frequency with which records are added, modified, and deleted: Daily.

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

8. PHS Polygon Database (PHSPOLY, PHSPTS, ZAPPOLY)

a. Database commercial name: ArcGIS and ARCSDE (Spatial Database Engine), SQLServer RDBMS

b. List of applications supported: Ad hoc extractions are used to help answer 500-600 annual requests for information from the general public. The database also supplies information to Habitat, Wildlife, and Fish Program staff for HPA, forest practices act, and SEPA reviews.

c. High-level description: Database contains polygonal information about habitats and species defined as priorities for management, conservation, and preservation.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- David Price, Habitat Program (business process owner)
- Terry Johnson, Habitat Program (data steward)

f. Size of database (in terms of storage requirements): ~3.5 GB

ArcGIS:

- PHSPOLY Database (ArcGIS feature class and tables located in GeoLib and in the PHSDIGI/PHS_Mapping_and_Attribute_Entry workspace):
  23223 total polygons in the PHSPOLY feature class, 4221 polygons in the PHSREGION feature class, 37549 records in the PHSPOLY_XREF table, 5610 records in the PHSEO table, 5610 Records in the PHSDSCRP table, 8199 records in the PHSSRC table, and 2785 records in PHSLULC table in 1 geodatabase (master_database.mdb) in 1 workspace (number of total polygons will vary throughout the year) (135MB - size will vary throughout the year)

- PHS_Mapping_and_Attribute_Entry - PHS Digitizing Workspace (located at /resdat/gis_data_mgmt/PHS_Mapping_and_Attribute_Entry):
  3 permanent upper-level workspaces, 4 permanent geodatabases, and at least 8 permanent files. There will be various temporary workspaces, geodatabases, and files present during the year. (484 MB - though size will vary throughout the year)

- Attribute_Menu - PHS Update Attribute Entry Menu Workspace (located in the PHS_Mapping_and_Attribute_Entry workspace):
  Directory storing the Python and Boa Constructor scripts for updating the attribute tables of the PHSPOLY database. (219 KB – size will vary throughout the year)

- Misc_mxds - PHS ArcGIS Miscellaneous Map Document Workspace (located in the PHS_Mapping_and_Attribute_Entry workspace):
  Directory storing miscellaneous map documents for updating the PHSPOLY database. (1.29 MB – size will vary throughout the year)

- Phs_management_scripts - PHS Update Database Scripts Workspace (located in the PHS_Mapping_and_Attribute_Entry workspace):
  Directory storing the Python and Boa Constructor scripts for updating the feature classes of the PHSPOLY database. (15.3 KB)

- Master_database.mdb – Master PHS database (located in the PHS_Mapping_and_Attribute_Entry workspace):
  ArcGIS geodatabase storing the master copies of the PHSPOLY database feature classes and tables. Currently 2 feature classes and 5 tables in the geodatabase. (135 MB)

- Phs_updates.mdb – PHS update database (located in the PHS_Mapping_and_Attribute_Entry workspace):
  ArcGIS geodatabase storing the feature classes undergoing updates. Currently 1 permanent feature classe, 1 permanent topology, and various temporary feature classes and tables in the geodatabase. (80 MB)

- Phs_attribute_entry.mdb –PHS update database for entering the new attribute information (located in the PHS_Mapping_and_Attribute_Entry workspace):
  ArcGIS geodatabase storing attribute tables in which new attribute information is entered. Currently 17 permanent tables in the geodatabase. (10 MB)

- archive_database.mdb –PHS update database for archiving the old PHS feature class and attribute tables (located in the PHS_Mapping_and_Attribute_Entry workspace):
  ArcGIS geodatabase storing archived feature classes and attribute tables. Currently 11 permanent feature classes in the geodatabase. (168 MB)

ArcSDE:

- PHSPOLY – Polygon Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  23223 total polygons in 1 data layer (number of total polygons will vary throughout the year) (100 MB - size will vary throughout the year)

- PHSREGION – Overlapping Polygon Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  4221 polygons) in 1 data layer (number of total polygons will vary throughout the year). (30 MB - size will vary throughout the year)

- PHS Attribute Tables (stored on SQLServer RDBMS):
  PHSPOLY_XREF (polygon cross-reference table for PHSPOLY) 37338 records; PHSEO (general information table) 5610 records; PHSDSCRP (descriptive information) 5610 records; PHSSRC (sources of information) 8199 records; PHSLULC (land use/land cover information) 2785 records, EOCODE_TBL (eocode descriptions) 942 records, and CRIT_TBL (mapping criteria code descriptions) 21 records.

g. Number of records in database: See above

h. Frequency with which records are added, modified, and deleted: Several times a year.

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☒ Documented request procedure on website
(http://wdfw.wa.gov/hab/release.htm)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

9. Computerized Maintenance Management System (CMMS)

a. Database commercial name: Microsoft SQL Server.

b. List of applications supported: Web Work (WDFW Fleet Management)

c. High-level description/type of data collected: Fleet and facilities management. This includes information pertaining to inventory, service, repair records, work orders, and scheduled maintenance.

d. Location (Agency, DIS, vendor facility): Vendor facility (B.C., Canada)

e. Ownership of database:
- Ross Fuller, Director's Office (business process owner - fleet)
- Glen Gerth, Capital Facilities (business process owner - facilities)
- Doug Goodart, Technology & Financial Management Program, Information Technology Division (data steward)
- Tero Consulting, Ltd. (database hosting) http://www.teroconsulting.com

f. Size of database (in terms of storage requirements): 349 MB

g. Number of records in database: 238,000 records in largest table

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

10. Washington Interactive License Database (WILD)

a. Database commercial name: Sybase, Microsoft SQL Server, Oracle

b. List of applications supported: WILD System, WILD replicated database and WILD Reporting System (intranet and internet versions), and various other departmental and external databases.

c. High-level description/type of data collected: Recreational hunting and fishing license sales data, hunting and Puget Sound recreational crab harvest reports.

d. Location (Agency, DIS, vendor facility): Agency, DIS, and Active Outdoors vendor facilities (Nashville, TN)

e. Ownership of database:
- Bill Joplin, Technology & Financial Management Program, Licensing Division (business owner)
- Justin McCarron, Technology & Financial Management Program, Information Technology Division (data steward)

f. Size of database (in terms of storage requirements): Operational and reporting requirements are roughly 128 GB.

g. Number of records in database: 234,164,757

h. Frequency with which records are added, modified, and deleted: Near real-time at vendor, once per week at WDFW.

i. Backup frequency: Daily (to Weekly)

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

11. Equipment and Property Inventory Control (EPIC)

a. Database name: Microsoft Visual FoxPro 9.0

b. List of applications supported: EPIC *(see also section 3.G)*

c. High-level description/type of data collected: Asset, location and cost information about WDFW-owned capital equipment and property.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:

- Technology & Financial Management Program, Financial Services Division (business owner)
- Shawn Brown, Technology & Financial Management Program, Information Technology Division (data steward)

f. Size of database (in terms of storage requirements): 300 MB

g. Number of records in database: ~33,500

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

12. Contracts and Projects System (CAPS)

a. Database commercial name: Microsoft SQL Server

b. List of applications supported: CAPS Classic, CAPS Financial

c. High-level description/type of data collected: Contracts and projects data (financial, legal, and administrative)

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Brian Fairley, Technology & Financial Management Program, Information Technology Division (Project Manager).

f. Size of database: CAPS Classic 1,900 MB, CAPS Financial 85 MB

g. Number of records in database: There are 130 tables with 465,000 records in the largest table.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

13. Info-Cop

Figure 3-10. Mobile computer mounted in vehicle of WDFW Enforcement officer.

a. Database commercial name: Microsoft SQL Server

b. List of applications supported: Info-Cop Application

c. High-level description/type of data collected: Officer's status entries, inquires, responses, chat and messages of officers utilizing the application.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Garret Ward, Enforcement Program

f. Size of database: 60 MB (server allocation).

g. Number of records in database: 200,000+

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
- ☒ Not a public database
- ☒ Exempt from public disclosure
- ☐ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

14. Vehicle Mileage Tracking System (VMTS)

a. Database name: MS SQL

b. List of applications supported: VMTS

c. High-level description/type of data collected:
Mileage and credit card cost information for WDFW-owned vehicles and other gas/diesel operated equipment.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Technology & Financial Management Program, Financial Services Division (business owner); Shawn Brown, Technology & Financial Management Program, Information Technology Division (data steward)

f. Size of database: 210 MB (server allocation)

g. Number of records in database: >1 million

h. Frequency with which records are added, modified, and deleted: Daily. (Most new records are added shortly after the last workday of each month.)

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

15. Sport Catch Harvest Data (CRC)

a. Database Commercial name: Microsoft Access (Windows), SAS

b. List of applications supported: None

c. High-level description/type of data collected: Estimated sport harvest - salmon, steelhead, sturgeon, marine fish, Dungeness crab

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Eric Kraig, Fish Program (data steward)

f. Size of database (in terms of storage requirements): 44 MB

g. Number of records in database: app. 48,000 records.

h. Frequency with which records are added, modified, and deleted: Annual catch data added; occasional revisions.

i. Backup frequency:
☒ Included in the agency automated nightly backup system (Access database)
☒ Other (specify): Weekly (SAS data)

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

16. Hatchery Data System

a. Database Commercial name: Microsoft Access (Windows)

b. List of applications supported: Standard retrieval, error-check and summarization reports designed for internal use only (MS Access), SQL.

c. High-level description/type of data collected: adult salmonid returns to WDFW hatcheries; eggs taken, disposition of adult carcasses, juveniles reared and released by size, age, species, stock

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Catie Mains, Fish Program (data steward)

f. Size of database (in terms of storage requirements): 6 GB

g. Number of records in database: >500,000

h. Frequency with which records are added, modified, and deleted: Daily to weekly, depending on time of year and particular dataset

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☒ Other (specify): Monthly, to external drive

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request*
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

* Some data available via Agency web site (i.e. Weekly planting reports): http://wdfw.wa.gov/fish/stocking/weekly/, weekly escapement: http://wdfw.wa.gov/hat/escape/escape.htm, Future Brood Document: http://wdfw.wa.gov/hat/reports/future_brood.htm and RMIS: http://www.rmpc.org/

17. Spawning Ground Survey System

a. Database Commercial name: Microsoft SQL Server 2000

b. List of applications supported: Standard retrieval, error-check and summarization reports designed for internal use only (MS Access)

c. High-level description/type of data collected: Wild adult salmonid live and dead counts, wild adult redd counts in streams of Washington.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Gil Lensegrav, Fish Program (data steward)

f. Size of database (in terms of storage requirements): 200 MB

g. Number of records in database: 300,000+

h. Frequency with which records are added, modified, and deleted: Daily to monthly, depending on time of year (peak from January through May)

i. Backup frequency:
☐ Included in the agency automated nightly backup system
☒ Other (specify): Daily

j. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☒ Documented request procedure on website:
http://www.swim.wa.gov (type "SGS" in search)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

18. Washington Lakes and Rivers Information System (WLRIS)

a. Database Commercial name: ESRI ArcGIS 9.2 / 9.3 SDE over SQL-Server 2000 geodatabase

b. List of applications supported: ArcGIS 9.2 / 9.3 ArcMap. Data entry, editing, analysis, cartography. Data distribution.

c. High-level description/type of data collected: spatial data representations of the 1:24,000 resolution streams and lakes of Washington state; anadromous and resident fish distribution; known spawning and rearing usage; salmonid stock identification and status (SaSI); agency facilities

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Andrew Weiss, Fish Program (data steward)

f. Size of database (in terms of storage requirements): 1.87 GB

g. Number of records in database: 740,126 (includes lookup and other related tables)

h. Frequency with which records are added, modified, and deleted: Weekly, or as needed

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☒ Other (specify): Quarterly to CD-ROM also

j. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☒ Documented request procedure on website:
http://wdfw.wa.gov/hab/release.htm
☒ Direct query on website:
http://wdfw.wa.gov/mapping/salmonscape/index.html
☒ GIS online mapping:
http://wdfw.wa.gov/mapping/salmonscape/index.html

19. SSHIAP Database (Segments)

a. Database commercial name: ArcView 9 personal geodatabase (MS Access Database), ArcSDE (Spatial Database Engine), SQLServer RDBMS

b. List of applications supported: Ad hoc extractions are used to help answer requests for information from the general public. The database also supplies information to Habitat and Fish Program staff for HPA, forest practices act, and SEPA reviews. Stream_Net is the base layer in the Family Forest & Fish Passage Upstream Habitat Estimator application. Segments and EDT layers are displayed on the SalmonScape IMS application.

c. High-level description: Segments feature class contains polyline information about stream gradient, confinement, channel habitat, and Rosgen. Stream_Net is a geometric network with network connectivity and flow direction. Stream_Net_Junctions is a network junction layer with one junction at every polyline end. EDT_pres is a polyline feature class which stores Ecosystem Diagnosis and Treatment Preservation results. EDT_rest is a polyline feature class that stores Ecosystem Diagnosis and Treatment Restoration results.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Habitat Program, David Price (business process owner)
- Habitat Program, Ken Pierce (data steward)

f. Size of database (in terms of storage requirements):

ArcView 9 Personal Geodatabase:
- WRIA# Database (ArcView 9 personal geodatabase):
  One personal geodatabase exists for each WRIA. Segments, Stream_Net (geometric network built on segments layer), and EDT_pres & EDT_rest are contained in this database. The size of the database varies depending on the size and stream density of the WRIA.

- SSHAIP Staging_Area Workspace:
  Working directories for updating the SSHIAP personal geodatabase (contains ArcMap projects and WRIA# personal geodatabase). Each personal geodatabase contains a segments, Stream_Net, and Stream_Net_Juctions feature class split at the WRIA boundary. WRIAs 22- 29 contain EDT_pres and EDT_rest feature classes. There is one directory for each WRIA (size of

directory will vary depending on WRIA). Size of Staging_Area directory: 19 GB.

- SSHAIP Statewide Workspace:
  Working directory for merged statewide SSHIAP layers
  (12 GB)

ArcSDE:

- Segments – Polyline Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  1043377 total polylines in 1 database.

- EDT_pres - Polyline Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  5745 total polylines in 1 database.

- EDT_rest - Polyline Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  17279 total polylines in 1 database.

g. Number of records in database: See above

h. Frequency with which records are added, modified, and deleted: As changes get made to the agencies hydro layer or more EDT data becomes available.

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data:
☐ Not a public database
☒ Exempt from public disclosure
☒ Available by written request
☒ Documented request procedure on website:
http://wdfw.wa.gov/hab/release.htm
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

20. Local Habitat Assessment Database

a. Database commercial name: ArcGIS Desktop: ArcInfo/ArcEdit

b. List of applications supported: Data models are developed and used to determine a ranking of the current wildlife habitat throughout a county level scale for landscape planning activities by local governments.

c. High-level description: Data layers are primarily a raster based GRID format and include ecoregional assessment, road density, and land conversion. These layers are each similarly ranked from low to high wildlife value, and then digitally combined to derive a composite of information depicting wildlife habitat value. PHS and WDFW Heritage significant areas are then combined with this composite product to produce a final representation of wildlife habitat value.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Habitat Program:
- Tim Quinn (business process owner)
- John Jacobson (data steward)

f. Size of database (in terms of storage requirements): 500 MB per county and currently includes Kitsap, Whatcom, Thurston, Jefferson, San Juan, Island, Lewis, and Skagit Counties.

g. Number of records in database: Each data layer is processed to produce a ranking of 1 to 10, with 10 discrete integer value records.

h. Frequency with which records are added, modified, and deleted: The database model allows at any time for data deletion, updating of existing data, and adding new data as it becomes available.

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

21. Intensively Monitored Watersheds Database

a. Database commercial name: Microsoft Access and Microsoft Access with SQL Server back end.

b. List of applications supported: For use by WDFW personnel, other public agencies, researchers, etc.

c. High-level description: Intensive and extensive surveys of streams, including smolt, spawner, and redd counts.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Habitat Program, Tim Quinn (business process owner)
- Habitat Program, Kevin Samson (data steward)

f. Size of database (in terms of storage requirements): N/A (still in developmental stage)

- Intensive Survey dB:
  Will hold EMAP-Protocol data collected from summer Intensive Survey, starting from 2004 survey.

- Extensive Survey dB:
  Will hold data from on-going Extensive Survey, starting from 2004 survey.

- Fish Program Data dB:
  Pending. Will hold data from smolt, spawner, and redd surveys.

g. Number of records in database: N/A (still in developmental stage)

h. Frequency with which records are added, modified, and deleted: Several times a year.

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):

- ☐ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☒ Documented request procedure on website:
  http://wdfw.wa.gov/hab/imw/index.htm
- ☐ Direct query on website (provide URL)
- ☐ GIS online mapping (provide URL)

22. Fish Passage and Diversion Screening Inventory Database

a. Database commercial name: Microsoft Access with SQL Server back end

b. List of applications supported: WDFW uses the data to identify, locate, and prioritize correction of human-made fish passage barriers and unscreened surface water diversions. Data have been provided to SSHIAP, Conservation Commission limiting factors analysis, regional fisheries enhancement groups, counties, cities, tribes, etc for salmon recovery planning. The database also supports the Fish Passage Barrier components of Salmonscape, Streamnet and Geolib Fish Passage Barrier Inventory dataset.

c. High-level description: Database contains information on the fish passage status of human-made instream structures and the screening status of surface water diversions.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- David Price, Habitat Program/Ecosystem Restoration Unit (business process owner)
- Brian Benson, Habitat Program/ Ecosystem Restoration Unit (data steward)

f. Size of database (in terms of storage requirements):
- Tables (SQL Server): 100+ MB
- Images (jpeg): 2.4 GB
- Workstations (MS Access) - FPDSI user interface; 38 users including 1 administrator, 16 data entry, 21 read only; 7MB each.

g. Number of records in database: ~39,000 in the primary table plus related tables.

h. Frequency with which records are added, modified, and deleted: Daily.

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):

☐ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☒ GIS online mapping (provide URL)

SalmonScape

http://wdfw.wa.gov/mapping/salmonscape

23. Enforcement Activity Reporting System (EARS)

a. Database commercial name: Microsoft SQL Server.

b. List of applications supported: Enforcement Activity Reporting System

c. High-level description/type of data collected: Enforcement Officer time spent on various activities during a particular 28-day reporting period.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Chief Bruce Bjork, Enforcement Program (business process owner)
- Jason McKee, Technology & Financial Management Program, Information Technology Division (code responsibility)

f. Size of database: 195 MB

g. Number of records in database: 1.2 million records (in 21 tables)

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency: Daily backup provided by agency automated backup system.

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

24. Habitat Work Schedule (HWS)

a. Database commercial name: Interlocking (Oracle) replicated to WDFW (Microsoft – SQL Server) on a weekly – monthly basis.

b. List of applications supported: HWS, Environmental Knowledge Organizer (EKO)

c. High-level description/type of data collected: Data related to salmon habitat restoration – location, project type, project status, project goals, funding, stakeholders, etc.

d. Location (Agency, DIS, vendor facility):
- Production database is located at vendor facility (Interlocking Software – Poulsbo, WA).
- Replicated database located at WDFW.

e. Ownership of database:
- Erik Neatherlin, Intergovernmental Resource Management/Environmental Policy (Project Manager)
- Brian Fairley, Technology & Financial Management Program, Information Technology Division (Technical Project Manager)

f. Size of database: 9.2 GB(approximate) + 70 GB imagery data

g. Number of records in database: Currently ~ 7,540 Projects in the database (Lead entities only – excludes demo, test and training projects) HWS projects in the database each with several attributes and attached documents.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☒ Direct query on website: http://hws.ekosystem.us
☒ GIS online mapping: http://hws.ekosystem.us

25. Coastal Trawl Logbook System (CTLS)

a. Database commercial name: Multi-user data entry with MS Access forms into SQL Server tables (most recent 5 years of data). Export to ASCII files (archive) that are maintained, processed, and reported on using a collection of FORTRAN programs and Unix scripts. Data ultimately becomes part of a relational database in Oracle maintained by PacFIN.

b. List of applications supported: CTLS internal reporting and monthly data delivery to the PacFIN system (proportions of catch by area and aggregated effort). Also, a facsimile of the unreduced CTLS data is stored on the PacFIN system, along with similar data from OR and CA, and updated semiannually.

c. High-level description (type of data collected): Estimates of bottomfish trawl catch in Washington State by area, species, depth, etc., as well as fishing effort by area.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Fish Program - Greg Konkel (code responsibility)

f. Size of database (in terms of storage requirements): Approximately 200 megabytes.

g. Number of records in database: Approximately 5 million rows in a multi-line, card image format.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website *(in progress)*
☐ GIS online mapping (provide URL)

26. Forage Fish Database

a. Database commercial name: Microsoft Access with SQL Server back end.

b. List of applications supported:
- SalmonScape – Intertidal Forage Fish layers
- Geolib – doc_Smelt_Spawning, doc_Sand_Lance_Spawning, Forage_Fish_Surveys, and Forage_Fish_Survey_Pts feature classes
- Priority Habitat and Species (PHS)
- Various Habitat Program research activities and field sampling efforts
- Area Marine Habitat Biologists review of HPAs
- County shoreline management

c. High-level description: These data represent the results of spawning habitat surveys for surf smelt *(Hypomesus pretiosus)* and Pacific sand lance *(Ammodytes hexapterus)* conducted by WDFW and others along the marine shorelines of Washington State over the past 30 years.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Brian Benson, Habitat Program/Ecosystem Restoration Unit (data steward)
- David Price, Habitat Program/Ecosystem Restoration Unit (business process owner)

f. Size of database (in terms of storage requirements): 250 MB

g. Number of records in database:
- Survey_D – 22235
- Beach_D – 20422
- Egg_Count_D – 67839
- Egg_Stage_D – 28487
- Spawn_Intensity_D – 3126
- Substrate_Sample_D - 25811

h. Frequency with which records are added, modified, and deleted: Variable, dependent on field sampling protocols and timing.

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):

- ☐ Not a public database
- ☐ Exempt from public disclosure
- ☒ Available by written request
- ☐ Documented request procedure on website (provide URL)
- ☐ Direct query on website (provide URL)
- ☒ GIS online mapping (provide URL)

  SalmonScape
  http://wdfw.wa.gov/mapping/salmonscape

27. Coded-Wire Tag Recoveries

a. Database commercial name: Microsoft SQL Server

b. List of applications supported: Taglab.accdb Microsoft Access application.

c. High-level description/type of data collected: Data records of micro-tagged salmon and steelhead and associated sampling information. 12 data tables; 15 look-up tables (CWT Historical Recoveries); 6 cwt data tables, 10 look-up tables, 10 associated data tables (CWT Initial Recoveries).

d. Location (Agency, DIS, vendor facility): Agency Windows server

e. Ownership of database: Gil Lensegrav, Fish Program (Data Steward)

f. Size of database (in terms of storage requirements): 1.3 GB

g. Number of records in database: Approximately 5.0 million records among the major data tables and associated data tables in the database.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify):

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☒ Available by written request
☐ Documented request procedure on website (provide URL)
☒ Direct query on website *(via PSMFC Regional Mark Information Center, http://www.rmpc.org)*
☐ GIS online mapping (provide URL)

28. Salmonid Stock Inventory (SaSI)

a. Database name (Sybase, Oracle, etc.): Microsoft SQL Server 2000

b. List of applications supported: Supports the agency ARCIMS website for salmon recovery titled *Salmonscape*. Updates provided for the website occur on a monthly basis. Plans are also underway to link SaSI to *GENSAS*, an access database designed for the genetics laboratory. SaSI data entry is through the SaSI Web Funnel web-enabled Java application.

c. High-level description/type of data collected: Fish stock delineation, origin, status rating, annual escapement, genetic analysis, strength indicators, ESA listings, run timing, spawning distribution.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database:
- Jim Scott, Fish Program (business owner)
- Dayv Lowry, Fish Program (data steward)
- Gil Lensegrav (data manager)

f. Size of database (in terms of storage requirements): Currently 125 MB and expanding weekly

g. Number of records in database: 12,000 and growing weekly.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☐ Included in the agency automated nightly backup system
☒ Other (specify): Weekly

j. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☒ Documented request procedure on website
http://www.swim.wa.gov/
☒ Direct query on website
http://wdfw.wa.gov/mapping/salmonscape/
☒ GIS online mapping
http://wdfw.wa.gov/mapping/salmonscape/

29. FishBooks – Hatchery Management System

a. Database commercial name: Web (Browser) based Java Server Pages (JSP). MS SQLServer 2000 database.

b. List of applications supported: FishBooks Application. Supports hatchery databases of hatchery plants and adults

c. High-level description: User interface allows hatchery users to enter adult, egg and fish information. Report interface allows managers and headquarters staff to review information and produce summaries. The database is used by 200_ internal fish hatchery staff. Application depends on Perl Express, SQL server Management Studio, Ireports, Jasper Server Report in the future.

d. Location (Agency, DIS, vendor facility): Agency

e. Ownership of database: Catie Mains, Fish Program (data steward)

f. Size of database (in terms of storage requirements): 250 MB

g. Number of records in database: 300,000(+) records to date, (6/25/10). Application was launched to users 9/1/08.

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify)

j. Public availability of data (check all that apply):
☒ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

30. Computer Aided Dispatch/Records Management System (CAD/RMS)

a. Database commercial name: Oracle

b. List of applications supported: CAD/RMS

c. High-level description: Database stores all information required for CAD/RMS and is maintained by the vendor (Cody Systems, Inc.).

d. Location (Agency, DIS, vendor facility): DFW Data Center

d. Ownership of database: DFW

f. Size of database (in terms of storage requirements): 83 GB

g. Number of records in database: ~ 1.6 million records

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify)

j. Public availability of data (check all that apply):
☒ Not a public database
☒ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☐ Direct query on website (provide URL)
☐ GIS online mapping (provide URL)

31. Salmon Conservation Reporting Engine (SCoRE) (new)

a. Database commercial name: Salmon Conservation Reporting Engine (SCoRE)

b. List of applications supported: All major Fish Program databases

c. High-level description: This project serves as a fish program data aggregator and reporting application. It also drives a web front end.

d. Location (Agency, DIS, vendor facility): WDFW

e. Ownership of database:
- Brodie Cox, Fish Program (project manager)
- Max Pham/TBD, Fish Program (database manager)

f. Size of database (in terms of storage requirements): <10 MB

b. Number of records in database: TBD

h. Frequency with which records are added, modified, and deleted: Daily

i. Backup frequency:
☒ Included in the agency automated nightly backup system
☐ Other (specify)

j. Public availability of data (check all that apply):
☐ Not a public database
☐ Exempt from public disclosure
☐ Available by written request
☐ Documented request procedure on website (provide URL)
☒ Direct query on website (provide URL) TBD
☒ GIS online mapping (provide URL) TBD

END OF SECTION 3.H.

4. Current Technology Project/Investment Summaries

The table below provides summary information on technology investments active in FY2010.

Title	Description	Cost Estimate	FTE's	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Business Systems, Capital Programs	WDFW is automating business systems for fleet and equipment management, facility management, and capital project management. Retained a vendor, TERO Systems, to provide fleet management and facility management.	Spent about $103K in FY10, continued work on basic configuration and extending system to facilities. Lack of resources in FY11 may be an issue	Agency support, .5 FTE	Implemented service in FY07, plan to continue to operate and expand user base.	Agency wide, Executive level reporting and review.	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Bill Phillips Capital Programs Manager (360) 902-28382 bill.phillips@dfw.wa.gov
Business Systems, Recreational Licenses	The WILD system (recreational license sales) replacement project in 2006 resulted in the deployment of a new license sales system to retail sales agents. Most of the core functionality has been delivered, with some items still in progress. The vendor is ActiveOutdoors.	The operating and development costs are covered by a transaction fee. Estimated revenue to the system contractor is $1.7M per year.	Est. 3 FTE during FY10. Agency will manage some services internally	Essential services now complete. Work continues on several system elements, and system enhancements.	Statewide with public impact.	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Bill Joplin Licenses Manager (360) 902-2302 bill.joplin@dfw.wa.gov

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Title	Description	Cost Estimate	FTE's	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
IT Enabling Project, Computer System Architecture	Microsoft Migration – convert directory services to state EAD, migrate GroupWise email to DIS Exchange service. Migrate desktops to Vista and Office2007 – Completed in FY10	$1.38M for the Microsoft migration.	Agency IT support – 5 FTE	Project Completed in FY10	IT personnel agency wide, all employees	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Mike Keeling Deputy Information Technology Mgr. (360) 902-2435 mike.keeling@dfw.wa.gov
Business Systems, Commercial Licenses and Harvest	The Licenses and Fish Tickets (LIFT) application supports commercial license management and tracks commercial fish and shellfish harvest. LIFT is based on obsolete technology and a replacements system is under development however funding has not been approved for FY11-FY12	Internal resources est. at $400K. Lack of resources in FY11 continue to be an issue.	Agency IT and License Staff FTEs – 3 FTE	Complete database and prototype modules in FY2010, rollout of specific modules will begin in FY11	Multiple agency and external stakeholders	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Brian Fairley IT Project Manager (360) 902-2199 brian.fairley@dfw.wa.gov
Enforcement Program Efficiency	WDFW Enforcement will implement new technologies including Computer Aided Dispatch, Records Management, and Radio over Internet Protocol.	Est. $500K for FY10, from Federal and internal resources	Agency support, ~2.5FTE	Completed Radio over IP in early FY 2010. Phase 1 of Records Management in FY2010.	Multiple agency and external stakeholders	Implement processes that produce sound and professional decisions	Bruce Bjork Enforcement Chief (360) 902-2373 bruce.bjork@dfw.wa.gov	Garret Ward Enforcement Pgm Project Manager (360) 902-2794 garret.ward@dfw.wa.gov

END OF SECTION 4

5. Planned Projects/Investments

This table captures the major technology investments identified by WDFW as the top priorities for fiscal years 2011 through 2013.

Title	Description	Cost Estimate	FTE's	Impact on Existing Investments	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Business Systems, Capital Programs Manage-ment	The agency will continue to implement systems with TERO to provide fleet and facility management	$35K per year for basic operations. Lack of resources in FY11 may be an issue for enhancements	Agency support, .5 FTE	Potential replacement of existing systems	Implemented Will continue to expand use in FY11.	Agency wide, Executive level reporting and review.	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Bill Phillips Capital Pgms Manager (360) 902-8382 bill.phillips@dfw.wa.gov
Business Systems, Recrea-tional Licenses	The WILD system (recreational license sales) project resulted in the deployment of a new license sales system to retail sales agents. The out-sourced vendor is ActiveOutdoors	The operating and development costs are covered by a transaction fee. Estimated revenue earned by the system contractor is $1.7M per year.	IT support ~3 FTES in FY11. Agency will manage some services intern-ally	Replaces some existing agency systems with contractor-managed capabilities. Avoids maintenance and upgrade costs.	Operational status will include ongoing maintenance and upgrades performed by the vendor.	Statewide with public impact.	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Bill Joplin Licenses Manager (360) 902-2302 bill.joplin@dfw.wa.gov

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Title	Description	Cost Estimate	FTE's	Impact on Existing Investments	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Business Systems, Commercial Licenses and Harvest	LIFT manages commercial licenses and fish tickets from commercial fishing. LIFT is rapidly becoming obsolete technology and does not match the current IT architecture direction.	Internal resources est. at $300K. Lack of resources in FY11 may be an issue	Agency IT and License Staff FTEs – 3 FTE	Standardizes IT architecture. Replaces obsolete technology. Reduces maintenance costs.	Complete database and prototype modules in FY11, specific module rollout begins in FY11	Multiple agency and external stakeholders	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Brian Fairley IT Project Manager (360) 902-2199 brian.fairley@dfw.wa.gov
Enforcement Program Efficiency	WDFW Enforcement will implement new technologies including Computer Aided Dispatch, Records Management, and Radio over Internet Protocol.	Est. $100K for FY11, from Federal and internal resources.	Agency support, ~2.5 FTE	Enhances the ability of patrol officers to use current technology.	Expect Records Management and Dispatch to be completed in FY11	Multiple agency and external stakeholders	Implement processes that produce sound and professional decisions	Bruce Bjork, Enforcement Chief (360) 902-2373 bruce.bjork@dfw.wa.gov	Garret Ward Enforcement Program Project Manager (360) 902-2794 garret.ward@dfw.wa.gov

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Title	Description	Cost Estimate	FTE's	Impact on Existing Investments	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Integrated Project Review and Mitigation Tools (IPRMT)	Sponsored by ORA, IPRMT will provide multi-agency tools to integrate the review of projects that need various environmental permits	No IT funding FY11, on hold waiting for direction and funding	Agency support, ~1.5 FTE	May require a major change in HPMS, and new data interfaces.	Integrate Business rules for permits, formulate IT strategy.	Multiple agency and external stakeholders	Healthy, diverse and sustainable fish and wildlife populations	Lisa Veneroso Habitat Program Assistant Director (360) 902-2836 Lisa.Veneroso@ dfw.wa.gov	Michael DeAngelo Chief Information Officer (360) 902-2320 Michael.DeAngelo @dfw.wa.gov
Statewide GIS Hydro Data Unification	WDFW, ECY, and DNR are working to merge separate GIS hydro datasets into a shared dataset. Completed a pilot in 2007-09. Second pilot scheduled for completion 4th quarter 2010. May begin to implement in 2009-11	Funding has been secured for the first steps of the conversion. The cost estimate for WDFW is $200,000. $80,000 (funds from WSDOH and USGS) has been secured to start work in FY2011. Cost of work in FY2012 may have to be absorbed if addn. funding is not identified.	Agency support, 2 FTEs	Will require internal business process changes	Conversion work should begin in early 2011	Multiple agency and external stakeholders	Healthy, diverse and sustainable fish and wildlife populations. GIS efficiencies as identified in Governor's Executive Order 09-07	Brodie Cox Fish Program Data Systems Manager (360) 902-2776 Brodie.Cox @ dfw.wa.gov	Andy Weiss Fish Program GIS Manager (360) 902-2487 Andy.Weiss@dfw.wa. gov

Title	Description	Cost Estimate	FTE's	Impact on Existing Investments	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Increased IT Security Require-ments	WDFW is seeking additional funding to comply with new IT security policies that contain more specific and detailed requirements that agencies must comply with by August 2012.	A decision package is currently being presented requesting $478,600 for the 2011-13 Biennium with ongoing costs of $417,200.	Agency support, .5 FTEs	Will require internal business process changes	Conversion work should begin in July of 2011 and be completed before December 2011.	Multiple agency and external stakeholders	Implement processes that produce sound and professional decisions (Implement ISB Policy 401-S4)	Joe Stohr Deputy Director (360) 902-2650 joe.stohr@dfw.wa.gov	Michael DeAngelo Chief Information Officer (360) 902-2320 Michael.DeAngelo@dfw.wa.gov

END OF SECTION 5

6. Post-Implementation Project Review and Annual Certification

A. Post-Implementation Project Review: Microsoft Migration Project

1. Executive Summary

Staff from the WDFW IT Services Division have upgraded all agency PC's and laptops to use:

- Microsoft Vista Operating System
- Microsoft Outlook/Exchange Email
- Microsoft Office 2007
- Microsoft Enterprise Active Directory

Over the course of the past three years, approximately 1700 computers across the state at headquarters, regional offices and remote locations have been upgraded.

2. Background

In the past, WDFW used Novell GroupWise email on a Novell Netware network. Many of our computers were still using Microsoft Windows 2000 and Office 2003. Seeing the need to standardize our environment with the majority of other state government agencies, the legislature approved funding for this upgrade and conversion.

3. Project Goals and Objectives

The goals of the Microsoft Migration Project are to:

- Standardize E-Mail and Office Products
- Improve Communication Between Agencies
- Improve IT Support for Desktop Products

E-Mail and Office are Standardized – WDFW Employees across the state are all using the same version of Microsoft Office. The Outlook E-Mail software is the same as almost all Washington State agencies.

Communication Between Agencies is improved – Enterprise Active Directory allows easy communication between WDFW and other agencies using Active Directory.

IT Desktop Support is improved –New Microsoft tools (i.e. Configuration Manager) vastly improve IT's ability to support our users remotely.

4. PIR Measurement Criteria

a. Schedule

- The project began in early 2007.
- Olympia area was completed in January 2008.
- WDFW Regional offices were completed in the Fall of 2008
- WDFW remote offices were completed in July of 2010
- Over 1700 computers in almost 400 locations were upgraded.

b. Actual Costs

- The Microsoft Migration total budget was $1,380,000 and was completed within budget.

c. Actual Functionality and Benefits

- All expected functionality and benefits were realized.

Submitted by
Mike Keeling
Deputy IT Manager
Microsoft Migration Project Manager

B. Annual Certification

2010 ISB IT Portfolio Certification for Department of Fish and Wildlife

My agency has reviewed and updated its IT Portfolio information in the IT Portfolio Management System (ITPMS) application. ITPMS can be found at http://ssvapolyptmg1p.ssv.wa.lcl/niku/app. NOTE: To be compliant, agencies must provide updated information in the following sections of ITPMS: IT Portfolio overview; agency strategic business plan; GIS resources (if applicable); personal & workgroup computing; projects; applications; and, databases.	☒ Yes ☐ No
My agency has entered its actual IT-related expenditures and inventory information for Fiscal Year 2010 into the IT Portfolio Management System.	☒ Yes ☐ No
My agency has updated its projected and budget IT-related expenditures and inventory for Fiscal Years, 2011, 2012, and 2013 into the IT Portfolio Management System.	☒ Yes ☐ No
My agency has updated its applicable geographic information systems (GIS) information into the IT Portfolio Management System.	☒ Yes ☐ No
My agency has updated and tested its disaster recovery/business resumption plan.	☒ Yes ☐ No
My agency has reviewed and updated its IT Security Program.	☒ Yes ☐ No
If you completed your security audit between September 1, 2009 and August 31, 2010, please provide the completion date:	_____

Your signature below indicates your agency has complied with the ISB IT Portfolio Policy and Standards:

8-26-10
Agency Executive Signature Date

Philip Anderson
Print Name

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Appendix A:

Washington Department of Fish and Wildlife
2009-2015 Strategic Plan

This document will provide the reader with a complete listing of the WDFW's strategic plan goals, objectives, activities and performance measures.

The Strategic Plan provides additional detail to complement the summary information appearing in Section 2 of the IT Portfolio.

The 2009-2015 Strategic Plan is also available as a separate download from the *"Strategic Planning"* page on the WDFW web site:
http://wdfw.wa.gov/about/strategic_plan/

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WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

2009-2015
STRATEGIC PLAN

Washington Fish and Wildlife Commission

The Washington Fish and Wildlife Commission oversees the Washington Department of Fish and Wildlife. The commission consists of nine members, each serving six-year terms. Members are appointed by the governor and confirmed by the senate. Three members must reside east of the summit of the Cascade Mountains, three must reside west of the summit, and three may reside anywhere in the state. However, no two commissioners may reside in the same county.

While the commission has several responsibilities, its primary role is to establish policy and direction for fish and wildlife species and their habitats in Washington. The commission appoints and supervises the director and monitors policy implementation of the goals and objectives established by the commission. The commission also classifies wildlife and establishes the basic rules and regulations governing the time, place, manner and methods used to harvest or enjoy fish and wildlife.

Commission Members

Chair: Jerry Gutzwiler, Wenatchee
Term of Office: 03/15/05 – 12/31/08

Vice Chair: Miranda Wecker, Naselle
Term of Office: 01/01/07 - 12/31/12

Dr. Kenneth Chew, Seattle
Term of Office:
01/01/05 - 12/31/10

Gary Douvia, Kettle Falls
Term of Office:
01/15/07 - 12/31/12

Conrad Mahnken, Bainbridge Island
Term of Office:
11/04/05 - 12/31/10

Chuck Perry, Moses Lake
Term of Office:
01/01/07 - 12/31/12

Shirley Solomon, Mt. Vernon
Term of Office:
03/15/05 – 12/31/08

George Orr, Spokane
Term of Office:
08/08/07 - 12/31/10

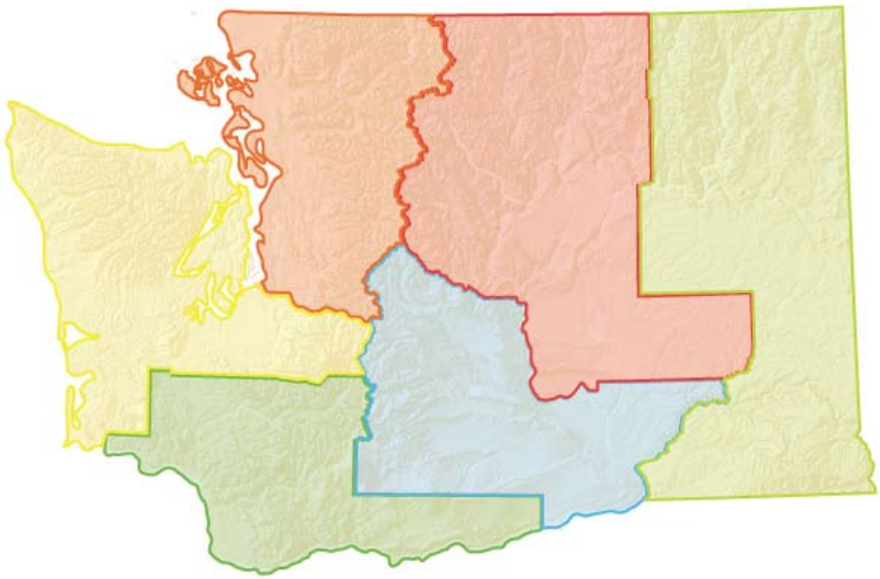
Western Washington - Vacant
Term of Office:
01/21/03 - 12/31/08

Susan Yeager
Executive Assistant

Washington Department of Fish and Wildlife

Strategic Plan

2009 – 2015



Jerry Gutzwiler
Fish and Wildlife Commission Chair

Jeff Koenings, Ph.D.
Director

June 13, 2008

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Introduction

The Washington Department of Fish and Wildlife (WDFW) is dedicated to preserving, protecting, perpetuating and managing the state's fish and wildlife resources. We do this by applying an underlying conservation ethic to our work while providing commercial and recreational opportunities that result in economic benefits to local communities and the citizens of Washington state. Our much-treasured quality of life in the Pacific Northwest depends on healthy and thriving fish and wildlife populations. As the steward of these resources, WDFW is committed to continue building a solid and sustainable foundation that supports both resource and human needs now and in the future. To fulfill this commitment and achieve our mission, WDFW will continue to:

- Identify, seek funding and fix ailing facilities and infrastructure.
- Focus on developing partnerships with other agencies and organizations, tribes and citizens that make us effective and efficient.
- Educate youth and adults to foster a stewardship ethic toward fish and wildlife.
- Seek policy support and stable funding to manage the increased demands placed on fish and wildlife resources in the state.

To help achieve these goals in increasingly challenging times, the department has undergone several administrative changes. The Washington Fish and Wildlife Commission is providing more oversight and playing a key role in setting department policy and direction.

WDFW's executive leadership team has also expanded from a one-deputy to a two-deputy structure to sharpen responsibilities and promote the changes that are necessary to increase the effectiveness of the department. The new positions, which report to the director, include the deputy director of Resource Policy and the deputy director of Operations. As members of the leadership team, they are accountable for department performance at all levels.

Mission Statement

The Washington Department of Fish and Wildlife (WDFW) serves Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable and wildlife-related recreational and commercial opportunities.

Legislative Declaration

As defined in Chapter 77 RCW, WDFW is Washington's principal agency on species protection and conservation.

Legislative mandate (RCW 77.04.012):

"Wildlife, fish, and shellfish are the property of the state. The commission, director, and the department shall preserve, protect, perpetuate, and manage the wildlife and food fish, game fish, and shellfish in state waters and offshore waters.

The department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. In a manner consistent with this goal, the department shall seek to maintain the economic well-being and stability of the fishing industry in the state. The department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state.

The commission may authorize the taking of wildlife, food fish, game fish, and shellfish only at times or places, or in manners or quantities, as in the judgment of the commission does not impair the supply of these resources.

The commission shall attempt to maximize the public recreational game fishing and hunting opportunities of all citizens, including juvenile, disabled, and senior citizens.

Recognizing that the management of our state wildlife, food fish, game fish, and shellfish resources depends heavily on the assistance of volunteers, the department shall work cooperatively with volunteer groups and individuals to achieve the goals of this title to the greatest extent possible.

Nothing in this title shall be construed to infringe on the right of a private property owner to control the owner's private property."

Department Goals

To achieve its mission, WDFW will continue to focus its activities on the following six goals:

I. Achieve healthy, diverse and sustainable fish and wildlife populations.

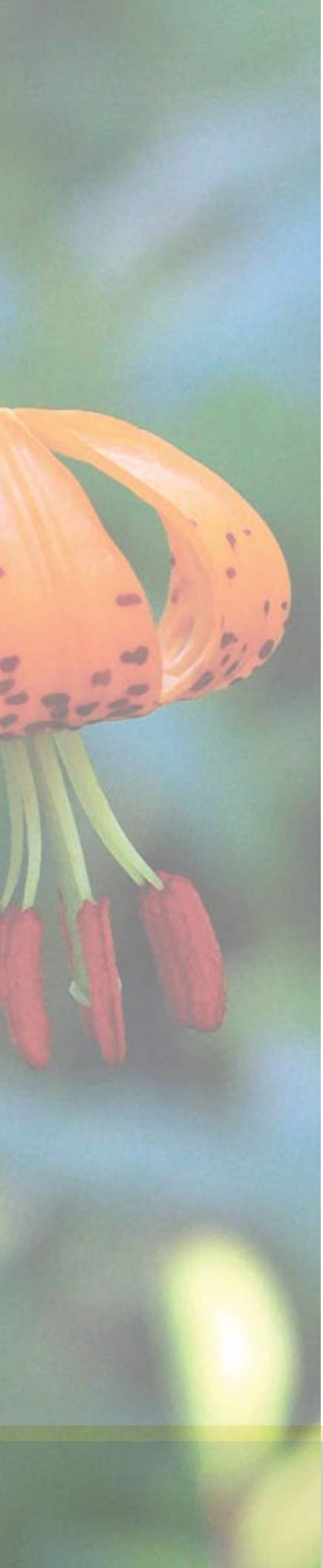
II. Ensure sustainable fish and wildlife opportunities for social and economic benefit.

III. Ensure effective use of current and future financial resources in order to meet the needs of the state's fish and wildlife resource for the benefit of the public.

IV. Implement processes that produce sound and professional decisions, cultivate public involvement and build public confidence and agency credibility.

V. Promote development and responsible use of sound, objective science to inform decision-making.

VI. Create an environment that nurtures professionalism, accountability, enthusiasm and dedication in order to attract, develop and retain a workforce that can successfully carry out the mandate of the department.



Working on Statewide Initiatives

WDFW supports Governor Chris Gregoire's initiatives to provide economic vitality and environmental quality that will help create a sustainable and prosperous future for Washington state.

As the steward of the state's fish and wildlife populations, WDFW is a strategic partner in several important statewide initiatives aimed at restoring and protecting these resources.

Recovering salmon and steelhead populations

As icons of the Pacific Northwest, salmon and steelhead are integral to the region's ecological, commercial, recreational and cultural identity. The health of our native salmon and steelhead reflects the health of our ecosystem. Stocks of both species are now listed as endangered or threatened, requiring the combined efforts of organizations and individuals to ensure their recovery. One example of WDFW's role in restoring our wild fish is the development of a focused, long-term approach called Salmon and Steelhead in the 21st Century. The key objectives are to:

- Protect and restore Washington's wild fish populations.
- Protect and restore habitat and ecosystem functions necessary for salmon survival and recovery.
- Manage fishery and hatchery programs to support rebuilding of wild populations and sustainable fisheries.
- Conduct tribal co-management efforts in a cooperative environment with identified goals.
- Create an internal support network that ensures multi-disciplinary, cross-program coordination, effective communication and decision-making.
- Create an external support network to enhance WDFW's ability to recover wild populations and maintain sustainable fisheries.

WDFW also plays an important role in the development and implementation of salmon recovery plans at the watershed level. Through a collaborative process, WDFW watershed stewards and area habitat biologists provide technical assistance to develop and implement on-the-ground projects that restore habitat and remove fish passage barriers.

Addressing climate change

Increasing evidence shows that global warming and climate change are significantly impacting the earth's environment, adding to the current threats on fish and wildlife species and their habitats. The results of climate change are expected to include increased water temperatures in streams, rivers and lakes; loss of freshwater and wetland habitats; inundation of coastal habitats; increased temperatures; drought; increased wildfires; and expansion of invasive species, pests and diseases. Due to these wide-ranging impacts, natural ecological systems may lose their resiliency and become unable to support a number of fish and wildlife species.

The state is taking action to respond to anticipated environmental impacts associated with climate change. One significant step taken by the Legislature was the passage of the state's Climate Change Act in 2008. At WDFW, an internal planning process is in place to assess the impacts on fish and wildlife and their habitats and to develop a strategic response. WDFW is pursuing strategies that incorporate climate change considerations with the aim of:

- Maintaining healthy and sustainable fish and wildlife populations.
- Ensuring that climate change effects do not push at-risk species closer to extinction.
- Maintaining healthy ecosystems to prevent the loss of critical ecological functions, such as protective cover and wildlife forage.
- Following sound science to make resource management decisions in regard to climate uncertainty.

During the 2009-11 biennium, WDFW will continue to work with the state Department of Ecology and other partners to implement a comprehensive research and preparation program to ensure that fish and wildlife impacts are addressed as the state prepares climate change solutions.

The statewide plan identifies research and monitoring requirements and addresses protection of ecosystems, biodiversity, threatened and endangered species and species of economic importance. Implementation will likely require additional resources if recommendations include major research initiatives or broad-scale changes to existing monitoring programs. Funding also will be required if specific infrastructure modifications are necessary to improve department facilities.

In the long term, WDFW must ensure that fish and wildlife are protected and preserved and that their needs are addressed in statewide climate research, preparation and adaptive management efforts. We must increase our knowledge and understanding about the risks to ecosystems and species to help develop policy, direction and action plans that will guide the future management of fish and wildlife during changing and uncertain times.

Mapping the future of Columbia Basin's water supply

Changes in the climate, along with an increasing demand for water, are compromising the state's ability to effectively manage its water resources in key areas of the state. To address this situation, the Legislature and Governor Gregoire established the Columbia River Basin Water Management Program, which directs the Department of Ecology to develop new water supplies through water storage, conservation projects, voluntary regional water management agreements and other methods. The goal is to allow access to the river's water resources while providing adequate protection for endangered salmon and other wildlife species.

WDFW participated on Ecology's implementation team to help shape policy alternatives and ensure an appropriate balance of in-stream and out-of-stream water use. In addition, WDFW staff will develop and review environmental documents, forecasting methods and implementation options. The department also will provide baseline biological information and conduct research to help define program costs and benefits to fish and wildlife.

With the passage of the bill, one-third of all newly stored water is now allocated to support stream flows for fish; two-thirds will be available for new out-of-stream uses, such as farming, industry and municipal growth.

Restoring Puget Sound

WDFW plays a major role in preserving and restoring the health of Puget Sound's ecosystem, from providing scientific guidance to reviewing applications for hydraulic project permits. WDFW area habitat biologists issue Hydraulic Project Approval (HPA) permits to property owners for construction projects in or near water where fish are affected. WDFW is actively involved in salmon recovery efforts led by local watershed groups who acquire and restore habitat and remove fish passage barriers in waters connected to Puget Sound. Wildlife biologists conduct research and provide expertise on many of the area's wildlife species, from marine mammals to threatened sea birds.

Staff members also work closely with government agencies, tribes, organizations and citizens on numerous projects to preserve estuaries and nearshore habitat, while WDFW employees contribute to the efforts of the Puget Sound Partnership, a state agency established in 2007 by Governor Gregoire to help restore this unique body of water.

Preserving biological diversity

Washington is rich in natural diversity, which provides the state with many benefits, including economic returns from agriculture, forestry, fishing and recreation. However, due to habitat degradation, expanding population, land development, invasive species and climate change Washington risks losing much of its native plant communities and wildlife species. Recognizing the state's declining environmental health, the Legislature established a statewide biodiversity planning effort in 2002 to safeguard the state's natural heritage. The Washington Biodiversity Council, whose members represent a variety of interests across the state, was formed in 2003 to create a long-term conservation strategy and implementation plan. As a voice on the council, WDFW plays a key role by providing expertise and knowledge on the state's fish and wildlife species and their habitats. Since its inception, the council has completed the Biodiversity Conservation Strategy that incorporates biodiversity protection within a multitude of programs including land-use planning, landowner conservation incentives and funding programs.

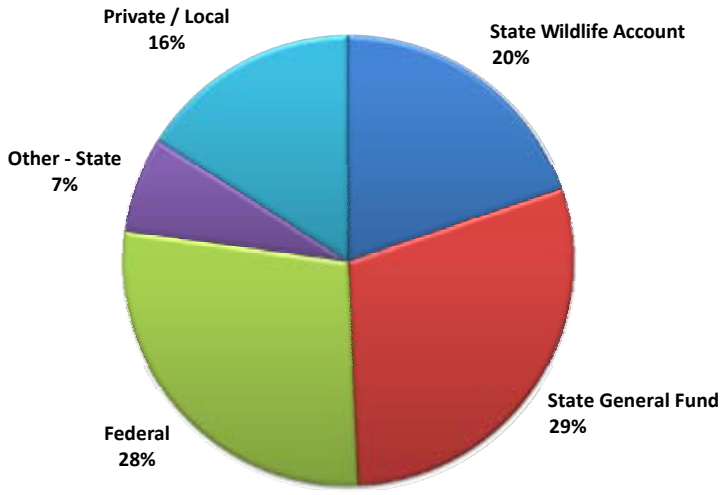
Assessment of Internal Capacity

WDFW employs approximately 1,600 to 1,800 people (depending on the time of year) with a 2007-09 biennium budget of $347 million in operating funds and $78 million in capital funds. WDFW maintains six regional offices located in Montesano, Spokane Valley, Ephrata, Vancouver, Yakima and Mill Creek, while the department's headquarters is located in Olympia. Additionally, WDFW sells recreational hunting and fishing licenses through a network of 554 private vendors located in communities throughout the state.

Investing in WDFW and outdoor recreational activities provides economic benefits to Washington's rural communities as urban and suburban fishers, hunters and wildlife enthusiasts pursue outdoor activities across the state. On average, recreational activities provide $101 in economic benefit for every $53 of investment in WDFW. The financial health of the department is partially dependent on the ability of the state to provide ample hunting, fishing and viewing opportunities to the recreational user. Other factors that influence the department's financial health are the overall state of the economy and the funding expectations in the state budget.

Financial health

The WDFW budget for the 2007-09 biennium is $425 million ($347 million in operating funds and $78 million in capital funds), and consists of five major funding sources including the State General Fund, the State Wildlife Account, federal funds, private / local funds and multiple state-dedicated accounts. This chart shows the department's 2007-09 expenditure plan broken out by these five major funding sources.



Funding challenges

Within the five major funding categories, WDFW manages 22 different funds as well as another 49 dedicated sub-accounts. While there is flexibility for use of the State General Fund and part of the State Wildlife Account, other funds and dedicated sub-accounts are appropriated for specific purposes and must conform to the authorizing statute and/or contract controlling the account. Furthermore, because 70.6 percent of WDFW's funding comes from federal, private and local sources and recreational license sales, which can vary from year to year, the department does not have a stable revenue stream.

While WDFW strives to fulfill the needs of its stakeholder groups by providing recreational and commercial opportunities, the department has limited resources to meet all of these needs. And although the WDFW budget is larger than in previous years, it must also provide for increased costs related to cost of living increases, federal and state court decisions, species protection, fuel for department vehicles, legislative provisos, and other initiatives.

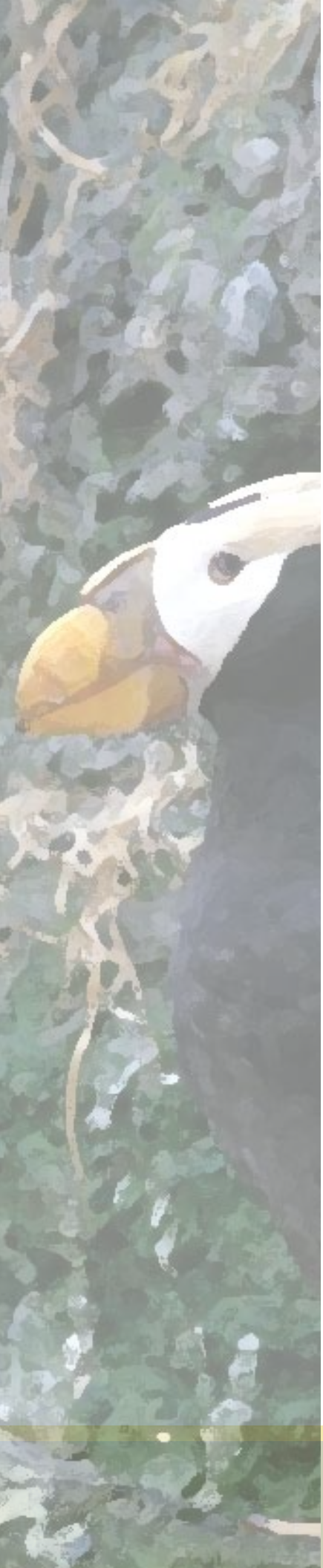
These challenges limit WDFW's ability to meet all operational needs, expand existing programs or implement new initiatives. In the coming biennium, the department will be expected to do more with less and to fund initiatives within existing resources.

The department maybe facing significant budget challenges in State Wildlife Account, State General Fund and federal funding levels.

State Wildlife Account

The State Wildlife Account is subject to volatility. Fund revenues depend on recreational license sales that fluctuate due to weather, habitat conditions and numerous other factors. The majority of this account's revenue is collected from license sales in April, May and June — the last three months of the fiscal year. If the amount of revenue from license sales is not adequate, there is little time to recover at the end of the fiscal year, or at the end of the biennium.

Additional analysis has been undertaken to account for and manage the dedicated and non-dedicated amounts within the overall account. Dedicated amounts are funds with a specific, statutorily defined use while non-dedicated funds can be used for any purpose authorized by the account. Sixteen dedicated sub-accounts are included within the overall State Wildlife Account balance.



Since the 2001-03 biennium, the fund balance within the State Wildlife Account has been reduced significantly. Based on current revenue projections and budget assumptions, the State Wildlife Account is expected to be at or near zero balance at the beginning of the 2009-11 biennium. The projected balance may be insufficient for the department to manage future activities at current staffing levels.

State General Fund

A goal of the Washington Fish and Wildlife Commission and WDFW is to have secure and stable funding to meet the department's core mission. With the state potentially facing a general fund deficit of $2.4 billion (current projection), WDFW is at significant risk of losing funding for many critical programs. WDFW received roughly $110 million from the State General Fund for the 2007-09 biennium. This funding is critical for implementing department operations and supports both commercial and recreational fishing throughout the state. While $110 million is a considerable amount of money, it should be noted that WDFW's funding combined with all other natural resource agencies (Department of Ecology, Washington State Parks, Department of Natural Resources, Department of Agriculture, the Recreation and Conservation Office, the Puget Sound Partnership), makes up only 1.4 percent of the entire state general fund budget ($460 million out of more than $29.7 billion).

Federal funding

Federal funding for programs and services will be variable during the 2009-11 biennium. For instance, President Bush's proposed budget for fiscal year 2009 reduces the appropriation to the Pacific Coastal Salmon Recovery Fund (PCSRF) from $67.5 million (fiscal year 2008 appropriation), to $35 million. As recently as fiscal year 2006, PCSRF was appropriated $90 million. Appropriations for Mitchell Act hatchery facilities continue a long-term decline.

Funding for other programs, such as the Puget Sound Nearshore Project and a variety of landowner stewardship programs has remained stable, while funding for the Puget Sound Partnership and important formula funding programs has increased.

Strategies to respond to funding challenges

WDFW is responding to financial challenges by undertaking the following:

WDFW revenue study

The department is analysing the current licensing and permit fee structure to determine changes required to stabilize revenues and prevent further erosion of buying power. Additional ideas for enhancing revenues are also under review.

Efficiency of existing expenditures

Existing expenditures are being scutinized to prioritize activities and determine savings through efficiency, consolidation and streamlining.

Strategic budget planning

WDFW requests for new funding are being focused on several specific areas for the 2009-11 biennium including salmon and steelhead recovery, WDFW land and habitat improvements, and human/wildlife conflict management.

Consultant recommendations

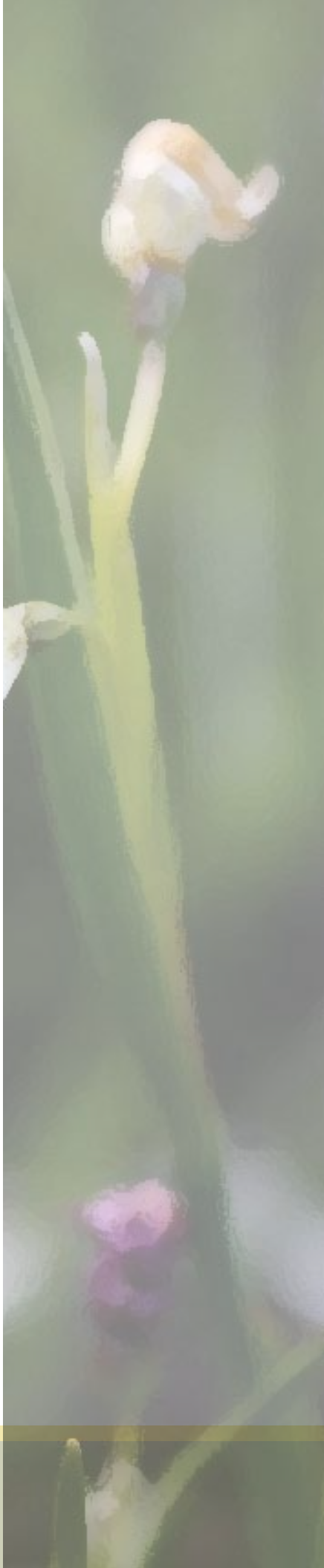
A new capital program plan is being implemented based on the results of an independent study by Berk & Associates that reviewed WDFW's capital budget development and execution and monitoring processes. Through this process, WDFW discovered that engineering staffing and operational activities did not always align with the department's needs. The department is in the process of implementing recommendations from the analysis and realigning staff to better meet funding and work demands.

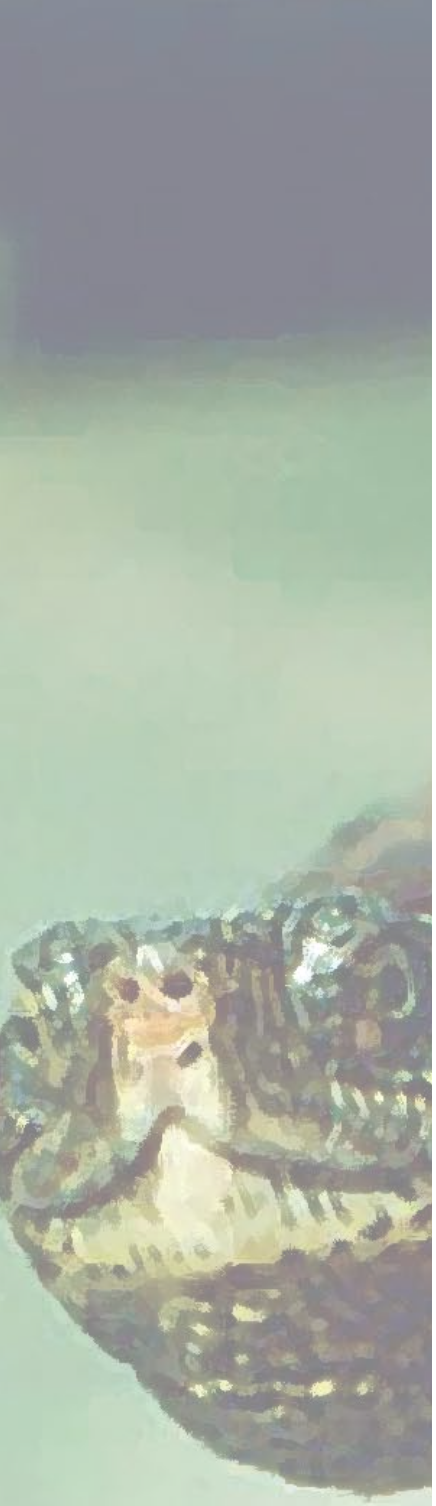
Information Technology

Information Technology (IT) provides the infrastructure, data management and business support applications that allow WDFW to effectively deliver electronic information to the public and department employees. These IT tools and methods enable WDFW to carry out its mission across all goals and objectives.

Consistent with Washington's 2008-2014 State Strategic IT Plan, WDFW's strategic direction for information technology focuses on:

- Investing in IT systems that are consistent with state standards.
- Promoting data sharing with other agencies and partners.
- Using common practices and standards within WDFW and other agencies.
- Improving user experience through better integration.





Additional strategies for WDFW include:

- Improving communications through network and web site improvements.
- Improving IT services for staff, including remote users.
- Continuing to implement better IT systems for capital programs, commercial licensing, environmental permitting and resource management.
- Improving geographic and land information systems applications and interagency processes for sharing and developing data.
- Implementing a more structured approach to improve department data management standards.

In fiscal year 2009, WDFW will complete the agency migration to the state Enterprise Active Directory, the state Exchange email system and access to state data center facilities. WDFW also will continue to work with the state's Department of Information Services (DIS) to identify actions that improve the use of common systems.

While WDFW is moving forward with applications that are coordinated with other agencies by using common architecture and data stores, additional work is needed to further integrate applications and improve data management practices.

WDFW will continue to cooperate with DIS to evaluate department systems and architecture, consistent with long-term DIS direction. However, the department may need major funding to convert its application architecture. WDFW also will evaluate overall management of electronic data to ensure that retention meets state archive standards. It is likely that the new rules from the State Archives Office for managing electronic information will have a major impact on agency practices.

Strategic Direction

The department has created the following 11 objectives aligned with the department's six goals:

- Protect and restore wild fish populations.
- Protect state waters by managing aquatic invasive species.
- Protect and perpetuate wildlife species through sound wildlife management.
- Protect and restore habitat and ecosystem functions.
- Improve regulatory permitting processes and outcomes.
- Protect and promote commercial and recreational wildlife-related opportunities.
- Continue the Capital Project Improvement Process.
- Improve public involvement and appreciation of fish and wildlife.
- Use the best-available science.
- Hire and promote the best candidates.
- Provide a safe and healthful work environment.

WDFW works to reach these 11 objectives through related strategies and activities outlined on the following pages. Performance measures are also listed for individual strategies. Quantitative milestones for each performance measure are included in the department's work plans and reviewed in department progress reports or GMAP discussions.

Goal I: Fish and Wildlife

Achieve healthy, diverse, and sustainable fish and wildlife populations while supporting their habitats

Objective: Protect and restore wild fish populations.

Strategy: Complete the 21st Century Salmon and Steelhead framework and start implementing key actions.

Activities:

- Determine population status and define goals.
- Compile and define "All-H" (habitat, hatchery, harvest and hydropower) integration actions.
- Support coordinated implementation of local salmon recovery priorities and land-use planning.
- Monitor habitat status.

Performance Measures:

- Percentage of salmon populations in key selected sites that meet recovery goals.
- Percentage of ESA-listed salmon and steelhead major population groups monitored to assess the ESA de-listing criteria: abundance productivity.
- Compliance rate for all North of Falcon wild fish release regulations.
- Number of enforcement hours directed toward anadromous and native resident salmonids.

Strategy: Increase understanding of marine fish species conservation techniques and habitat needs.

Activities:

- Design and implement a rockfish research plan that will enhance the understanding and management of depleted rockfish species (such as yelloweye rockfish).
- In cooperation with NOAA Fisheries and constituency groups, explore the potential benefits and risks associated with artificial enhancement of lingcod in Puget Sound consistent with the Fish and Wildlife Commission's Marine Fish Enhancement Policy.
- Working with the Puget Sound treaty tribes and our constituents, complete a Puget Sound Rockfish Conservation and Recovery Plan.
- Initiate site fidelity and patterns of ocean yelloweye residency and habitats study.

Performance Measures:

- Conduct one remotely operated underwater vehicle (ROV) pilot survey of coastal yelloweye habitat to determine optimal survey design.
- Number of sub-basin ROV surveys of rocky habitat in Puget Sound to determine quality/quantity of rockfish habitat.
- Complete a Puget Sound rockfish conservation and recovery plan.
- Provide the Fish and Wildlife Commission with an annual update of the rockfish research plan activities every August.

Strategy: Ensure that native resident fish and freshwater shellfish populations are healthy, stable and self-sustaining.

Activities:

- Manage native resident fish and freshwater shellfish to ensure conservation objectives are met, specifically focusing on bull trout, native trout species, native non-game fish, freshwater shellfish and sturgeon.
- Develop a plan, including actions and timelines, priorities, and costs, to peer review management of native resident fish populations.

Performance Measures:

- Percent of bull trout populations with healthy status.

Strategy: Modernize hatchery practices.

Activities:

- The department will develop and implement a 10-year plan to complete hatchery reform measures consistent with the Hatchery Scientific Review Group's (HSRG) recommendations.
- Ensure that 100 percent of the genetically integrated chinook, coho, and steelhead hatchery programs in Puget Sound and along the Washington coast will incorporate natural-origin broodstock where returning natural-origin fish are available and can be identified.

Performance measures:

- Percentage of chinook, coho, and steelhead intended for harvest that are marked.
- Percentage of genetically integrated hatchery programs achieving benchmarks for implementation of the HSRG's guidelines for broodstock management.
- Number of hatchery facilities meeting inspection and maintenance schedule for emergency response systems (pumps, alarms, generators).
- Percentage of hatchery programs operated in a manner consistent with ESA requirements.
- Percentage of hatchery facilities renovated to meet instream flow standards.
- Percentage of hatcheries that modified fish trap and intake screen system replacements to ensure fish passage compliance.

Strategy: Increase the percentage of mass-marked salmon and steelhead.

Activity:

- Ensure that 100 percent of the chinook, coho, and steelhead out-planted or released from WDFW or cooperative facilities for fishery harvest are marked with an adipose fin clip (except as modified by tribal agreements).

Performance measures:

- Percentage of fall chinook externally marked and released on the Washington coast.
- Percentage of fall chinook externally marked and released in Puget Sound.
- Percentage of salmon and steelhead marked and released in Columbia River.

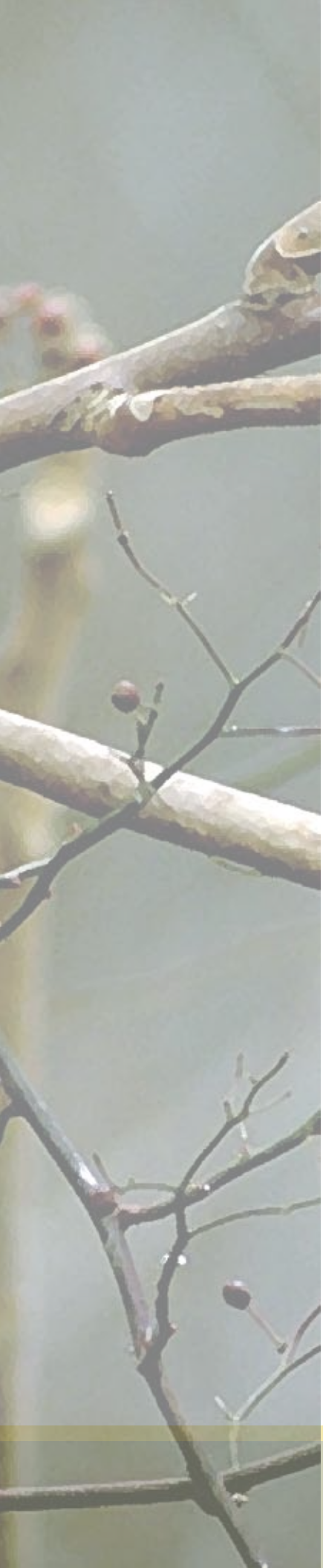
Strategy: Increase the number of selective fisheries.

Activities:

- Fully implement the five-year Puget Sound Selective Fishery Plan.
- Assess the estimated mark rates and develop regional selective fishery plans for the coast and the Columbia River accordingly.
- Work closely with the treaty tribes and stakeholders during implementation of current plans, including acting in a manner that is consistent with the 1997 federal court's mass marking and selective fishing stipulation.
- Expand the current membership of the Selective Fishery Cabinet and work with the appropriate members of the cabinet in developing the two new regional plans.
- Test and monitor new means for selective harvest to reduce impacts on wild fish.

Performance measures:

- Percentage of Puget Sound marine areas with mark-selective fisheries.
- Number of ESA populations that meet fishery conservation objectives.
- Number of additional selective fishery methods developed.



Objective: Protect state waters by managing aquatic invasive species.

Strategy: Pro-actively manage aquatic invasive species and enforce related state statutes.

Activities:

- Coordinate and work with other state and federal agencies to avoid the introduction of aquatic invasive species into state waters, including efforts to manage ballast water discharge.
- Continue to enforce state statutes and regulations designed to prevent the introduction of invasive species.
- Implement ballast water management program to prevent the introduction of aquatic invasive species from unexchanged or untreated vessel discharges.
- Implement the recreational and commercial watercraft pathway management program to prevent the introduction or spread of aquatic invasive species from infested watercraft transported over land or by water.
- Implement the tunicate management program to prevent the introduction of new populations, contain established populations, and control or eradicate established populations in marine waters.
- Implement the Atlantic salmon assessment program by surveying freshwater streams for the presence of juvenile or adult Atlantic salmon.

Performance measures:

- Percentage of qualifying vessels entering Washington waters inspected for ballast water compliance.
- Number of inspections of watercraft for aquatic invasive species.
- Inspect 90 percent of high-risk vessels entering Washington waters for ballast water compliance.
- Inspect at least 200 boats per month (per seasonal FTE) for both animal and plant aquatic invasive species at high-use boat launches and fishing tournaments.
- Number of civil or criminal citations for violations of aquatic invasive species statutes and rules.
- Begin surveying 145 marinas for the presence of invasive tunicates.
- Attempt eradication of invasive tunicates at Pleasant Harbor or other marinas.

Objective: Protect and perpetuate wildlife species through sound wildlife management.

Strategy: Manage game species to support healthy populations and sustainable recreational opportunities.

Activities:

- Develop research proposals to identify factors limiting growth of elk herds not meeting population objectives.
- For Blue Mountains and Colockum herds, develop action plans and timeframes to meet herd population goals identified in their respective plans.
- Develop a plan, with timeframes and actions defined, to improve habitat on Mount St. Helens elk winter range for Mount St. Helens' elk herd.
- Complete the white-tailed deer species plan, including incorporation of independent biological peer-review recommendations.
- Maintain elk populations through the winter and reduce elk damage to private lands.

Performance measures:

- Number of wildlife species recovery and management plans completed.
- Percentage of elk herds that meet population objectives.
- Tons of feed used per year.
- Number of deer and elk samples collected that are screened for chronic wasting disease.
- Wild bird samples screened for avian influenza or West Nile virus.

Strategy: Develop Wildlife Action Plans for each eco-region to implement the Comprehensive Wildlife Conservation Strategy.

Activities:

- Continue to re-examine and redefine the relative priority of wildlife species and associated habitats.
- Coordinate multi-agency land acquisition for wildlife habitat with other state and local agencies through the Recreation and Conservation Office (RCO).
- Accelerate coordinated planning for species and habitat conservation among federal and state land management agencies.
- Complete local habitat assessments and develop new and better databases and mapping products for local governments to use in growth management planning.
- Better integrate management of marine and aquatic ecosystems with terrestrial ecosystems, both within WDFW and among state and federal agencies.
- Incorporate identified species and habitat conservation priorities into operational work plans within WDFW and other conservation partners.
- Incorporate specific conservation actions into WDFW's cost accounting systems to help develop and monitor project budgets and priorities.

Performance measures:

- Number of key activities in the endangered species recovery plans implemented.
- Number of native species status reviews completed.
- Percentage of threatened and endangered wildlife species showing increases in population numbers.

Objective: Protect and restore habitat and ecosystem functions.

Strategy: Identify and repair barriers to fish passage.

Activities:

- Inventory and corrections of stream obstructions, fish passage barriers and unscreened diversions.
- Salmonid habitat assessment.
- Statewide fish passage and screening database updates.
- Surface water diversion fish screening consultation.
- Fishway inspection and maintenance consultation.

Performance measures:

- Number of fish passage barriers in Washington state corrected by agencies and landowners.
- Number of fishways opened for fish passage on WDFW lands.
- Number of WDFW fishways inspected.
- Number of new miles of streams opened annually by removing man-made barriers statewide.
- Number of fish screens fabricated and/or installed by the agency to meet state fish protection standards.

Strategy: Restore habitats through restoration and enhancement projects.

Activities:

- Solicit and evaluate proposals for habitat restoration projects, consistent with an adaptive management approach and regional ecosystem restoration planning.
- Develop and oversee contracts to implement these projects.
- Evaluate project performance to inform future solicitation and contracting activities.
- Identify opportunities and direct project-based learning to increase the effectiveness and efficiency of restorative treatments.
- Coordinate outreach and education that support high-quality project implementation.

Performance measures:

- Number of technical assistance requests regarding salmon recovery that were met from watershed groups, Lead Entities, Regional Fisheries Enhancement Groups (RFEGs), project sponsors, and others.
- Number of watershed planning units that receive instream-flow science, data and technical assistance.
- Number of project contracts successfully executed.
- Acres and linear feet of habitat restored.

Strategy: Maintain and enhance department lands.

Activities:

- Create a strategic plan, in consultation with the WDFW Lands Management Advisory Council and other affected interests, that addresses the operation and maintenance of department owned/managed lands.
- Develop maintenance standards (for vehicle parking, restrooms, boat launch facilities, signs, roads, etc.) for all access sites and provide site evaluations to measure annual access-site improvements and stewardship.
- Initiate monitoring and evaluation of biodiversity for all WDFW owned and controlled lands.
- Define operational excellence standards for all owned and managed habitat lands, incorporate them into wildlife area management plans and add them to WDFW's proposed Habitat Conservation Plan for wildlife areas.

Performance measures:

- Number of wildlife area management plans incorporating operational excellence standards.
- Acres (in thousands) of noxious weeds controlled on WDFW owned/managed lands.
- Number of acres of important habitat for all species protected through conservation easements or land acquisitions by the agency.
- Number of corrective action projects completed for the state's "Forest & Fish" road maintenance and abandonment plans.

Objective: Improve regulatory permitting processes and outcomes.

Strategy: Develop new business methods for processing Hydraulic Permit Approval (HPA) permit applications.

Activities:

- Develop a web-based application program for processing HPA permit applications.
- Participate in the "Integrated Project Review and Mitigation Tools Initiative" with federal, state and local governments.
- Work with multiple local, state and federal agencies to develop an easily understood Joint Aquatic Resources Application process, in concert with the Governor's Office of Regulatory Assistance.

Performance measures:

- Number of HPA projects monitored for compliance with conditions.
- Number of HPAs checked per year or the number of officer hours spent on HPA compliance.
- Customer satisfaction rating of the HPA permitting process.
- Number of days to issue or deny an HPA permit.

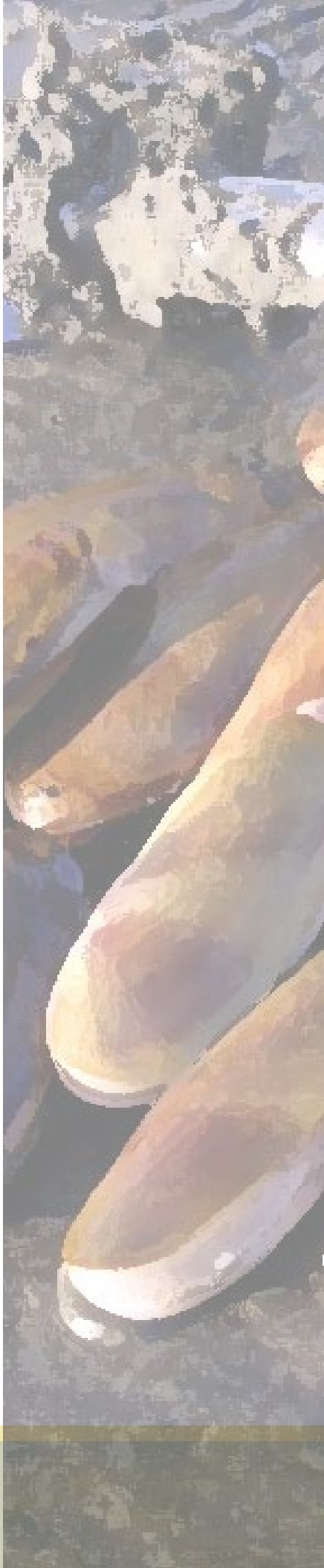
Strategy: Provide technical assistance associated with environmental regulatory processes.

Activities:

- Develop technical guidance documents.
- Train for fish passage and screening inventory and habitat assessment, culvert design for fish passage and integrated stream bank protection guidelines (ISPG).
- Consult, inform and educate people within and outside the department on restoration and protection of aquatic habitats.
- Increase fish and wildlife protection by commenting and providing department expertise through regulatory processes and requests for reviews of technical documents, and other issues involving environmental engineering.

Performance measures:

- Number of on-site visits in order to provide technical assistance with HPA projects.
- Number of hydroelectric projects receiving technical assistance for relicensing.
- Number of wind power projects properly sited.



Objective: Protect and promote commercial and recreational wildlife-related opportunities.

Strategy: Expand hunting opportunities.

Activities:

- Maximize general hunting season opportunities; identify and propose strategies to the Fish and Wildlife Commission for expanding hunting opportunities where wildlife populations are robust and problem situations warrant.
- In cooperation with tribes with off-reservation hunting rights, develop regional hunting management agreements that will maintain healthy game populations and ensure sustainable hunting opportunities for all Washington citizens.

Performance measures:

- Number of total participation days for hunting per year.
- Number of pheasant hunters.
- Number of acres made available for hunting, through WDFW agreements with private landowners.
- Dollars of hunting license revenue per quarter.

Strategy: Develop, update and implement fishery management plans.

Activities:

- Implement the Statewide Steelhead Management Plan and regional/watershed steelhead management plans (Puget Sound, Willapa Bay, Grays Harbor) including implementation strategies for each geographic area.
- Develop and implement a new Columbia River Management Plan that includes commitment by the parties to develop an abundance-based fall chinook harvest framework to achieve ESA, recovery, and conservation goals.
- Renew and implement state-tribal shellfish resource management plans as required.
- Improve catch accounting for the recreational harvest of Puget Sound Dungeness crab.
- Complete Lower and Mid-Columbia River Fish Management Plan.
- Complete State Environmental Policy Act (SEPA) review of lower, middle- and upper Columbia River fish management plans.

Performance measures:

- Number of total participation days (in millions) for sport fishing per year.
- Number of recreational fishing days for razor clams.
- Number of sport limits generated for clams and oysters.
- Number of trout planted in state waters annually.

Strategy: Increase opportunities for non-consumptive fish and wildlife activities.

Activities:

- Develop a plan designed to increase opportunities for non-consumptive fish and wildlife activities.
- Conduct ongoing outreach efforts to minority groups.

Performance measures:

- Number of wildlife-viewing sites.
- Number of wildlife festivals actively supported by WDFW.

Goal III: Funding

Ensure effective use of current and future financial resources in order to meet the needs of Washington state's fish and wildlife resources for the benefit of the public

Objective: Continue the Capital Project Improvement Process.

Strategy: Ensure that correct, effective and durable capital management processes are implemented.

Activities:

- Prioritize and align strategic initiatives with asset-management program principles and commitments.
- Develop a plan to expand use of processes developed in the Capital Program Action Plan.
- Address Capital Plan milestones associated with:
  - Hiring project managers
  - Procuring necessary project management software
  - Developing a new master work schedule
  - Redeploying staff resources

Performance measures:

- Condition of WDFW facilities as measured by the Office of Financial Management (OFM) facility condition index.
- Percentage of facilities in new asset management program.

Objective: Stabilize the Wildlife Account

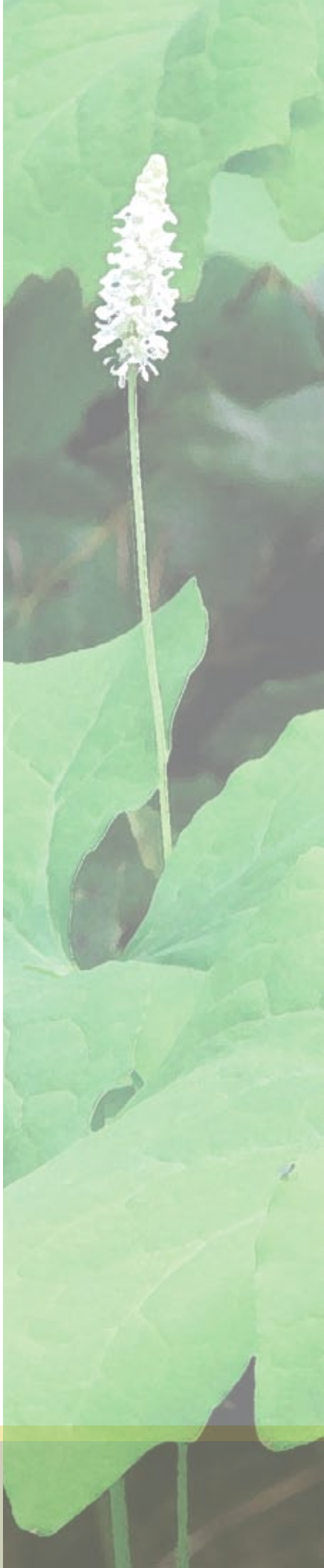
Strategy: Develop new funding strategies and ensure accurate forecasting and accounting of the fund balance

Activities:

- ❖ Ensure that the State Wildlife Account has a positive balance by the end of each biennium and into the future.

Performance Measures:

- ❖ Monthly State Wildlife Account cash balance.
- ❖ Percent of budget variance achieved for state funds, by fiscal year, for each department program and for the entire department.



Goal IV: Outreach

Implement processes that produce sound and professional decisions, cultivate public involvement, and build public confidence and department credibility

Objective: Improve public involvement and appreciation of fish and wildlife.

Strategy: Develop a strategic communication and outreach scoping document that identifies actions to increase the visibility of the department and the benefits of fish and wildlife resources.

Activities:

- Update and improve the department's website.
- Publicize fishing, hunting and wildlife-viewing opportunities.
- Increase communication and collaboration with advisory groups.
- Participate in a marketing initiative developed by the national Recreational Boating and Fishing Foundation focused on "lapsed" recreational fishers. This effort will include coordination with 20 other states that have agreed to participate in the marketing program.
- In consultation with other western states and natural resource agencies, conduct an analysis of the costs and staffing requirements for an agency quarterly publication.
- Gather input on other state fish and wildlife agencies' strategic communications and outreach planning.

Performance measures:

- Number (in thousands) of youth participating in youth sport fishing events.
- Number of WDFW website visits.
- Number of hours spent meeting with stakeholder groups.

Strategy: Maintain/improve existing relationships that engage volunteer organizations and fishing, hunting and wildlife viewing advocate communities.

Activities:

- Enhance participation in community events.
- Develop outreach to promote volunteer opportunities.
- Utilize volunteer partnerships on department lands enhancement efforts.
- Find additional funds to purchase or develop new volunteer database.
- Highlight volunteer partnerships through annual newsletter.

Performance measures:

- Number of hours of WDFW volunteer activities.
- Provide breakout of hours by WDFW-supported partnerships such as RFEGs, Aquatic Lands Enhancement Account (ALEA), Watchable Wildlife, etc.
- Incorporate volunteer organizations into the department strategic initiatives by region.

Strategy: Promote hunter safety awareness, knowledge and skills.

Activities:

- Educate first-time hunters by training a statewide network of volunteer instructors and provide hunting classes statewide.
- Train first-time trappers.
- Provide advanced hunter education, bowhunter education and a home study or online alternative to the basic hunter education course.

Performance measures:

- Number of statewide Hunter Education classes given.
- Number of active instructors in Hunter Education.
- Number of persons successfully completing Hunter Education certification.
- Number of hunting incidents per year.

Strategy: Enhance public involvement in the North of Falcon salmon season-setting process.

Activities:

- The department will work with the treaty tribes and its stakeholders to improve the North of Falcon process by enhancing public involvement to make it as open and transparent as possible while recognizing and respecting the government-to-government relationship between the treaty tribes and the state of Washington.
- The department will use the best scientific information available in formulating fishing seasons and management measures that prioritize the support of conservation of wild stocks and maintain and enhance fishing opportunities.
- Keep North of Falcon web site link up to date with meeting dates, process timeline and map to represent most recent agreed to fishery plan.

Performance measures:

- Number of visits to the North of Falcon webpage.
- Number of stakeholders that participate in meetings.
- Number of wild stocks meeting fishery conservation objectives.

Strategy: Recruit new wildlife-related participants through active outreach and education.

Activities:

- Provide outreach and education services.
- Conduct 500 or more individual projects such as youth fishing events, Salmon in the Classroom annually.
- Participate in state, regional and county fairs, sportsmen's shows and boat shows.
- Continue marine outreach program for beach walks, beach clean-ups and marine-oriented classroom presentations.

Performance measures:

- Number of schools participating in WDFW citizen-science projects.

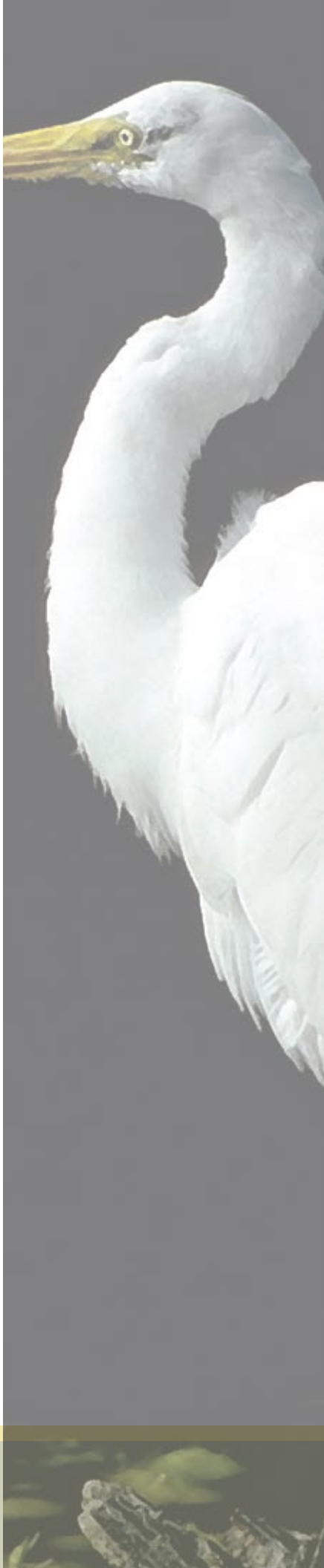
Strategy: Pro-actively address human/wildlife interactions

Activities:

- Develop new statutory language for damage, nuisance and dangerous wildlife laws.
- Develop an agriculture damage assessment process based on an outside scientific peer review. Assessment work should include development of common definitions and include a recommended compensation value table. Expand the Wildlife Conflict Specialist Program.

Performance measures:

- Number of verified complaints for bear and cougar per 100,000 citizens.
- Percentage of targeted animals taken under public safety cougar removal permits.
- Ratio of damage claims to total deer and elk damage complaints.
- Percentage of elk harvested under Landowner Access Permits.
- Number of special trapping permits issued.
- Percentage of deer and elk damage claims solved by cooperative solutions
- Dollars paid for deer and elk damage claims per year.



Goal V: Science

Promote development and responsible use of sound, objective science to inform decision-making

Objective: Use the best-available science.

Strategy: Develop scientific tools and knowledge to support effective management of fish and wildlife.

Activities:

- Develop a scientific peer-review plan for critical science components needed to manage and conserve fish and wildlife populations. The plans shall include a process description, timelines, priorities, and costs.
- Develop a research agenda to address data gaps and develop seven additional white papers on the potential impacts from hydraulic projects as part of the Habitat Conservation Plan (HCP) process.

Performance measures:

- Number of species and/or populations with improved scientific understanding of limiting factors and ecological requirements.
- Number of scientific research projects in progress.
- Number of species and/or populations with genetic baseline information.
- Number of published papers in peer-reviewed scientific journals.

Goal VI: Employee Competence

Create an environment that nurtures professionalism, accountability, enthusiasm, and dedication in order to attract, develop, and retain a workforce that can successfully carry out the mandate of the department

Objective: Hire and promote the best candidates.

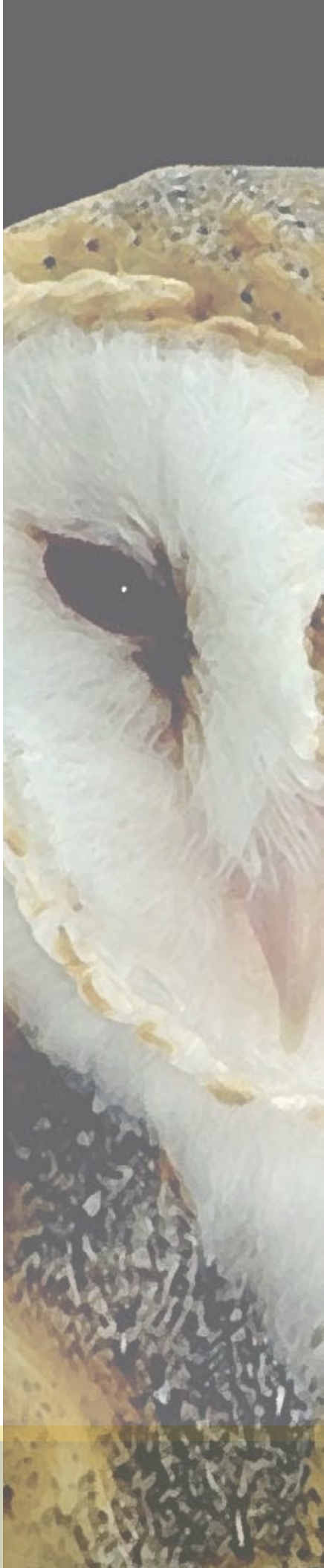
Strategy: Align individual qualifications and expertise with position functions, roles and responsibilities.

Activities:

- Review hiring practices, ensuring a broad solicitation of qualified applicants.
- Promote a diverse and professional department workforce.
- Align individual qualifications and expertise with position functions, roles and responsibilities.
- Conduct a law enforcement allocation and staffing study that determines law enforcement workload by function and geographical area and the number of officers needed to address the workload, and identifies and considers alternative staffing options.

Performance measures:

- Percentage of employees with current position/competency descriptions.
- Average number of days to hire for job vacancies.
- Percentage of employees with current performance evaluations.



Objective: Provide a safe and healthful work environment.

Strategy: Incorporate safety values into agency activities through proactive safety leadership.

Activities:

- Ensure required safety training is completed.
- Enhance WDFW Safety Committee effectiveness.

Performance Measures:

- Percentage of WDFW staff whose evaluations address safety training needs.
- Percentage of WDFW Safety Committees that perform annual inspections.
- Incident rate (number of recordable injuries per 100 FTEs).

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Washington Department of Fish and Wildlife

Mailing address: 600 Capitol Way North

Street address: 1111 Washington St. SE

Olympia 98501-1091

Mail Stop: 43200

Phone: (360) 902-2200

800 833-6388 (TTY)

http://wdfw.wa.gov/

Appendix B

GIS Significant Geo-Datasets

The information on the pages that follow will provide the reader with detailed information on WDFW's significant geo-datasets.

For additional information on GIS resources in use by WDFW, see Section 3.D.

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	A	B	C	D	E	F
1	**Washington Department of Fish and Wildlife**					
2	**SIGNIFICANT GEO-DATASETS**					
3	Updated 6/30/2010					
4	**Definitions:**					
5	Geo-datasets are digital collections of spatial information primarily managed or edited by Geographic Information System (GIS) software. Although some computer aided design (CAD) systems have GIS like functions, for purposes of this definition, CAD systems are not considered GIS.					
6						
7	Significant geo-datasets' must meet one or more of the following criteria:					
8	1. Geo-dataset is mission critical for agency or major program or is required for regulatory purposes and/or,					
9	2. Estimated or expected life cycle costs or investment exceed $500,000 and/or,					
10	3. Geo-data is regularly distributed outside agency and/or,					
11	4. Geo-data holding has been designated significant by Information Services Board.					
12						
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**DataSteward (Individual Responsible For Metadata)**	**Comments**	**Descriptions**
14	Priority Habitats and Species (PHS) Polygons	phsregion, phspoly	Habitat	Terry Johnson		This dataset consists of polygons that describe occurrences of habitats and species considered priority by WDFW.
15	Priority Habitats and Species (PHS), Habitat Points	phspts	Habitat	Terry Johnson		This dataset consists of priority habitat sites that cannot be represented as polygons in the PHS polygon database.
16	Bald Eagle Regulatory Buffers	baldeagle_bf	Habitat	Terry Johnson		Regulatory buffers generated around known observations of Bald Eagles including nests and communal roosts
17	National Wetlands Inventory	niwpoly, nwiarcs	Habitat	Terry Johnson		This dataset identifies wetlands and deep water habitats as either polygons or linear features. The wetlands are classified within a hierarchical organization according to plants, soils,
18	Fish Passage Barrier Inventory	dams, misc barriers, road crossings	Habitat	Brian Benson		This dataset contains information on the location, physical characteristics and barrier status of man made fish ways, culverts and dams.

	A	B	C	D	E	F
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**DataSteward (Individual Responsible For Metadata)**	**Comments**	**Descriptions**
19	Forage Fish	Doc_Sand_Lance_Spawning Doc_Smelt_Spawning Forage_Fish_Surveys Forage_Fish_Survey_Pts	Habitat	Brian Benson		Survey and occurrence data related to distribution of sand lance and smelt.
20	Salmon and Steelhead Habitat Inventory and Assessment Program(SSHIAP)	segments	Habitat	Ken Pierce		This dataset contains information on a 1:24,000 scale stream network broken down into segments of like gradient.
21						
22	StreamNet	banks, resfish, str100, lakes, facility	Fish	Andy Weiss Leslie Sikora	The following layers have been retired after being rolledup into fishdist: anadfish, anadpres, anadrear, anadspwn, barriers,bullchar, phsfish	This dataset includes 1:100,000 scale streams with major lakes and double banked streams; fish presence with known spawning and rearing; locations of natural and artificial barriers to anadromous fish; and production facilities including hatcheries and off-site rearing and staging areas.
23	Washington Lakes and Rivers Information System (WLRIS)	fishdist, sasi, str24, wby24	Fish	Andy Weiss		This dataset includes 1:24,000 scale streams and water bodies and fish presence with know spawning, rearing and stock status. It also includes presumed and potential presence based on habitat
24	Marine Resources	abalone, aba_town, clam clamhard, clamsubt, crabline, oyster, razrclam, rocksole, shrmppan, urchin, shellfish_summary	Fish	Dale Gombert	The following layer are now obsolete: SandLanz and Smelt	This dataset is a collection of information concerning marine fish and shellfish resources in the coastal and inland marine waters of Washington.
25	Marine Resources cont'd	herrspwn, herrhold	Fish	Adam Lindquist		
26	Marine Resources cont'd	geoduck	Fish	Ocean Eveningsong		

	A	B	C	D	E	F
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**DataSteward (Individual Responsible For Metadata)**	**Comments**	**Descriptions**
27	Klickitat County Oak	klickoak	Wildlife	Shelly Snyder		Oak canopy classification for Klickitat County.
28	Shrubsteppe	lc_east	Wildlife	Shelly Snyder		Shrubsteppe habitat for eastern Washington.
29	Old Growth	og1988	Wildlife	Shelly Snyder		1986 mapping of forest stand type categories in western Washington
30	Game Management Units	Game_Management_Units_2010	Wildlife	John Talmadge	Includes historical datasets back to 2004	Boundaries used for big game hunt seasons
31	Deer Units	DA10	Wildlife	John Talmadge	Includes historical datasets back to 2004	Boundaries used for deer hunts
32	Elk Units	EA10	Wildlife	John Talmadge	Includes historical datasets back to 2004	Boundaries used for elk hunts
33	Goat Units	MGU10	Wildlife	John Talmadge	Includes historical datasets back to 2004	Boundaries used for goat hunts
34	Sheep Units	BSU10	Wildlife	John Talmadge	Includes historical datasets back to 2004	Boundaries used for bighorn sheep hunts.
35	WDFW Ownership	WDFW_Lands	Wildlife	Marc McCalmon		This dataset contains general boundaries of lands that WDFW owns or manages.
36	Water Access Sites	WaterAccessSites	Wildlife	Jeff Foisy		Water access sites managed by WDFW
37	Sage Grouse Distribution	sage	Wildlife	John Talmadge		Current and historic sage grouse distribution for western states.
38	Sharp-tailed Grouse Distribution	sharptail	Wildlife	John Talmadge		Current and historic sharp-tailed grouse distribution for western states.
39	Road Management and Abandonment Planning	RMAP	Wildlife	Shelly Snyder		Inventory of road conditions on WDFW owned lands in compliance to the forest practices rules.
40	Marine Bathymetry	bsurface1, mfcan, mfcol_a, mfcol_b, mfcol_c, willapasand, shorez10, netcovz10, mfcoast, mfpuget	Wildlife	Shelly Snyder	This is a raster layer that is accompanied by 10 vector layers	This dataset contains information on measurements of the depth of large bodies of water in Puget Sound, Strait of Juan De Fuca and Washington marine coast.
41	Tribal Ceded Areas	Tribal_Ceded_Areas	Wildlife	John Talmadge		WDFW interpretation of tribal ceded area boundaries.

	A	B	C	D	E	F
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**DataSteward (Individual Responsible For Metadata)**	**Comments**	**Descriptions**
42	GAP	land cover, mammals, reptiles/amphibians, birds	Wildlife	Shelly Snyder		This dataset contains land cover information and modeled species distributions.
43	Marbled Murrelets	ws_mmadj8sects, ws_mmdetsec, ws_mmoccbuf	Wildlife	Jane Jenkerson		This dataset contains information on marbled murrelet occupancy detection locations and areas.
44	Spotted Owls	ws_owlsitecenters, ws_owlstatus_buf	Wildlife	Lori Salzer	Retiring: bfhsterr, bfnoterr, bfterr	This dataset contains information on spotted owl site center locations and various associated polygon buffers.
45	Seal/Sea Lion Haulout sites	haulouts	Wildlife	Raj Deol		Contains locations of seal and sea lion haulout sites in Washington waters.
46	Seabird Colonies	sbirdcat	Wildlife	Raj Deol		Contains locations surveyed for breeding seabirds.
47	Wildlife Survey Data Management(WSDM)	ws_occurpoint, ws_occurpolygon	Wildlife	Raj Deol		This dataset contains information on documented site observations of wildlife including state and federal listed species of concern.

Credits

The following WDFW staff contributed information to the 2010 Information Technology Portfolio:

Office of the Director

Phil Anderson (Director)
Joe Stohr (Deputy Director – Operations)

Public Affairs:
John Burrows

Financial and IT Services Program

Jeff Olsen (Assistant Director), Lori Anthonsen (Budget Office), Jeanette Laws (Contracts and Purchasing)

IT Services Division:
Michael DeAngelo (CIO), Brett McCarron (editor), Shawn Brown, Shandi Dollman, Jim Eby, Brian Fairley, Doug Goodart, Lee Hoines, Mike Keeling, Justin McCarron, Jason McKee, Rob Pearce, Claudia Conner, Angie Ragan, Patty Rohrer-Bartlett, Bernie Triance, Tim Young

Enforcement Program

Dan Annis (funded by IT Services), Garret Ward

Fish Program

Brodie Cox, Greg Konkel, Eric Kraig, Gil Lensegrav, Dayv Lowry, Catie Mains, Sheila Smith, Andrew Weiss

Habitat Program

Brian Benson, John Jacobson, Terry Johnson, Ken Pierce, Kevin Samson

Wildlife Program

Rajbir Deol, Shelly Snyder

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State of Washington
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Office of the Director - Operations
Information Technology Services
600 N Capitol Way
Olympia, WA 98501-1091
http://wdfw.wa.gov

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Washington
Department Of
Fish & Wildlife
wdfw.wa.gov