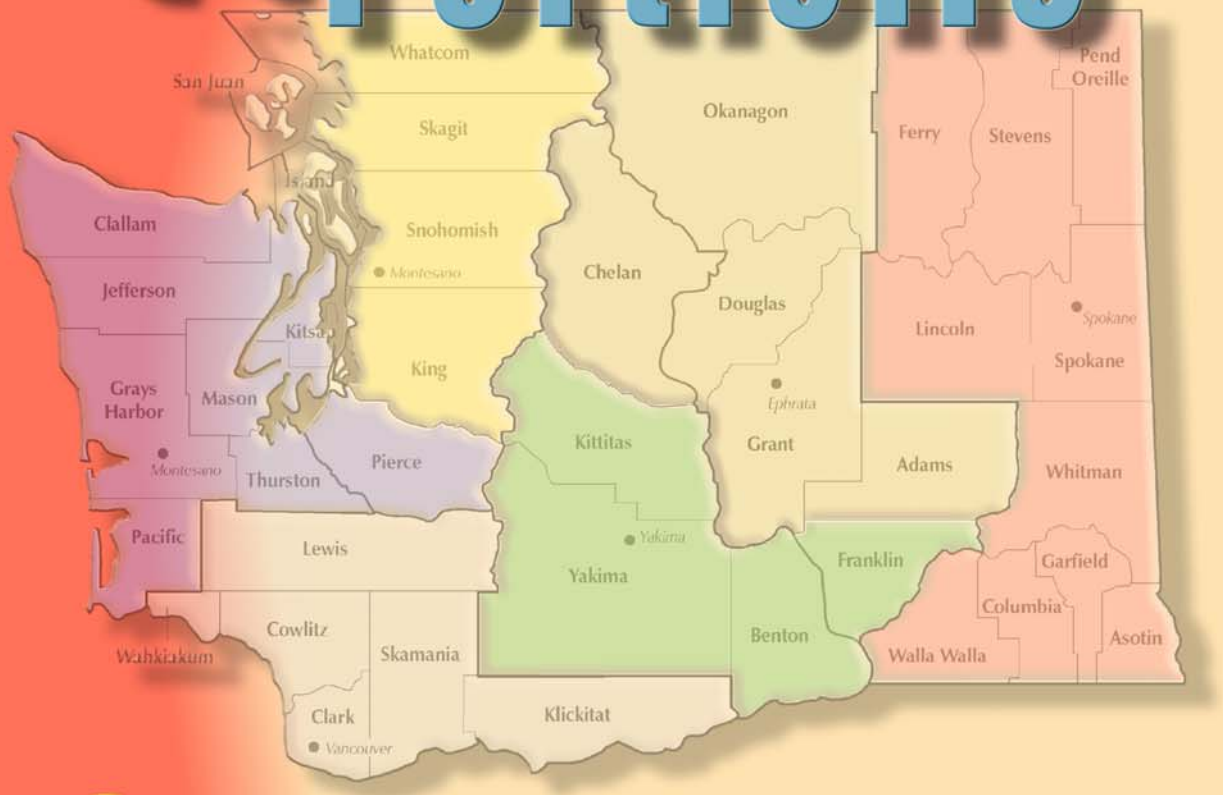
2007 Information Technology Portfolio



State of Washington
Department of Fish and Wildlife

August 2007

Approvals

This document 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, 2007.

WDFW Director Jeff Koenings, PhD, certified in a letter to the Information Services Board (ISB) dated August 22, 2007, that the annual IT portfolio update has been completed. A copy of the letter is included in Section 6 of this document, in accordance with portfolio management standards published by the ISB.

/s/ Jeff Koenings, PhD.	3/18/08
Director WA Department of Fish & Wildlife	Date

/s/ Joe Stohr	3/18/08
Deputy Director-Operations WA Department of Fish & Wildlife	Date

/s/ Jim Eby	3/17/08
Manager Information Technology Services	Date

Introduction

Jeff Koenings, PhD.
Director, Washington
Department of Fish and Wildlife

I am pleased to present the *2007 Information Technology Portfolio,* which provides an updated summary of the information technology (IT) investments of the Washington Department of Fish and Wildlife (WDFW).

IT helps WDFW fulfill its mission of protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable and wildlife-related recreational and commercial opportunities.

At WDFW, we rely on IT for e-government purposes ranging from online recreational license applications to access to cougar sighting and fish catch information. We use IT internally, too, to manage scientific information, track employee activity among a variety of funding sources, and effectively communicate with our field staff from over a hundred different work locations throughout the state.

In the pages that follow you will find information on current and future technology initiatives, such as our agency-wide migration to Microsoft Exchange messaging, as well as our harnessing of geographic information systems (GIS) to present information to the public via the Internet. You'll also find capsule summaries of ongoing IT projects, including our desktop microcomputer lease program, hydraulic project management system (HPMS), contracts and project system (CAPS), and more.

On behalf of the employees of the Washington Department of Fish and Wildlife, I encourage you to enjoy the contents of this update to our IT Portfolio and extend a personal invitation for you to visit our Internet Web site at http://wdfw.wa.gov.

Jeff P. Koenings, PhD., Director
Washington Department of Fish and Wildlife
August 2007

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1. Overview

A. Purpose

Figure 1-1. Information technology helps WDFW to safely and effectively communicate key concepts of hunter safety to the public. *(Photo credit: Laser Shot, Inc.)*

This document, the *2007 Information Technology Portfolio,* identifies and updates the investments in information technology (IT) held by the Washington Department of Fish and Wildlife (WDFW). 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 Director, the Fish and Wildlife Commission, DIS management and staff, the Information Services Board, 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 version will be published on our Internet website at: http://wdfw.wa.gov/depinfo/it/index.htm .

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.

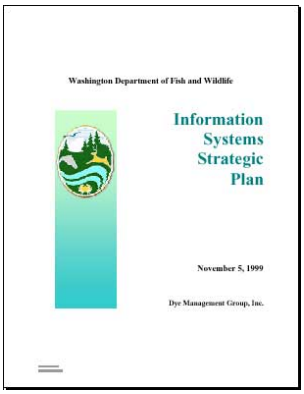

Figure 1-2. Information Systems Strategic Plan *(Dye Management)*

WDFW continually engages in assessment of the agency's strategic IT direction. In 1999, Dye Management Group, Inc. worked with WDFW to establish the agency's technology needs, and assess the current architectures and information technology support in place at WDFW. These evaluations produced an Information Systems Strategic Plan (ISSP) for WDFW. The recommendations made by the Strategic Plan continue to provide a framework for IT management today.

Figure 1-3. IT Technical Architecture Study *(Sierra Systems)*

Sierra Systems completed an update of the WDFW IT architecture strategy in the fall of 2004 that provides IT architecture strategic direction through 2009. The Sierra report provides an informed opinion on strategies that encompass architecture frameworks for a corporate database, operating systems for network systems, email, web hosting, application development, and more. Commercial offerings in use by other state agencies, as well as open source solutions, were evaluated along with technologies currently used at WDFW. Last biennium WDFW again assessed its strategic IT architecture direction in discussions with DIS and OFM. The agency and its authorizing partners agreed that WDFW should pursue an IT architecture direction that is more consistent with the majority of state agencies. This new direction will overlay and modify the previous foundation and recommendations.

B. Convergence of Business Mission and IT Vision

The WDFW updated its Strategic Goals, Objectives and Performance Indicators in September 2006. The document is incorporated herein as Appendix A.

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 and their supporting habitats.
- Ensure sustainable fish and wildlife opportunities for social and economic benefit.
- Ensure effective use of financial resources in order to meet the needs of the states 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 agency 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 agency.

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

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. These success factors were recognized by the ISSP as building blocks for the future.

- 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.

- 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

  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:

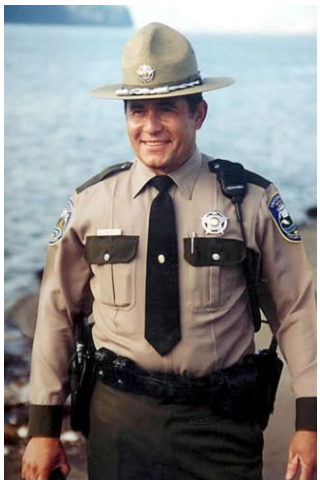

Figure 1-4. WDFW Enforcement officers rely on IT for improved customer service and officer safety.

- 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. New state government systems continue to emerge based on the assumption that all state employees have network connectivity.

  Better network access facilitates improved communications and provides opportunities for more efficient, unified business support processes. Investigation into new remote network access technology, including an evaluation of wireless access alternatives, is needed.

- Participation in state Enterprise Architecture Initiatives

  WDFW has committed to pursuing changes in its IT architecture to more closely emulate other state agencies. This will 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. As bandwidth intensive needs such as GIS data access and video conferencing become more critical, a migration away from traditional WAN technology toward a statewide integrated LAN based on fiber and high speed private Ethernet topology is expected to continue. Continued replacement of obsolete servers and network gear is also required to maintain normal agency services.

- 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. Increased funding is necessary to fully implement practices that maintain desktop software and automate desktop management.

- 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. Improved web site tools will enable 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 methods will provide the necessary linkage to ensure that information is available across all programs.

- Implement the IT standards, and methods recommended by the ISSP, the Sierra Study, and other recent strategic evaluations

  The agency can make IT more effective and efficient by continuing to follow and implement the recommendations from the WDFW *Information Systems Strategic Plan* (ISSP) and the other recent updates.

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 Business Services 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 Business Services 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.

An historical example is the former WDFW Prime minicomputer, which could not be made POSIX compliant to meet new state technical standards. WDFW replaced the Prime with UNIX servers and migrated our legacy applications to the new platform, in order to comply with the state standard.

A more recent example involves the de facto standard of the Microsoft Office desktop productivity suite. In order to be more compatible with other state government entities and the general public, WDFW decided to abandon its internal standard of Corel Office (WordPerfect). The migration to Microsoft Office was completed in June 2003.

WDFW retained Sierra Systems to perform an independent review of its IT software and hardware architecture in fall 2004. The results from the Sierra study will be used as a planning tool to guide the direction of future information technology improvements in the coming biennia. WDFW has initiated

communications with the new Enterprise Architect at DIS to ensure that the future architecture direction is consistent with state standards and principles.

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.

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D. Overview of Infrastructure

The information that follows is a summary of WDFW's technology infrastructure for the 12-month fiscal period ending June 30, 2007. For detailed information, please refer to section 3.

WDFW IT Infrastructure At A Glance
As of 6/30/07

1,633.4	Permanent agency FTEs
51.0	Central IT FTEs
31.5	Program IT FTEs
1576	Microcomputers
56	Network servers

Figure 1-5. WDFW IT infrastructure summary.

1. Personal Computer Hardware

WDFW has 1576 systems in its microcomputer fleet. Most agency microcomputers are equipped with Intel processors, ranging from Pentium 4 2.66 GHz to Intel E6400 CoreDuo 2.13 GHz systems.

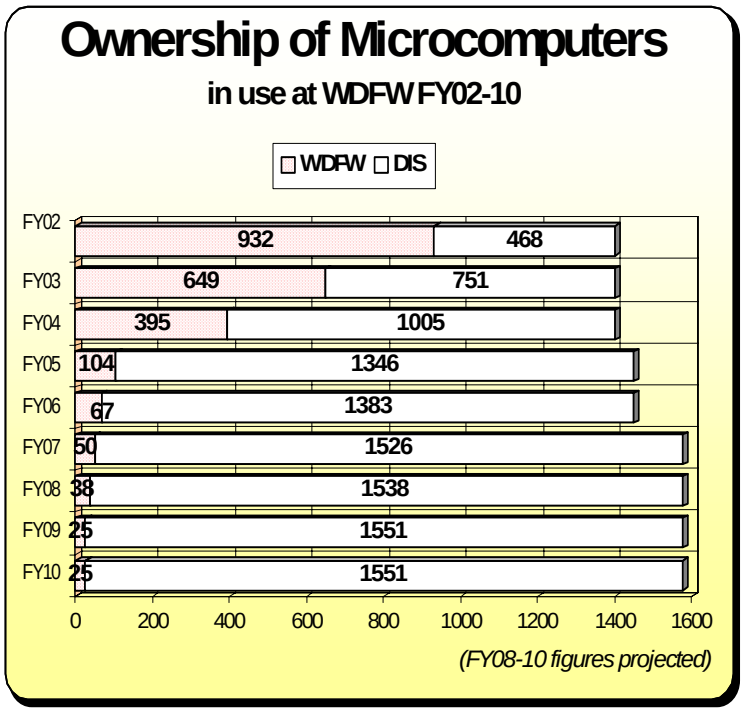

Figure 1-6. By the end of FY10, WDFW anticipates leasing nearly its entire microcomputer fleet from DIS.

For FY07, WDFW continued its microcomputer equipment lease with the Department of Information Services (DIS). The lease agreement was entered into in April 2001. The lease program allows WDFW to systematically replace existing, agency-owned systems, and, once all systems are enrolled, refresh its fleet over an approximate 42-month product life cycle. Similar computer lease programs are in place at the Washington Departments of Transportation, Employment Security, and Social and Health Services.

As of June 30, 2007, WDFW has 1526 leased systems in its microcomputer fleet. This is an increase of 143 systems enrolled in the computer refresh program since

the 2006 Portfolio. For FY08, WDFW expects to bring an additional 38 systems into the program, changing its microcomputer fleet ownership slightly (1538 leased, 37 WDFW-owned).

Prior to the DIS lease agreement, WDFW acquired PCs via conventional purchase methods without regard to a systematic, planned replacement strategy. This piecemeal purchase practice led to great disparity among its microcomputer investment, in terms of brands, processor platforms, operating systems, and ages of systems to support.

FY07 saw the continuation of a trend toward replacing obsolete desktop systems with new, leased notebook microcomputers. These *desktop replacement* systems make good business sense for those employees who spend much of their work time out in the field or at two or more agency facilities. As of June 30, 2007, notebooks accounted for 27% of the leased microcomputer total (408 systems), compared with 23% for FY06 (322 systems).

2. Personal Computer Software

a. Operating System

WDFW has standardized on the *Microsoft Windows 2000 Professional and Windows XP Professional* operating systems for its microcomputer fleet. Windows 2000 systems are replaced with new leased systems operating Windows XP via the agency's technology refresh initiative.

WDFW notebook systems are predominantly equipped with Windows XP Professional, in order to take advantage of the personal firewall and wi-fi network capabilities built into the operating system.

For the coming biennium, WDFW is planning a migration to Microsoft Windows Vista as its agency microcomputer operating system standard. The transition to Vista can be implemented more expediently if combined with the migration to managed directory services and Microsoft Exchange.

b. Office Productivity

Microsoft Office 2000/2003 Professional is the current agency standard office productivity suite. This software allows WDFW to be more compatible with other government agencies. All new and leased microcomputer systems are licensed for use with Microsoft Office.

Recent statewide systems assume that users have newer versions of Microsoft Office. A change to the newer Office productivity standard will include a major financial investment in software licenses. WDFW has obtained funding for the 2007-09 biennium that will enable the agency to

enter into a Microsoft Enterprise Licensing agreement, and upgrade all desktop systems to Microsoft Office 2007.

c. Other

Other PC software standards include Frisk Software's *F-Prot Antivirus for Windows*, the Microsoft *Internet Explorer* web browser and the *WinZip* file archival/extraction utility.

3. Networks

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

a. Agency Network

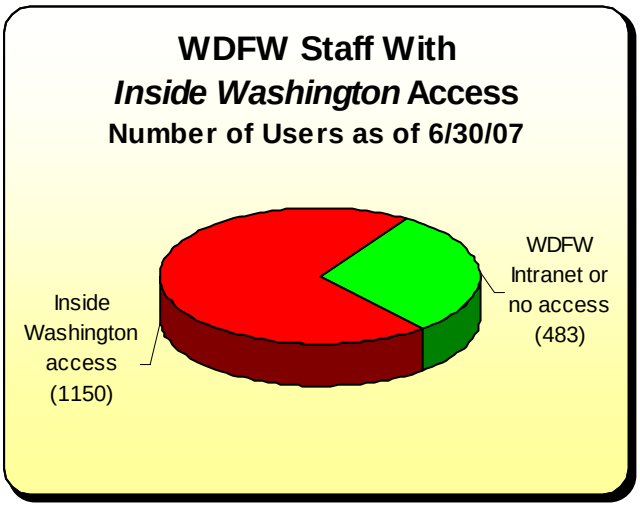

Figure 1-7. Despite having over 100 agency work locations distributed throughout the state, most WDFW employees have access to *Inside Washington* and/or the agency Intranet.

The WDFW network connects personnel in 17 facilities (six buildings in the greater Olympia area, nine buildings in the Regional Offices, and two District Offices). In FY03, WDFW began a project to replace traditional frame relay WAN links between these sites with new technology. Working with NoaNet, private vendors, and DIS, WDFW has implemented a high speed integrated Ethernet LAN connecting the Regional Offices into the Olympia LAN.

High-speed network links are now in place at all six WDFW Regional Offices. Connection speeds to these sites have increased from a WAN speed of 768 kbps to LAN speeds of 10 to 100 mbps. A similar transition will take several years to complete for all major field offices.

b. VPN

The WDFW Virtual Private Network (VPN) allows remote staff to connect to the agency WAN via the Internet on an ad-hoc basis. Sufficient licenses exist to allow all agency staff to utilize the VPN. Approximately 400 agency users are field staff who use the VPN as their primary method to access the WDFW WAN.

c. Servers

WDFW currently utilizes Intel-based servers with Novell NetWare to provide authentication, storage, directory, email, and Intranet services. During the 2007-09 biennium, WDFW will be replacing Novell Directory Services and Novell GroupWise email with Microsoft products. WDFW will use the DIS Managed Exchange email service. WDFW expects to replace Novell file and print services with Microsoft systems. These changes will reduce the number of Novell servers substantially, with only a few remaining at the end of the project. A net reduction of 6 to 10 servers in the size of the WDFW server fleet is expected over the next two years.

Sun servers running the Sun Solaris operating system are used for legacy database and Web applications.

A migration to SQL server has begun, which will decrease the WDFW Sun server investment in favor of Intel-based systems running Microsoft Windows Server. WDFW is increasing its Windows Server investment to host applications, such as the agency IT inventory system and GIS web services.

In FY08, WDFW also will continue its migration to Novell SuSE Linux, in accordance with the server platform recommendations of the Sierra study. Linux servers are primarily used as web servers and as the web services tier for web-enabled applications.

Funding was approved for the 2007-09 biennial period that will enable WDFW to migrate to Microsoft Active Directory and Exchange email services. This project will align WDFW network and email platform with the de facto standards of other large Washington state agencies. More information is available in Section 4 (*see IT Enabling Project, WDFW Computer Systems Architecture).*

4. Staffing

In FY07, WDFW devoted 82.5 full-time equivalents (FTEs) to the administration, development and support of its IT investment. Of this number, 31.5 FTEs are organizationally located in programs and divisions across the agency.

The remaining 51 FTEs are located in the central Information Technology Services Division (ITSD) within the Business Services program.

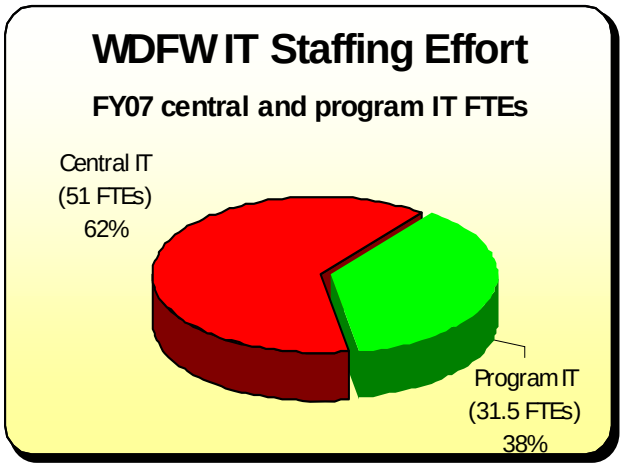

Figure 1-8. Thirty-eight percent (31.5 FTEs) of WDFW's IT staff are located outside the central IT Services Division.

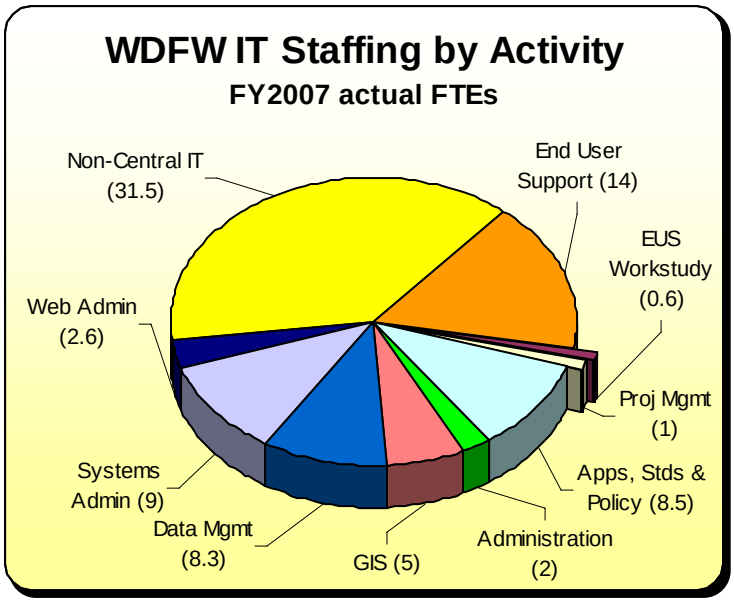

Figure 1-9. WDFW information technology staffing covers a wide array of functions and activities.

The ITSD is composed of nine functional work units: Administration; Geographic Information Systems (GIS); Data Management; Project Management; Systems Administration; Web Site Administration; End User Support; EUS Workstudy; and Applications, Standards and Policy.

- *Administration* (2 FTEs) - This unit provides overall administration and support of agency IT. The positions include the agency IT Services Division Manager and the Division Secretary.

- *Geographic Information Systems* (5 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.

- *Data Management* (8.3 FTEs) – This unit includes the functions of the agency data custodian/unit manager (1 FTE), resource statistics (1 FTE), HPA data custodian (1 FTE), license data manager (0.5 FTE), fish ticket scanning support (0.9 FTE), financial services IT support (1 FTE), and data entry section (2.9 FTEs).

- *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* (9 FTEs) – This unit provides Wide Area Network (WAN) and telco administration and support for the agency. Functions performed include unit management (1 FTE), UNIX server and network backup administration (2 FTE), email administration (1 FTE), Novell network/WAN (2 FTEs), VPN and Windows server administration (1 FTE), and telco/voicemail/cabling support (2 FTEs).

- *Web Site Administration* (2.6 FTEs) – This unit provides web site administration, editing, and graphics support for the agency Internet and Intranet sites.

- *End User Support* (14.6 FTEs) – This unit maintains and supports WDFW microcomputers and office productivity software. Functions performed include unit administration (1 FTE), specialized support and audit (1 FTE), Eastern WA support (2 FTEs), off-campus support (1 FTE), NRB support manager (1 FTE), and program support/Help Desk (8 FTEs). In FY06, community college work-study students provided an additional 0.6 FTE of support.

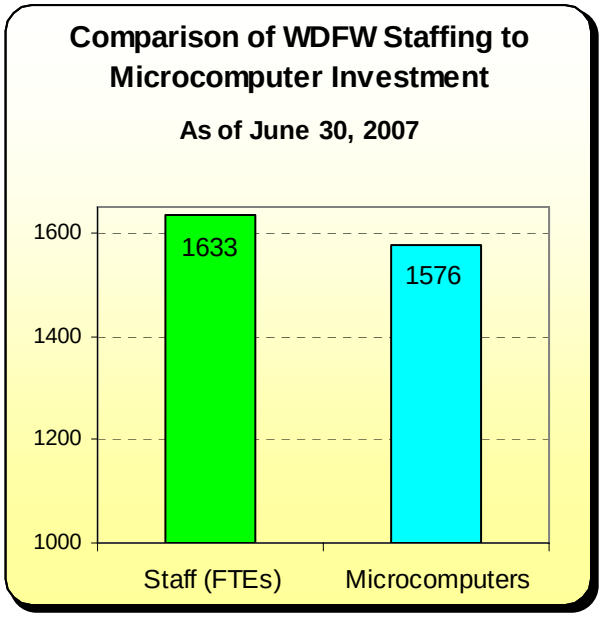

Figure 1-10. WDFW End User Support (EUS) technicians provide support for nearly 1600 microcomputers, as well as the associated agency standard software and peripherals used by over 1600 employees.

- *Applications, Standards and Policy* (8.5 FTEs) – Functions performed by this unit include unit management (1 FTE); development, maintenance, and oversight of new and existing applications (4.5 FTEs), database administration (1 FTE), data administration (1 FTE), and IT security and data policy development (1 FTE).

The mission of the centralized Information Technology Services Division (ITSD) within the Business Services Program is *Leading and Powering Information Technology for Fish and Wildlife with Quality Service and Solutions.*

An organizational chart and value statements for the centralized Information Technology Services Division of the agency Business Services Program appear on the pages that follow.

Figure 1-11. WDFW IT Services Division logo.

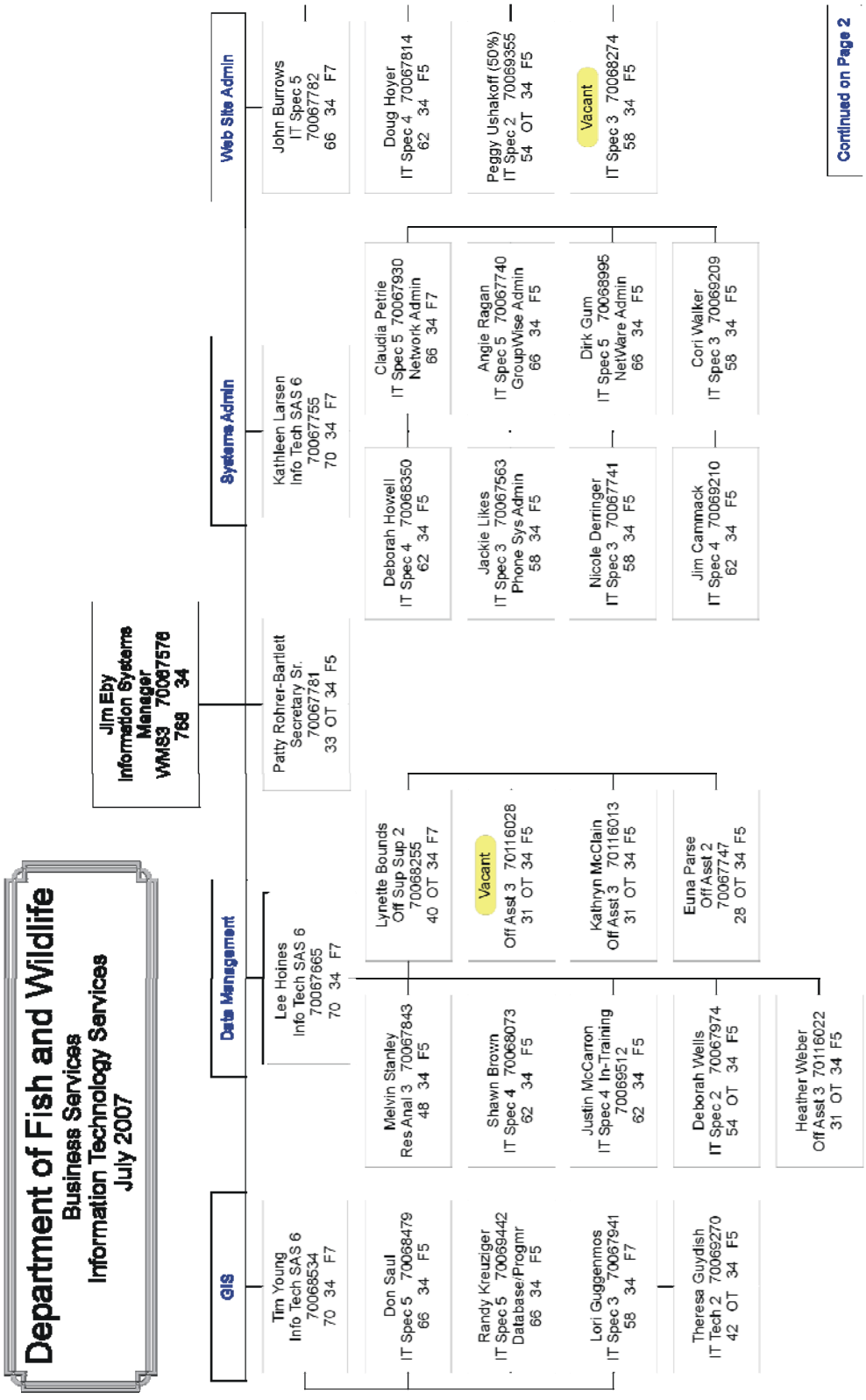

Figure 1-12a. Organizational structure of the WDFW IT Services Division *(part 1 of 2).*

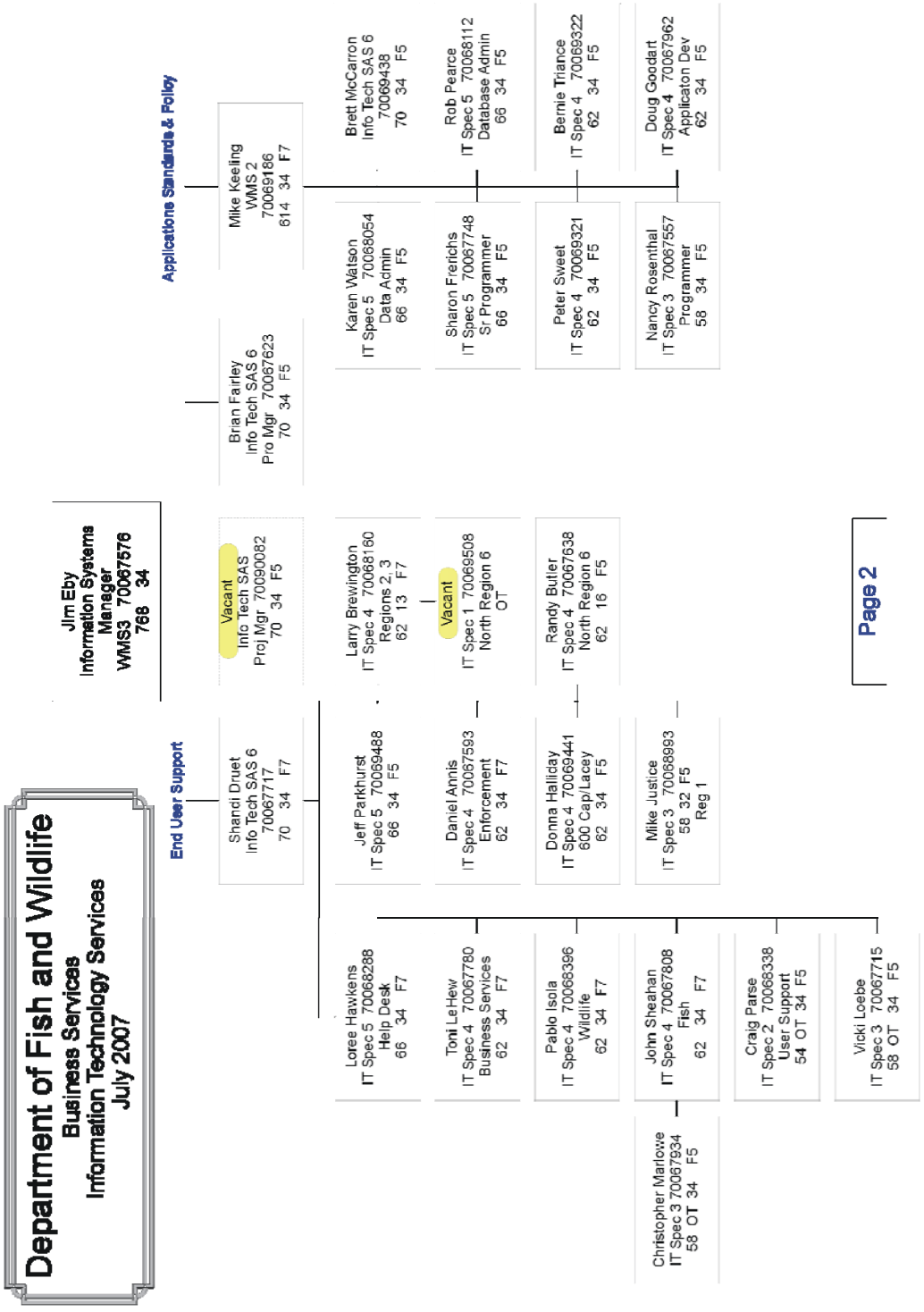

Figure 1-12b. Organizational structure of the WDFW IT Services Division *(part 2 of 2).*

WDFW Information Technology Services (ITS)

Mission: Leading and Powering Information Technology for Fish and Wildlife with Quality Service and Solutions

Shared Values and Operating Principles

ITS Customer Service

We will provide responsive, knowledgeable, and accurate service.

We will be available and attentive to our customers.

We will respect the customer and provide courteous service.

We will learn and understand the customer's needs.

We will seek to educate our customers and encourage feedback.

We will communicate effectively and establish rapport with our customers.

ITS Technology Solutions

Our technical solutions will link and empower WDFW staff.

We will provide professional and knowledgeable advice and expertise.

Our service and solutions will foster partnerships and accomplish agency goals.

We will provide accessible, reliable and supportable systems.

We will provide responsive and effective systems management.

We will provide a safe and effective computing environment for conducting agency business.

Enabling ITS Staff

We will trust staff to make decisions within their area of expertise and level of responsibility.

We will create a pleasant and enjoyable work environment.

We will seek opportunities for job cross-training and assignment rotation.

We will learn the business of other agency programs.

We will strive for continuous improvement in staff skills and expertise.

E. Analysis

1. Agency IT Staffing Effort

The state fiscal year 2007 (FY07) staffing authority for WDFW was 1633.4 full-time equivalents (FTEs).

The level of actual agency IT staffing, 82.5 FTEs, accounted for 5.1% of the total WDFW FY07 staffing authority – a reduction of nearly 1% from FY06.

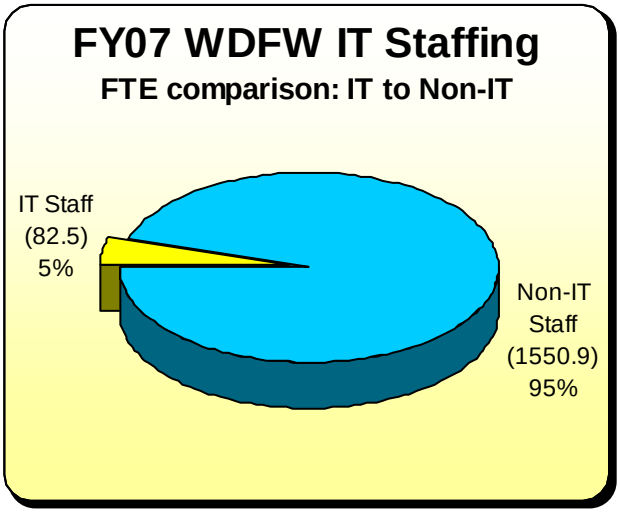

Figure 1-13. Employees performing IT functions accounted 5% of WDFW's total staffing effort in FY07, a reduction of nearly 1%.

The projected FY08 agency IT staffing level is 85.1 FTEs, an increase of 0.9 FTEs for the central IT Services Division (ITSD) and a projected increase of 1.8 FTEs in resource program IT activity. The projected increase in ITSD staffing is a result of enhancing the effort in webmaster functions for the agency Internet and Intranet sites. Resource program staff increases are primarily due to filling of vacant positions, especially those in the GIS arena.

Figure 1-14 illustrates that staffing levels within the ITSD have fallen slightly from fiscal years 2002 through 2007. Program (distributed) IT staffing levels have increased by over four FTEs during the same period.

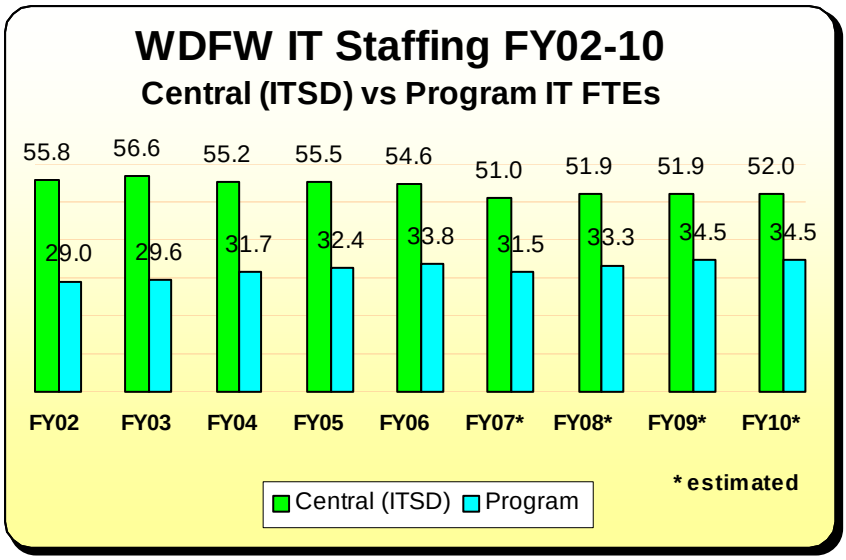

Figure 1-14. WDFW's central IT staffing effort (green) has decreased over time, while It staffing in the resource programs (cyan) have increased over the same period.

2. Agency IT Training

FY07 professional development (training) costs for WDFW totaled $257,700. This equates to an average expenditure of $172 per agency FTE.

FY07 professional development costs (exclusive of travel) for IT staff totaled $22,900 during the same period. IT staff training costs average out to $277 per IT FTE.

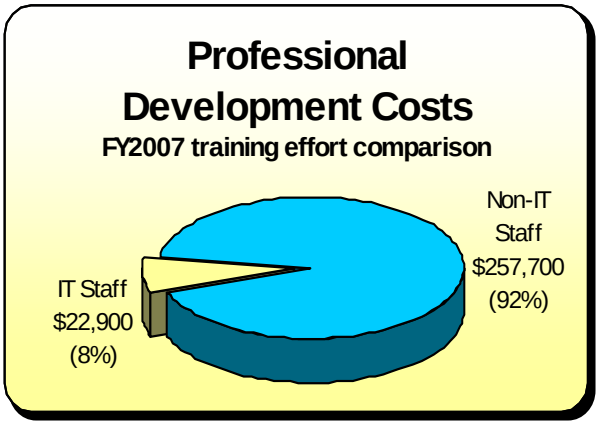

Figure 1-15. Professional development and training for IT staff was slightly more than 8% of overall agency training costs in FY07.

The IT portion accounts for 8.2% of the total amount expended for agency training, a reduction of nearly 1%.

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 to $140,000 during the 2007-09 biennium in order to implement the Enterprise Architecture Migration project (*see section 4*).

3. Hardware and Software Purchases

WDFW spent $1.79 million on IT software and hardware purchases, maintenance and leases during FY07.

Hardware expenditures of $1.35 million include systems and peripherals such as printers and scanners; capture devices such as portable data loggers and Personal Data Assistants (PDAs); and costs to continue implementation of the Sierra study, such as replacements of servers, hubs and switches, and their associated maintenance costs.

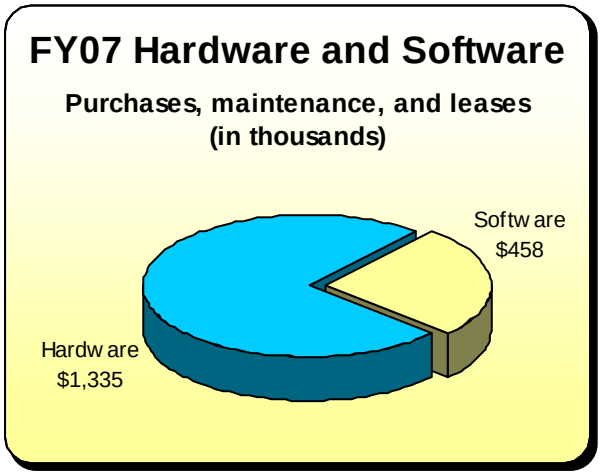

Figure 1-16. WDFW hardware and software costs totaled nearly $1.8 million in FY07.

The hardware total also includes $690,700 in lease payments made to the Department of Information Services (DIS) for continuation of the WDFW microcomputer refresh program. The total leasing cost is expected to increase slightly in FY08, as the lease program expands to encompass virtually all microcomputers in the WDFW PC fleet.

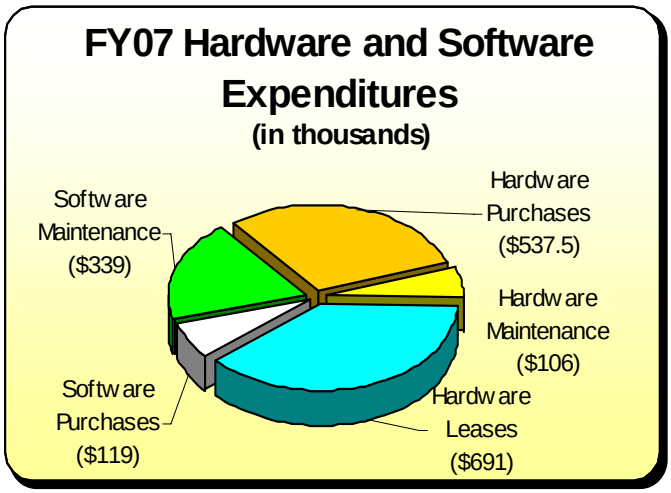

Figure 1-17. WDFW fiscal year 2007 hardware and software expenditures breakdown by major category.

FY07 purchases of software and software maintenance totaled $458,000. Included in this figure are software license renewals for such products as *Novell NetWare* (network operating system and client licenses), *F-Prot* (PC anti-virus), and *ArcINFO* (GIS). Also included are software licenses for new microcomputers that entered the lease program during FY07.

Figure 1-17 provides a visual summary of the major hardware and software cost category expenditures for FY07.

4. Total Agency IT Expenditures

Agency IT expenditures totaled $11.85 million for the fiscal year ending June 30, 2007 (FY07). This equates to 6.8% of the $174.19 million FY07 agency operating budget.

The FY07 WDFW IT effort was down from FY06 (8.4% of the $140.1 million total agency operating budget).

FY08 agency IT expenditures are expected to increase, as the agency begins its migration to Microsoft Exchange email services, as well as joining the state government network "forest."

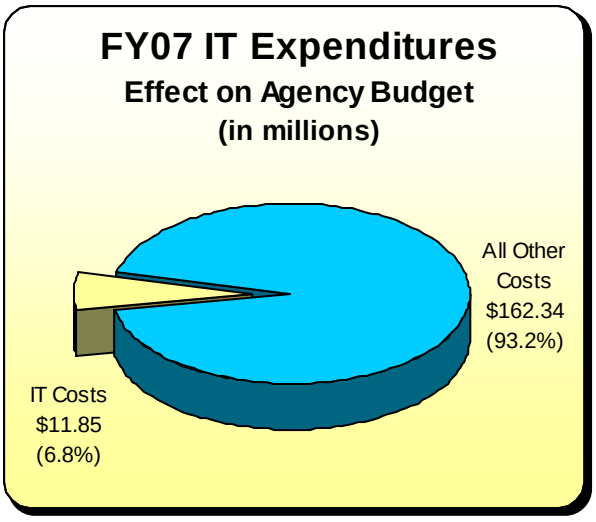

Figure 1-18. FY07 WDFW IT costs total 6.8% of the $174.19 million agency operating budget.

Total agency IT spending – as a percentage of the total agency operating budget – ranged from a low of 6.8% in FY07 to 8.4% in FY06.

A comparison of IT spending and agency-level operating budgets for fiscal years 2006-2010 appears in Figure 1-19.

The three largest FY07 IT expenditure components were salaries and benefits (52%); telecommunications (21%); and data processing services (9%). Salaries and benefits include the 1.6% pay raise granted by the state

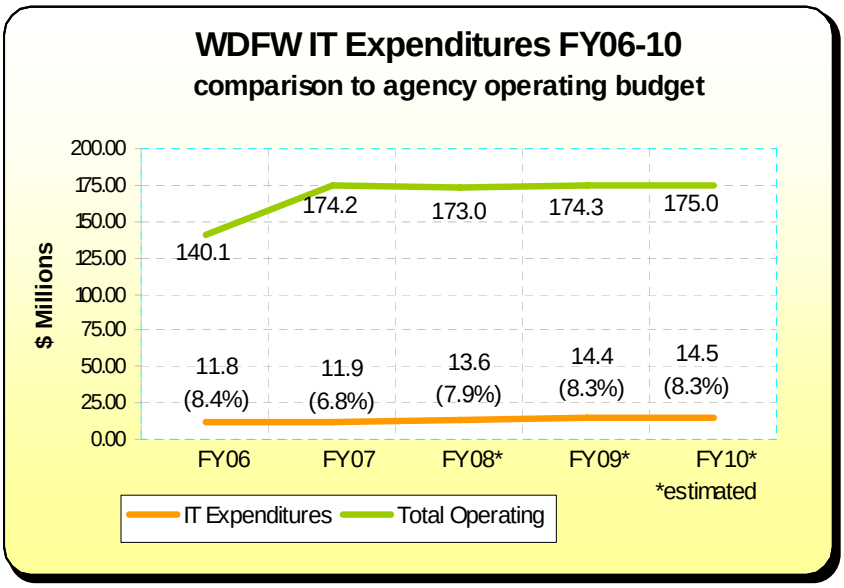

Figure 1-19. WDFW IT spending comparison to total agency operating budget for fiscal years 2006 through 2010.

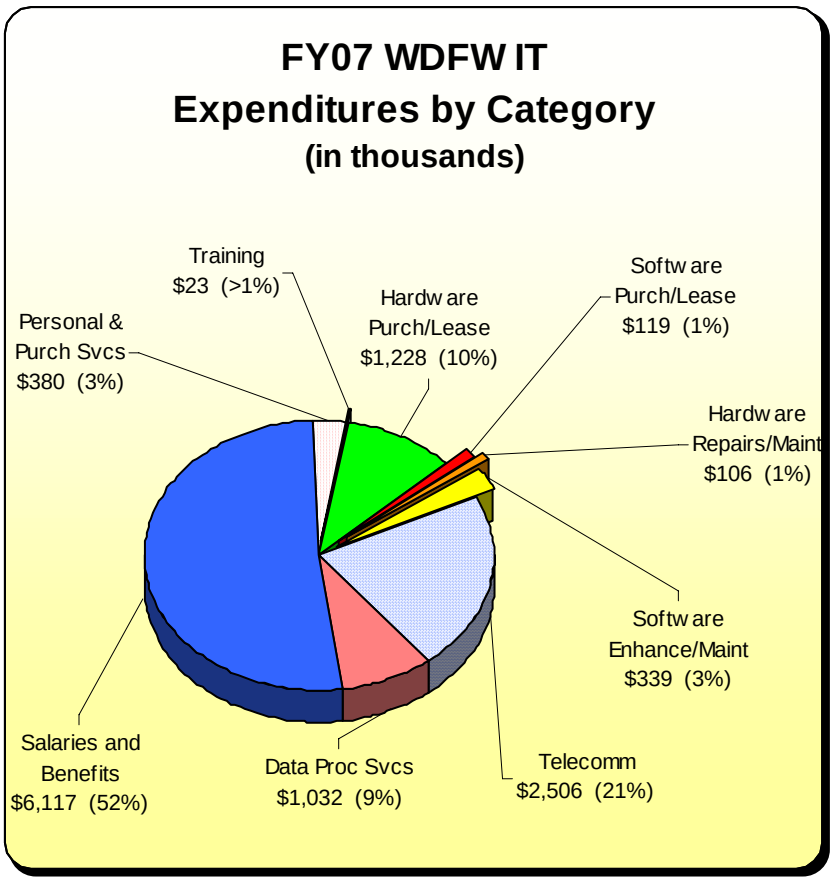

Figure 1-20. FY07 WDFW IT expenditure breakdown by major category.

legislature during the 2006 session. Telecommunications include landline and cell telephone service, as well as leased data line and Internet service provider charges. Data processing services include charges paid to DIS for WDFW use of the statewide financial system.

A breakdown of the major expenditure components for FY07 agency IT appears in Figure 1-20.

For dollar amounts associated with the individual IT cost elements shown above, please see Chapter 3, parts A and B.

F. Challenges and Opportunities

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

Figure 1-21. 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 and limited fiscal resources is a challenge. The IT Services Division strategic plan (Sierra report) provides a five-year vision for agency information technology that will help set direction and priorities.

- WDFW faces an opportunity during the 2007-09 biennium to migrating its current solutions to new systems based on common state IT architectures. Infrastructure change of the magnitude required has many risks, demands close management, and requires significant investment. Funding provided by the statewide Technology Pool will allow WDFW to join the statewide forest and migrate from Novell GroupWise email to the Microsoft Exchange de facto statewide standard. This will benefit WDFW in the long term by allowing it to be more closely aligned with other agencies.

G. Solutions: Current and Future IT Investments

1. Current IT Investments

a. Fleet Management

WDFW operates a fleet of over 1,000 vehicles and assorted heavy equipment. 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 sustainability requirements. WDFW, in response to Executive Order 05-01, has selected a vendor to provide Asset and Fleet Management services. The vendor is TERO Consulting. WDFW did not purchase the software, but contracted with the vendor as an Application Service Provider. WDFW will continue to implement the system for fleet management, and potentially expand use to work orders in FY08.

b. Hydraulic Project Approvals

By state statute, any citizen, organization, or government must obtain an HPA before beginning a project within state waters. WDFW completed the development of Release 2 of the Hydraulic Project Management System (HPMS) to automate the review and issuance of HPAs. Funding for FY08 from internal sources is being used to develop a public data access tool. No development on HPMS is planned beyond FY08.

c. 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). Outdoor Central 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. Some other system features are still under development and completion.

d. 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 will bring the agency into alignment with the rest of state government. During FY08, project planning will clarify the scope and schedule. The implementation of Active Directory, and the state Enterprise Forest, is expected in the second half of FY08. Planning for migration to the DIS managed Exchange service will occur in FY08.

WDFW also received funding of $302K for server and network equipment replacement. The equipment replacement schedule and approach are being planned in cooperation with DIS.

e. Habitat Work Schedule

In FY07, WDFW received federal funding to construct the Habitat Work Schedule (HWS). HWS is a web-based system that will be used by salmon recovery partners to identify salmon recovery habitat restoration projects. The first phase of HWS is under development and will be completed in about November 2007. Additional enhancements will follow. HWS is out-sourced to InterLocking, a subsidiary of Paladin Data Systems of Poulsbo, WA.

f. Integrated Project Review and Mitigation Tools

The Legislature funded work in the 2007-09 biennium on the Integrated Project Review and Mitigation Tools project (IPRMT). This project is sponsored by the Governor's Office of Regulatory Assistance. IPRMT is an interagency toolset that will facilitate integrated review of projects that require environmental permits, such as the WDFW Hydraulic Project Approval (HPA). In FY08, WDFW will work with other local, state, and federal agencies to integrate the business rule that are used to review and condition permits. IT activity will concentrate in conceptual architecture and database interfaces. WDFW has funding of $200K for the biennium to support business rule integration processes.

2. Planned IT Investments

a. Fleet Management

WDFW expects to continue the Fleet Management initiative though FY07 and the 2007-09 biennium. The current approach described above will be evaluated later in FY07 and a decision made on the preferred solution and future direction.

b. Recreational Licenses

The operation of the WILD system will continue through the 2007-09 biennium. However, continued demand for changes will make WILD a dynamic system requiring constant attention for the remaining life of the system. The contract with Outdoor Central runs through January 2011.

c. Personnel and Payroll

The customization of TotalTime described above is planned to end with the end of FY07. However, there will be active maintenance required, and changes to the state HRMS could require additional modifications to TotalTime.

d. Information Technology Strategic Direction – IT Systems Architecture

As described under Current Projects, WDFW will replace Novell e-Directory with Microsoft Active Directory, and replace Novell GroupWise with Microsoft Exchange. These changes are consistent with the State Enterprise Architecture direction. These changes for the 2007-09 biennium are dependent on legislative funding of $1.38 million. Other WDFW architecture changes may follow in the next biennium, depending on success and funding.

WDFW also needs to address aging department server and network infrastructure. A significant portion of the server fleet and the network gear will reach manufacturer end-of-life in the 2007-09 biennium. WDFW has $302K to replace obsolete servers and network infrastructure in 2007-09. Additional hardware replacement will be needed in future biennia.

e. 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. During the 05-07 biennium WDFW conducted internal scoping and requirements discussions. A findings and recommendations document will be published in September 2006. No legislative funding request is currently planned. Given the mission critical status of LIFT, an action plan using internal developer resources is expected to be the main option for an incremental replacement of LIFT.

f. Habitat Work Schedule

A key part of the state Salmon recovery strategy is the management and implementation of on-the-ground projects to enhance salmon habitat and recovery. HWS will track salmon recovery projects from the idea/inception stage through the process to review, validate, coordinate, and obtain project funding. Following phase 1 of HWS in 2007, WDFW expects to continue to expand and enhance the system in future years.

g. 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. Work in 2007-09 will concentrate on business process integration. In future biennia, IT system integration will be necessary to implement revised business rules and interagency permit application review. These changes may lead to a major revision of the WDFW Hydraulic Project Management System.

H. Prioritization Process

The Executive Management Team (EMT) functions as the department's IT policy setting body. The Business Services ITSD Manager, working with the Deputy Director, 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 ITSD Manager and the Chief Scientists for the Fish, Wildlife, and Habitat programs. CDOC promotes integrated data management in support of science-based management strategy.

Figure 1-22 provides a pictorial representation of the various WDFW committees and their roles in establishing, reviewing, and prioritizing agency IT policy.

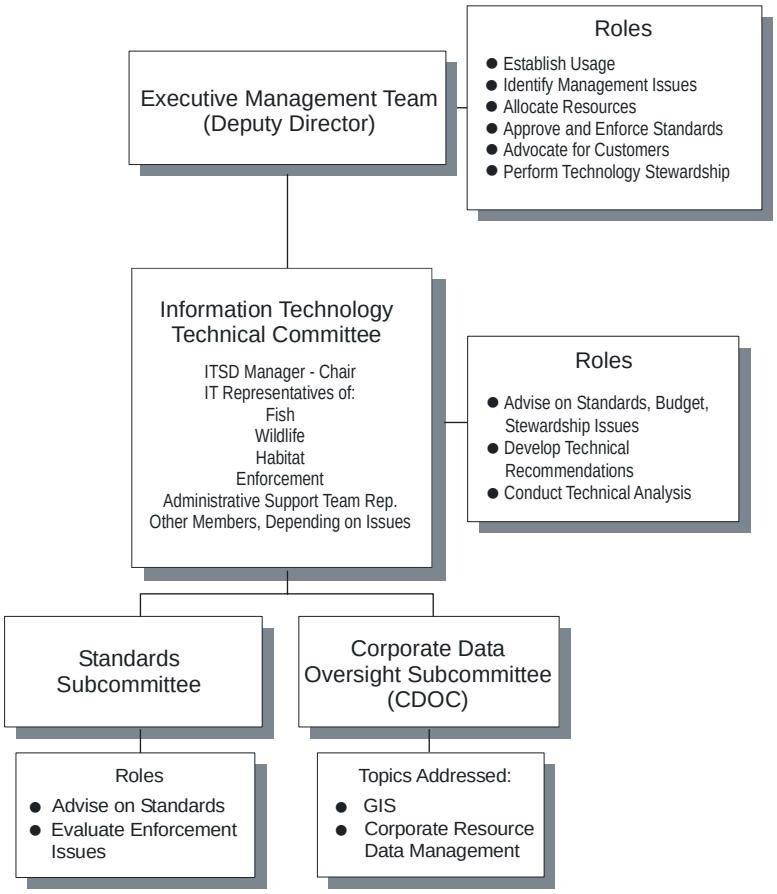

Figure 1-22. A number of committees help shape WDFW IT policy.

2. Agency Strategic Business Plan

The WDFW updated its Strategic Goals, Objectives and Performance Indicators in September 2006. The document is incorporated herein as Appendix A.

It is also available as a separate, online document at http://wdfw.wa.gov/depinfo/budget/2007-2009_strategic_plan_budget_submittal.htm.

A. Working Toward our Vision: 2007 - 2009 Strategic Direction

Washington state citizens rely on the Department of Fish and Wildlife to protect and sustain fish and wildlife resources and support the Northwest way of life that so many of us treasure. We hold this public trust in high esteem and strive to meet the challenges that put our focus on fish and wildlife protection and sustainability to the test. We understand that without abundant populations of fish and wildlife, the quality of life in our region would be seriously compromised.

During the 2007-09 biennium, the Department will work to stabilize the foundation we need to realize our vision and fulfill our mission. We will maintain and build the public assets we are entrusted with and eliminate liabilities that drain our financial resources. We will identify, seek funding and begin to fix ailing facilities and infrastructure that are crucial to our mission. We will focus on developing partnerships with other agencies and organizations, tribes and citizens that make us effective and efficient in our operations. We will educate youth and adults to foster a stewardship ethic toward fish and wildlife. We will seek policy support and stable funding to manage the increased demands being placed on fish and wildlife resources in the State.

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. Vision Statement

Make Washington State a world-class outdoor destination by fostering an appreciation of abundant and sustainable fish and wildlife resources and their ongoing contributions to the Northwest quality of life.

D. Strategic Goals and Objectives

WDFW strategic goals and objectives for the 2007-09 biennium are summarized below. For detailed information, including specific activities, strategies, and performance measures, please refer to pages 17-32 of Appendix A.

Goal I Fish and Wildlife: Achieve healthy, diverse and sustainable fish and wildlife populations and their supporting habitats.

- Objective 1: Complete the Puget Sound Nearshore Feasibility Study by September 2008.
- Objective 2: Develop and implement Populations by June 30, 2009.
- Objective 3: Beginning July 1, 2007, and annually thereafter, provide data requirements for evaluating ESA-listed salmon recovery goals and watershed health in key selected sites.
- Objective 4: By 2009, ensure 100% ballast water compliance by increasing vessel inspections on vessels entering Washington waters.
- Objective 5: By June 2009, develop a co-management-based comprehensive Steelhead Management Plan and begin implementation of the plan.
- Objective 6: Annually sample 100% of sick and dead deer and elk reported by the public and examined at Wildlife check stations, that meet scientifically established criteria for having the highest likelihood of being infected with CWD (chronic wasting disease).
- Objective 7: Provide assistance in the energy projects by June 30, 2009.
- Objective 8: Help Implement the Governor's initiative on salmon recovery by June 30, 2009.
- Objective 9: Initiate monitoring and evaluation of biodiversity for all owned and controlled lands by June 30, 2009.
- Objective 10: Provide instream flow science, data, and technical assistance to watershed planning units and to the Federal Energy Regulatory Commission (FERC) for relicensing of one hydroelectric project by June 30, 2009.
- Objective 11: Implement WDFW's obligations under the Forests and Fish rule by June 30, 2009.

- Objective 12: Annually sample 100% of sick and dead wild birds that meet scientifically established criteria for having the highest likelihood of being infected with avian influenza or West Nile virus.
- Objective 13: By 2009, reduce the introduction of aquatic invasive species into Washington waters.
- Objective 14: Continue current grazing pilot project and establish three new pilot grazing projects by June 30, 2009.
- Objective 15: Contribute to salmon recovery by performing statutorily required fishway maintenance through June 30, 2009.
- Objective 16: Begin specific implementation of key activities identified in the Watchable Wildlife Strategy and in the Endangered Species Recovery and Game Management Plans by June 30, 2009.
- Objective 17: Strengthen assessments and regional management of coastal rockfish stocks and produce annual Puget Sound oceanographic sub-basin surveys by June 2009.
- Objective 18: Implement a joint fisheries patrol and uniform fishery rules to ensure single and easily understandable fishing regulations by June 30, 2008.
- Objective 19: Restore habitat functions for fish and wildlife in post-fire areas by June 30, 2009.
- Objective 20: Maintain elk populations through the winter and reduce elk damage to private lands on or by June 2009.
- Objective 21: Protect wild Chinook in the Puget Sound (Marine Areas 5-13) by June 30, 2009.

Goal II Public Benefit: Ensure sustainable fish and wildlife opportunities for social and economic benefit.

- Objective 22: Increase the private properties available for public hunting/viewing access by 30 landowners by June 30, 2009.
- Objective 23: Add three new American with Disability Act (ADA) access areas sited by June 30, 2009.
- Objective 24: By 2009, design and renovate three hatchery facilities to meet 100% of the instream flow standards and fish passage compliance.

- Objective 25: Increase fish passage by opening 600 new stream miles by June 30, 2009.

- Objective 26: Eliminate 60% of the sea lion-caused mortality to salmonids as measured at the Bonneville Dam and establish a baseline sea lion predation rate on brood stock white sturgeon by June 30, 2009.

- Objective 27: Provide for public safety and conservation by increasing compliance with fish and wildlife laws from 85% to 90% by June 30, 2009.

- Objective 28: Implement five Wildlife Lands Stewardship actions by June 30, 2009.

- Objective 29: Assist communities in the production and/or completion of ten wildlife-viewing projects or festivals by June 30, 2009.

- Objective 30: Improve the condition of existing hatchery facilities by reducing the maintenance backlog by a minimum of 10% by 2009.

- Objective 31: Increase fishing opportunities by increasing access to hatchery fish by June 30, 2009.

Goal III Funding: Ensure effective use of financial resources in order to meet the needs of the states fish and wildlife resource for the benefit of the public.

- Objective 32: Ensure that the 104 Wildlife Fund reaches 100% of the ongoing cash reserve target by June 30, 2009.

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

- Objective 33: Decrease the number of verified complaints of bear and cougar to nine per 100,000 citizens by 2009.
- Objective 34: Increase officer field time and efficiency by June 30, 2008.
- Objective 35: Build 100% strategic planning, performance management, and accountability standards, as required by state law, by June 30, 2009.
- Objective 36: Renew WDFW's technology assets by June 30, 2009.
- Objective 37: Complete the Phase 1 migration of WDFW information technology infrastructure to a base that is consistent with the rest of state government by June 30, 2009.
- Objective 38: Improve customer service satisfaction levels by June 30, 2009.
- Objective 39: Implement 10% of the WDFW long-range (year 2050) sustainability goals by June 30, 2009.
- Objective 40: Improve the management and performance of WDFW capital projects and facilities by June 30, 2009.

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

- Objective 41: Implement the Mid-Columbia Habitat Conservation Plan for salmon recovery by June 30, 2009.

Goal VI Employee Goal: Create an agency 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 agency.

- Objective 42: Increase agency's value and understanding of performance management and accountability methods and results by June 20, 2009.
- Objective 43: Fully implement the agency wellness program and expand it to the regions by June 20, 2009.

- Objective 44: Promote and enhance internal communications on business practices and other issues between programs and regions at least twice a year.

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 expenses and budget figures shown here reflect the entire agency, not just the Information Technology Services Division of the Business Services Program. All information is as of June 30 of the applicable fiscal year, unless otherwise noted.

Beginning with this Portfolio update, WDFW will also include the previous fiscal year figures for comparison purposes.

FY06-07 totals are actuals, rounded to the nearest hundred; FY08-10 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
FY06 (Actual)	$11,735,400	$973,600	$162,200	$142,400	$377,000
FY07 (Actual)	$11,850,200	$1,228,200	$118,700	$106,300	$339,300
FY08 (Projected)	$13,626,300	$1,292,800	$122,300	$109,500	$658,400
FY09 (Projected)	$14,450,700	$1,331,600	$126,000	$112,800	$658,400
FY10 (Projected)	$14,478,800	$1,371,500	$129,800	$116,200	$658,400

Reporting Period	Telecommunications (Object EB, less GA Mail)	Data Processing Services (Object EL)	Other Major IT Expenses (Purpose)
FY06 (Actual)	$2,261,100	$1,096,700	None
FY07 (Actual)	$2,505,600	$1,032,200	None
FY08 (Projected)	$2,580,800	$1,063,200	None
FY09 (Projected)	$2,658,200	$1,376,100	None
FY10 (Projected)	$2,737,900	$1,417,400	None

B. IT Personnel

The information below is as of the state fiscal year ending June 30, 2007 (FY2007); FY08-10 figures are estimated.

Reporting Period	Total Agency IT FTEs (includes WMS positions)	Salaries and Benefits	Personal and Purchased Services	Professional Development of IT Staff
FY06 (Actual)	88.4	$6,170,400	$528,900	$23,100
FY07 (Actual)	82.5	$6,117,200	$379,800	$22,900
FY08 (Projected)	85.1	$7,349,300	$350,000	$100,000
FY09 (Projected)	86.4	$7,672,600	$475,000	$40,000
FY10 (Projected)	86.5	$7,672,600	$350,000	$25,000

C. Personal and Workgroup Computing

The information below is as of the state fiscal year ending June 30, 2007 (FY2007); FY08-10 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
FY06 (Actual)	1,542.7	1450	500	42	294
FY07 (Actual)	1,633.4	1576	377	42	264
FY08 (Projected)	1,545.0	1576	400	42	400
FY09 (Projected)	1,537.9	1576	400	42	400
FY10 (Projected)	1,537.9	1576	400	42	400

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
FY06 (Actual)	55	1	0	New application deployment Increased application utilization Implement Sierra architectural study recommendations
FY07 (Actual)	56	12	0	Server consolidation/replacement Implement Sierra architectural study recommendations
FY08 (Projected)	52	8	0	Server consolidation/replacement Implement Microsoft Migration
FY09 (Projected)	50	10	2	Server consolidation
FY10 (Projected)	52	0	0	Server consolidation

3. Network Connectivity

Reporting Period	% Agency staff with *Inside Washington* access	Agency primary network operating system
FY06 (Actual)	74.2% (1144/1542.8 users)	Novell NetWare
FY07 (Actual)	70.4% (1150/1,633.4 users)	Novell NetWare
FY08 (Projected)	74.4% (1150/1,545 users)	Microsoft Windows Server
FY09 (Projected)	74.8% (1150/1,537.9 users)	Microsoft Windows Server
FY10 (Projected)	74.8% (1150/1,537.9 users)	Microsoft 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)
FY06 (Actual)	Microsoft Office 2000 Professional	Yes, but not Microsoft DOCX (Open XML) format
FY07 (Actual)	Microsoft Office 2000/2003 Professional	Yes, but not Microsoft DOCX (Open XML) format
FY08 (Projected)	Microsoft Office 2003/2007 Professional	Yes, including DOCX, once migration to Office 2007 is complete.
FY09 (Projected)	Microsoft Office 2007 Professional	Yes
FY10 (Projected)	Microsoft Office 2007 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 subsubobject 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.

3.D. Geographic Information Systems (GIS) Resources

The information below applies to the state fiscal year ending June 30, 2007 (FY07). 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	5	Yes
Program Area Support	20	Yes

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

Vendor Name	ESRI
Product Name	SdeServer
Number of Licenses	2 production, 1 staging

Vendor Name	ESRI
Product Name	ArcIMS
Number of Licenses	2 production, 1 staging

Vendor Name	ESRI
Product Name	Arcview3 for Unix
Number of Licenses	1

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

Vendor Name	ESRI
Product Name	Arcview ArcGIS (standalone)
Number of Licenses	51

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

Vendor Name	ESRI
Product Name	Spatial Analyst (standalone)
Number of Licenses	5

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

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	Altair Engineering
Product Name	Portable Batch System Professional
Number of Licenses	1

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	MapInfo
Product Name	Mapinfo
Number of Licenses	7 Development, 1 runtime

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

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

Vendor Name	ESRI
Product Name	ArcPad
Number of Licenses	9 user copies, 2 application builder

	3. GIS Hardware
Make/Model	Sun E450
How Many	1
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes

Make/Model	Sun E250
How Many	1
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes

Make/Model	Sun 280R (ims servers)
How Many	2
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes

Make/Model	Compaq/HP Proliant ML570
How Many	1
Included in Section 3C.2 "Total Number of PCs?"	No
Included in Section 3C.6 "Total Number of Servers?"	Yes

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

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

	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 Priority Habitats and Species Data Release System – Unix based system supporting production of maps and data CDs. 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. Includes a set of unix based tools for cleanup, routing and eventing hydrography 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.

Application Name / Description ***(Continued)***	Land Information System – System for tracking the location and attributes of real estate managed by WDFW (in development) MapSys – Unix based application for creating seabird density maps based on PSAMP data. 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. Wildlife Survey Data Mangement (WSDM) System – Database and tools to support integrated management of formerly disparate species occurrence datasets (in development) Habitat Work Schedule Image Service – Web based service to provide access through Fortress to an Open Geospatial Consortium (OGC) compliant service containing various spatial datasets used by the Habitat Work Schedule application developed by Interlocking Software. GIS Metadata Application – Internal web application which provides a searchable repository of metadata for significant geodatasets.

	5. GIS Database(s) Environment
Vendor Name	Microsoft SQL Server
Number of applications	7 in production (salmonscape, GoHunt, PSAMP, Orthophoto Image Service, habitat work schedule image service, GIS metadata web application) 2 in development (wsdm, , land information system)

	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 verification letter due August 31 per state government IT Security Policy and Standards is included in Section 6 of this Portfolio. This letter has also been submitted under separate cover 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 Jim Eby, WDFW Information Technology Services Division Manager.

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 June 16, 2006. This satisfies the DIS/ISB requirement for an independent audit of the agency IT security plan within three years of the previous audit (July 10, 2003).

The next audit will be completed on or before June 16, 2009, unless otherwise directed by the ISB.

2. Disaster Recovery/Business Resumption Plan

a. The annual state government Disaster Recovery/Business Resumption Plans verification letter due August 31 is included in Section 6 of this Portfolio. This letter has also been submitted under separate cover 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 Disaster Recovery/Business Resumption Plans is Scott Loerts, 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; *WildWatch* web cameras; and more.
  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.
  - A new WDFW Commercial License web site went on-line in April 2006 as part of Portal Release 1. WDFW will also benefit from improved Master License Services this biennium on the Portal.
    http://wdfw.wa.gov/lic/commercial
  - Currently in development is an Integrated Environmental Permitting site that will include on-line applications for WDFW's Hydraulic Project Approvals. The site will offer 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 **Washington Interactive License Database** (WILD) system provides improved public access for recreational license sales, CDs and books. As part of WILD, WDFW has also implemented an agency call center that integrates public calls for both license sales and general information. A successful cutover with a new five-year contract vendor, Outdoor Central, was effective for the 2007 license year. https://fishhunt.dfw.wa.gov

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

- **Wild About Washington** is now streaming on the web. This popular in-house video production also allows prospective viewers the option to save the latest show in Apple iPod format for later viewing. http://wdfw.wa.gov/pubaffrs/wildwash

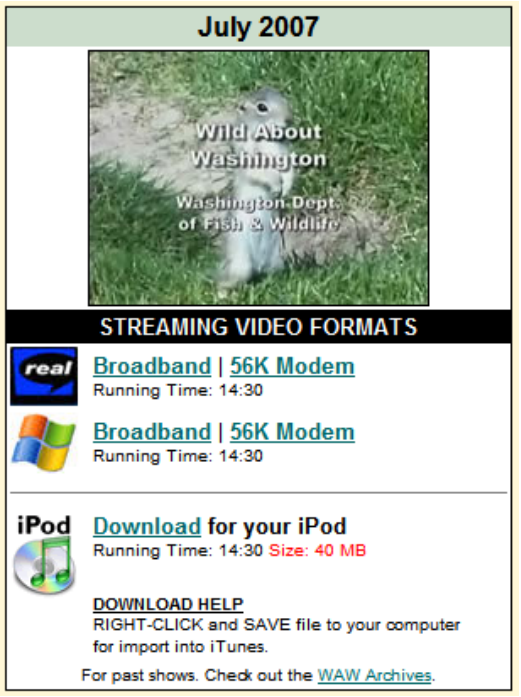

Figure 3-3. Wild About Washington is now available in Apple iPod format.

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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 – see 3.G.10 *(new)*
- Fleet Management – see 3.G.11 *(new)*

1. Licenses and Fish Tickets (LIFT)

a. Application owners:

- Frank Hawley, Business Services Program - Licenses Division (data steward licenses);
- Lee Hoines, Business Services Program – IT Services Division (data steward fish tickets);
- Sharon Frerichs, Business Services Program - IT Services Division (code responsibility)

b. Customer/business area owner:

- Business Services - 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 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):
[X] 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: Business Services Program Administration

b. Customer/business area owner: Shawn Brown, Business Services Program – Information Technology Services Division (data steward)

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 (1750 – 2000+) 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: 2007 (leave request module added)

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: Labor Distribution Module (estimated completion: Fall 2007).

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

l. Application size and technical characteristics: JAVA WAR file; Directory (associated files on local drive): 296MB.

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

n. Public availability of data (check all that apply):
[X] Not a public database
[ ] Exempt from public disclosure
[X] Available by written request (summary data)
[ ] 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: Business Services Program – Information Services Division, Brian Fairley (Project Manager)

b. Customer/business area owner:

- Habitat Program, Peter Birch (business process owner);
- Habitat Program, Pat Chapman (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, plus Habitat Program administrative staff

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)

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

j. Planned replacement or modifications: Developing a tool to allow public access (read-only) into selected HPMS data – planned for Q4 2007 implementation. 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 Enforcement ARS system to retrieve Enforcement User information.

n. Public availability of data (check all that apply):
- [ ] Not a public database
- [ ] Exempt from public disclosure
- [X] Available by written request
- [ ] Documented request procedure on website (provide URL)
- [X] Direct query on website (provide URL) – *in progress, Planned for Q4 2007*
- [ ] GIS online mapping (provide URL)

4. Washington Interactive License Database (WILD)

a. Application owner: Mike Keeling, Business Services Program – Information Technology Services Division (data steward)

b. Customer/ business area owner: Frank Hawley, Business Services Program - Licenses Division

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. The sales data are stored at the MCI facility in Sacramento CA for the first-generation system. For the second-generation system implemented 7/01/2006, data is stored by Outdoor Central in Nashville, TN. Data for both systems is transferred to WDFW and other state agencies for our use.

Figure 3-4. The recreational razor clam season fills Washington beaches with licensed diggers.

e. Number of users: 2,561,171

f. Agency programs, business processes supported: Directly related to license sales revenue; supports agency activities in Fish, Wildlife and Business Services.

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, Outdoor Central, implemented the new system statewide as of July 2006.

k. Ownership of application: MCI until June 2006; Outdoor Central 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. Interfaces to systems at DSHS, OST, OFM, and DOL.

n. Public availability of data (check all that apply):
[X] Not a public database
[ ] Exempt from public disclosure
[X] 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, Business Services Program - Information Technology Services Division (data steward)

b. Customer/business area owner: Cathy Drew, Business Services Program - Financial Services Division

c. Application type: Microsoft Visual FoxPro 8.0

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: barcode data input

k. Ownership of application: Agency

l. Application size and technical characteristics: 130 MB

m. Interfaces to other major systems: none

n. Public availability of data (check all that apply):
[X] 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: Business Services Program – Information Services Division, Brian Fairley (Project Manager)

b. Customer/business area owner: Business Services Program – Information Technology Services Division, Project Management Section, Brian Fairley (data steward).

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: 502, 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: Fall 2005 – CAPS Classic (v2.2) and CAPS Financial (v1.x) implemented September 2005 – currently being modified (v2.x) to integrate with OFM's The Allotment System (TALS).

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: Spending plan module has being implemented for state funded spending plans. Modifying salary and benefit data source to OFM's Salary Project System (SPS) data and adding contract-related spending plans.

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: AFRS, OFM – SPS, OFM – TALS-AMR.

n. Public availability of data (check all that apply):
[X] Not a public database
[ ] Exempt from public disclosure
[X] 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: Enforcement Program

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

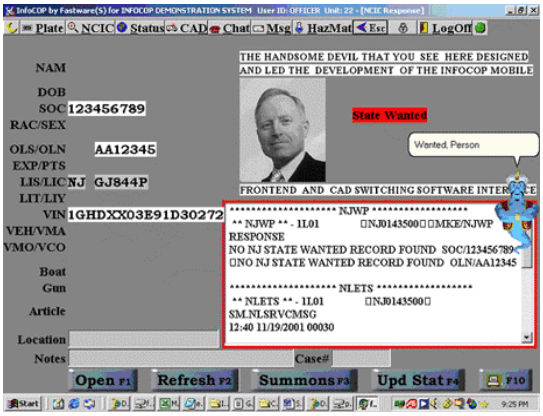

Figure 3-5. Info-Cop provides Enforcement staff with fast, accurate data. *(photo credit: Info-Cop)*

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: NA

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

j. Planned replacement or modifications: None

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: 8.5 MB; Server side: SQL Database on Windows 2000 Server.

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):
[X] Not a public database
[X] 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 – Information Technology Services Division, Business Services Program (data steward)

b. Customer/business area owner: Karen McManus - General Accounting Office, Financial Services Division, Business Services Program

c. Application type: PowerBuilder 10.0

d. Description: Application allows entry/modification of Agency Vehicles and Credit Cards. Each vehicle is assigned a operating master index code referred to as the "Home Code". The VMTS System downloads AFRS coding daily and has the capability to refresh manually as needed. Mileage expenditures are charged to the appropriate master index code after the collection of mileage information via the Web based Mileage collection application. The Voyager Credit Card bill is also processed via the VMTS System to charge the appropriate expenditure master index with credit card charges. The Journal Voucher is submitted electronically via the IBM mainframe after FTE file to the IBM Mainframe. Safeguards are in place to ensure expired expenditure codes cannot be used. Email is incorporated in VMTS as a way of communicating with the vehicle contacts and program contacts. The VMTS System has multiple reports available for management and journal voucher backup. The VMTS System replaced an agency mainframe system.

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

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

g. Implementation date: 2001

h. Date significantly modified: none (upgraded to PowerBuilder 10 in 2005)

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):
[X] 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 owner:

- Chief Bruce Bjork – Enforcement Program (business process owner)
- Mike Keeling – Business Services Program, Information Technology Services 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.)

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.23 for database information).

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

n. Public availability of data (check all that apply):
[X] 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 (new)

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

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

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

d. Description: Habitat Work Schedule (HWS) will be a centralized web-based tool that will help 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: 100

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

g. Implementation date: In progress – planned for Q4 2007

h. Date significantly modified: In progress – planned for Q4 2007

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

j. Planned replacement or modifications: Some funding will be available next (Federal) fiscal year to enhance the HWS. Amount of funding and types of changes are unknown at this point.

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

l. Application size and technical characteristics: In progress – planned for Q4 2007

m. Interfaces to other major systems: RCO (formally IAC) PRISM, WRIA 9 HWS (King County).

n. Public availability of data (check all that apply):
[ ] Not a public database
[ ] Exempt from public disclosure
[X] Available by written request
[ ] Documented request procedure on website (provide URL)
[X] Direct query on website (provide URL) – in progress, planned for Q4 2007.
[X] GIS online mapping (provide URL) – in progress, planned for Q4 2007.

11. Fleet Management (new)

a. Application owner:

- Shawn Brown – Business Services Program, Information Technology Services Division (data steward)
- Mike Keeling - Business Services Program, Information Technology Services Division (project manager)
- Tero Consulting, Ltd. (code responsibility) http://www.teroconsulting.com

b. Customer/business area owner: Ross Fuller - Office of the Director

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

d. Description: WDFW has utilized Tero Consulting's "Web Work" Computerized Maintenance Management System (CMMS) to comply with the fleet management standards mandated by Executive Order 05-01.

e. Number of users: 30

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

g. Implementation date: Spring 2007.

h. Date significantly modified: Phase 1 went online during spring 2007.

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.

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, Voyager credit card, DOT (fuel data).

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

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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.
- Heritage Database (HRTG) – see 3.H.4.
- Hydraulic Permit Management System (HPMS) – see 3.H.5.
- Marbled Murrelets Database (MAMU) – see 3.H.6.
- Personnel Database – see 3.H.7.
- PHS Polygon Database (PHSPOLY) – see 3.H.8.
- Spotted Owl Site Centers (SOCEN) – 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.
- Intensive Monitoring of 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 – see 3.H.24. *(new)*
- Fleet Management – see 3.H.25. *(new)*

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

a. Database commercial name: MS 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 or fax.

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

e. Ownership of database: Susan Markey, 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: Network server MS Access data files backed up in routine agency server backup process.

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

2. Licenses 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, 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: Frank Hawley, Business Services Program - Licenses Division (data steward licenses); Lee Hoines, Business Services Program – IT Services Division (data steward fish tickets); Sharon Frerichs, Business Services Program - IT Services Division (code responsibility)

f. Size of database (in terms of storage requirements): Operational and reporting requirements are roughly 4.2 GB.

g. Number of records in database: 12 million

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

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
[X] 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: MS SQL Server, Novell LDAP

b. List of applications supported: Total Time (see 3.G.2)

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, Business Services Program – Information Technology Services 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 650,000+ records.

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

i. Backup frequency: Daily, via WDFW automated network backup process.

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

4. Heritage Database (HRTG)

a. Database commercial name: ARC/INFO, SAS

b. List of applications supported: The data locations and attribute data are digitized via an ARC/VIEW entry application, which then feeds SAS and ARC/INFO job streams.

c. High-level description: WDFW's Wildlife Heritage database (HRTG) consists of locations and descriptions of point occurrences of wildlife species of concern (monitor, sensitive, threatened, and endangered). The database is the agency's primary repository for threatened and endangered species data.

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

e. Ownership of database: Raj Deol, Wildlife Program

f. Size of database (in terms of storage requirements): Two versions of the database are simultaneously maintained in the UNIX environment, one in SAS (26 MB in size) and one in ARC/INFO 25 MB in size. The entire HRTG database UNIX work area consumes 2.0GB. This work area includes multiple generational data sets, a large library of ad hoc type analytical programs and mapping routines, and the ARC/VIEW entry application.

g. Number of records in database: 34322

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

i. Backup frequency: Its generation data sets are periodically TARed and then deleted from disk. Data residing on servers are backed up daily via agency automated server backup system.

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

5. Hydraulic Permit Management System (HPMS)

a. Database commercial name: MS SQL Server

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

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: Business Services Program – Information Technology Services Division – Data Management section, Debbie Wells (data steward)

f. Size of database: 450 MB.

g. Number of records in database: 248,000

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

i. Backup frequency: Daily

Figure 3-6. 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
[X] Available by written request
[ ] Documented request procedure on website (provide URL)
[X] Direct query on website (provide URL) – *in progress*
[ ] GIS online mapping (provide URL)

6. Marbled Murrelets Database (MAMU)

a. Database commercial name: ARC/INFO

b. List of applications supported: Access entry application and an ARC/INFO digitizing application.

c. High-level description/type of data collected: MAMU) is comprised of three databases: an INFO table, MMSURVEYS.TBL which contains individual survey effort information (who, when, weather, etc.), and two ARC/INFO covers MMDETECTIONS and MMSTATIONS. MMDETECTIONS contains the actual location, observed behavior, date, time, and observer of all murrelet detections (visual observation and audio detections) reported to WDFW. MMSTATIONS contains the locations of the survey stations from which most detections are reported from.

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

e. Ownership of database: Jane Jenkerson, Wildlife Program

f. Size of database (in terms of storage requirements): There are SAS versions of the attribute data sets using 6.9 MB, 408 KB, and 6.4 MB for the survey, station, and detection data respectively. UNIX disk use for data only equals 15.8 MB. Total disk space used for all UNIX data and program libraries equals 279.6 MB.

g. Number of records in database:

MMSURVEYS.TBL: 28077 (5 MB)
MMDETECTIONS: 30066 (8 MB)
station cover: 15771 (1.5 MB)

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

i. Backup frequency: Daily via agency automated server backup system

j. Public availability of data (check all that apply):
[X] Not a public database
[ ] Exempt from public disclosure
[X] 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; Safety and injured worker tracking and management; Employee training tracking; Correspondence generation (appointment letters, reminder and tracking letters).

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

e. Ownership of database: Office of the Director: Personnel Office – Penny Cusick-Warren (data owner); Business Services, IT Services Division – Peter Sweet (data steward)

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

g. Number of records in database: 64 tables; > 300,000 records
what to count here is debatable – many of the "tables" are actually views, as the GAP data we get from HRMS is not updatable by WDFW_HRMS users. If you just need numbers, those numbers are as good as any. If you need accurate numbers, we need to define terms as to what to count, then take the time to count it …

h. Frequency with which records are added, modified, and deleted: Daily. Six tables with bi-monthly downloads from HRISD. As of 7/1/2006, the HRISD data feed was replaced by HRMS. IT Services Division staff are actively working on a migration path.

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
[X] 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: ARC/INFO Workstation 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: Habitat Program: David Price (business process owner); Terry Johnson (data steward)

f. Size of database (in terms of storage requirements): 3.4 GB

ArcINFO Workstation:

- PHSPOLY Database (ArcInfo coverage located at /resdat/dfwlib/statewide and in the PHSDIGI/PHS_STATEWIDE workspace):
  23116 total polygons (4138 regions) in 1 coverage in 1 workspace (number of total polygons and regions will vary throughout the year) (46MB - size will vary throughout the year)

- TABLES_PHS - PHS Tables Directory (located at /resdat/dfwlib/system):
  Numerous Info tables (number will vary throughout the year)
  Most Important Tables: PHSPOLY_XREF (polygon cross-reference table for PHSPOLY) 37245 records; PHSEO (general information table) 5520 records; PHSDSCRP (descriptive information) 5520 records; PHSSRC (sources of information) 8099 records; PHSLULC (land use/land cover information) 2764 records, EOCODE_TBL (eocode descriptions) 942 records, and CRIT_TBL (mapping criteria code descriptions) 21 records. (109 MB - though size will vary throughout the year)

- PHSDIGI - PHS Digitizing Workspace (located at /resdat/gis_data_mgmt):
  12 permanent upper-level workspaces. A number of temporary workspaces will be created and deleted throughout a year. The most important workspaces are listed below. (4.69 GB - though size will vary throughout the year)

- PHS_STATEWIDE - PHS Spatial Data Update Workspace (located in the PHSDIGI workspace):
  Work directory for updating the PHSPOLY database (contains Arc Macro Language scripts for updating the database). There are currently 7 upper-level workspaces in the directory and several ArcInfo coverages. (1.28 GB – size will vary throughout the year)

- ATTENTRY - PHS Attribute Data Update Workspace (located in the PHSDIGI workspace):
  Work directory for updating the PHS attribute tables: PHSEO, PHSDSCRP, PHSLULC, PHSSRC (contains Arc Macro Language scripts for updating the database). There are currently 3 upper-level workspaces in the directory and several older versions of the tables. (58 MB – size will vary throughout the year)

- ROLLBACK - PHS Archive Directory (located in the PHSDIGI workspace):
  Currently 7 coverages in rollback directory (number will vary - eventually will be archived on CD). (1.02 GB)

- ZAPPOLY Database (located in the ZAPPOLY_STATEWIDE workspace):
  ArcINFO coverage for zapped (lost to development) information from the PHSPOLY coverage. Currently 1 coverage in the directory. (114 KB)

- ZAPPOLY_STATEWIDE - Update Workspace (located in the PHSDIGI workspace):
  Work directory for updating the ZAPPOLY coverage. Currently 4 upper-level workspaces in the directory .
  (4.29 MB)

- PHSPTS Database (located in the PHS_POINTS workspace):
  ArcINFO coverage for priority habitat points. Currently 1 coverage in the directory. (124 KB)

- PHS_POINTS - Update Workspace (located in the PHSDIGI workspace):
  Work directory for updating the PHSPTS coverage. Currently 3 upper-level workspaces in the directory .
  (287KB)

ArcSDE:

- PHSPOLY – Polygon Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  23116 total polygons in 1 data layer (number of total polygons and regions will vary throughout the year) (250 MB - size will vary throughout the year)

- PHSREGION – Overlapping Polygon Feature Class (ArcSDE data layer stored on SQLServer RDBMS):
  4138 polygons) in 1 data layer (number of total polygons will vary throughout the year). (250 MB - size will vary throughout the year)

- PHS Attribute Tables (stored on SQLServer RDBMS):
  PHSPOLY_XREF (polygon cross-reference table for PHSPOLY) 37245 records; PHSEO (general information table) 5520 records; PHSDSCRP (descriptive information) 5520 records; PHSSRC (sources of information) 8099 records; PHSLULC (land use/land cover information) 2764 records, EOCODE_TBL (eocode descriptions) 942records, and CRIT_TBL (mapping criteria code descriptions) 21 records.

- PHS_GEODATABASE - Update Directory (located under the PHSDIGI workspace):
  Work directory for updating the PHSPOLY and PHSREGION feature classes, plus the PHS attribute tables. Currently contains 5 geodatabases but PHS_HARN.mdb (291 MB) is the most important. PHS_HARN83.mdb contains PHSPOLY, PHSREGION and the PHS attribute tables that were converted from the ArcInfo coverage format to the ArcGIS geodatabase format. (436 MB – size will vary throughout the year)

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: Daily via agency automated server backup system.

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

9. Spotted Owl Site Center (SOCEN) Database

Figure 3-7. Spotted owl (*Strix occidentalis)*.

a. Database commercial name: ARC/INFO, ASCII

b. List of applications supported: In-house use for data extractions; portions sent to DNR TRAX (see item c., below).

c. High-level description: SOCEN is comprised of four databases: an ARC/INFO cover of the site center locations and summary site characteristics (SOCEN), an ASCII file named TRAKREF that is an audit trail of all editorial and input transactions, an ASCII file of site center history and biological status (FINALSOFILE), and an ASCII file of all sections (FINALTRSNEW) impacted by spotted owl 2.7 or 1.8 mile management buffer circles which is shipped to DNR's TRAX system.

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

e. Ownership of database: Wildlife and Habitat Programs; Wildlife Program – Raj Deol (data steward)

f. Size of database (in terms of storage requirements): The total project work area consumes 94 MB of disk space, but this also contains a number of compressed generational data sets and analytical programs:

ARC cover: 1244 records (199 KB)
TRAKREF: 5650 records (1.3 MB)
FINALSOFILE: 1248 records (375 KB)
FINALTRSNEW: 28212 records (985 KB)

g. Number of records in database: The total record count is 39,520 with total current data (as opposed to generational data sets kept online for recovery) use of disk at 2.8 MB.

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

i. Backup frequency: Daily via agency automated server backup process. Data sets are periodically TARed and removed from disk.

j. Public availability of data (check all that apply):
[ ] Not a public database
[X] 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, 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.

d. Location (Agency, DIS, vendor facility): Agency, DIS, and Outdoor Central vendor facilities

e. Ownership of database: Frank Hawley, Business Services Program - Licenses Division (business owner); Mike Keeling, Business Services Program – Information Technology Services Division (data steward)

f. Size of database (in terms of storage requirements): Operational and reporting requirements are roughly 20 GB.

g. Number of records in database: 103,697,616

h. Frequency with which records are added, modified, and deleted: Near real-time (at vendor)

i. Backup frequency: Daily (to Weekly)

j. Public availability of data (check all that apply):
[X] Not a public database
[ ] Exempt from public disclosure
[X] 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 8.0

b. List of applications supported: EPIC (see 3.G.5.)

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:

- Business Services Program - Financial Services Division (business owner);
- Shawn Brown, Business Services Program - IT Services Division, Data Management Unit (data steward)

f. Size of database (in terms of storage requirements): 100 MB

g. Number of records in database: 30,853

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

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
[X] 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: MS 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, Business Services Program – IT Services Division, Project Management Section (data steward)

f. Size of database: CAPS Classic 600Mb, CAPS Financial 500 Mb

g. Number of records in database: There are over 90 tables with varying record counts (several thousand).

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

i. Backup frequency: Daily

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

13. Info-Cop

Figure 3-8. Mobile computer mounted in vehicle of WDFW Enforcement officer.

a. Database commercial name: SQL

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: Enforcement Program

f. Size of database: 60 MB.

g. Number of records in database: 203,552

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

i. Backup frequency: Daily

j. Public availability of data (check all that apply):
[X] Not a public database
[X] 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: Sybase

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: Financial Services Division, Business Services Program (business owner); Data Management Unit, IT Services Division, Business Services Program – Shawn Brown (data steward)

f. Size of database: 150 MB (server allocation)

g. Number of records in database: 433,000

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):
[X] 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: MS Access (Windows)

b. List of applications supported: None

c. High-level description/type of data collected: Estimated sport harvest - salmon, steelhead, and sturgeon

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): 13 MB

g. Number of records in database: app. 35,000 records.

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

i. Backup frequency: MS Access data files backed up in routine agency server backup process.

j. Public availability of data (check all that apply):
[X] Not a public database
[ ] Exempt from public disclosure
[X] 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: MS Access (Windows)

b. List of applications supported: Standard retrieval, error-check and summarization reports designed for internal use only (MS Access) (Transitioning to SQL Server in Fall of 2007)

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: Brodie Cox, Fish Program (data steward)

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

g. Number of records in database: 510,000

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

i. Backup frequency: Monthly, to CD-ROM

j. Public availability of data (check all that apply):
[ ] Not a public database
[ ] Exempt from public disclosure
[X] 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/fishcorn.htm

17. Spawning Ground Survey System

a. Database Commercial name: MS Access (Windows)

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: Monthly to CD-ROM during update season

j. Public availability of data (check all that apply):
[ ] Not a public database
[ ] Exempt from public disclosure
[X] Available by written request
[X] 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 ArcInfo (Unix environment)

b. List of applications supported: Data entry, data check, data retrieval routines for internal use (AML: ArcInfo Macro Language)

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: Martin Hudson, 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: Nightly/weekly to tape (with Unix systems backups); quarterly to CD-ROM

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

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); Brian Cosentino (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: Daily via agency automated backup system.

j. Public availability of data:
[ ] Not a public database
[X] Exempt from public disclosure
[X] Available by written request
[X] Documented request procedure on website (provide URL)
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, and Island Counties, with a partial dataset assembled for Pierce.

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: Daily via agency automated server backup system.

j. Public availability of data (check all that apply):
[ ] Not a public database
[ ] Exempt from public disclosure
[X] 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

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: David Price (business process owner); 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.

- Crest Gauge Data dB:
  Pending

- Temperature Datalogger Data dB:
  Pending

- 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: Daily via agency automated server backup system.

j. Public availability of data (check all that apply):
[ ] Not a public database
[ ] Exempt from public disclosure
[X] Available by written request
[X] Documented request procedure on website (provide URL)
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: SQL Server back end with MS Access front 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 and Streamnet.

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: Habitat Program: David Price (business process owner); Brian Benson (data steward)

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

- Tables (SQL Server): 102MB
- Images (jpeg): 1.6GB
- Workstations (MS Access) - FPDSI user interface; 33 users including 1 administrator, 22 data entry, 10 read only; 5MB each.

g. Number of records in database: 34,000 in the primary table plus related tables.

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

i. Backup frequency: Daily via agency automated server backup system.

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

23. Enforcement Activity Reporting System (EARS)

a. Database commercial name: Microsoft SQL.

b. List of applications supported: Enforcement Activity Reporting System (see Applications section 3.G.9).

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)
- Mike Keeling – Business Services Program, Information Technology Services Division (data steward)

f. Size of database: 180MB.

g. Number of records in database: 355,000

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):
[X] 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 (new)

a. Database commercial name: Interlocking (Oracle) replicated to WDFW (MS – 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 will be located at vendor facility (Interlocking Software – Poulsbo, WA) replicated database will be located at WDFW.

e. Ownership of database: Intergovernmental Resource Management/Environmental Policy, Erik Neatherlin (Project Manager), Business Services Program – Information Services Division, Brian Fairley (Technical Project Manager)

f. Size of database: In development

g. Number of records in database: In development

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
[X] Available by written request
[ ] Documented request procedure on website (provide URL)
[X] Direct query on website (provide URL) – in progress, planned for Q4 2007.
[X] GIS online mapping (provide URL) – in progress, planned for Q4 2007.

25. Fleet Management (new)

a. Database commercial name: Microsoft SQL.

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 - Office of the Director (business process owner)
- Shawn Brown – Business Services Program, Information Technology Services Division (data steward)
- Tero Consulting, Ltd. (database provider) http://www.teroconsulting.com

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

g. Number of records in database: > 5,000

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

i. Backup frequency: Daily

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

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4. Current Technology Project/Investment Summaries

The table below provides summary information on technology investments active in the first half of FY2008.

Title	Description	Cost Estimate	FTE's	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Business Systems, Fleet Manage-ment	Executive Order 05-01 mandates new fleet management standards. Automate business systems for fleet and equipment management. Retained a vendor, TERO Systems, to provide fleet management as a contracted service.	Spent less than $50K in FY07, for basic configuration and data interfaces. Expect to spend $70K in FY08 to further implement.	Agency support, ~1 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	Ron McQueen Business Services Program Asst. Dir. (360) 902-2204 mcquerjm@ dfw.wa.gov	Ross Fuller Fleet Manager (360) 902-2655 fullerkf@dfw.wa.gov
Business Systems, Hydraulic Project Approval	HPMS application supports management of hydraulic permits. Release 2 completed. Current work on public data access module.	$50K for continued small enhancement	Agency IT support, 2 FTEs	Completed Release 2 05/31/07. Public data access by 1/1/08	Business Services, Habitat Program, public applying for permits.	Healthy, diverse and sustainable fish and wildlife populations	Greg Hueckel, Habitat Program Asst. Dir. (360) 902-2416 hueckgjh@dfw.wa.gov	Brian Fairley Project Manager (360) 902-2199 fairlblf@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 new vendor is Outdoor Central.	The operating and development costs are covered by a transaction fee. Estimated revenue to the system contractor is $1-2M per year.	Est. 3 FTE during FY07. Agency will manage some services internally	Essential services now complete. Completion of remaining deliverables is scheduled by January 2008.	Statewide with public impact.	Implement processes that produce sound and professional decisions	Joe Stohr, Deputy Director (360) 902-2650 stohrjss@dfw.wa.gov Ron McQueen Business Services Program Asst. Dir. (360) 902-2204 mcquerjm@ dfw.wa.gov	Frank Hawley License Manager (360) 902-2453 hawlefjhbjs@ dfw.wa.gov

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 to DIS Exchange service. Replace obsolete servers and network equipment.	$1.38M for the Microsoft migration. $305K for server and equipment replacement.	Agency IT support – 3 FTE	EAD and Exchange project in planning phase. Equipment replacement schedule under development.	IT personnel agency wide, all employees.	Implement processes that produce sound and professional decisions	Joe Stohr Deputy Director (360) 902-2650 stohrjss@dfw.wa.gov	Jim Eby Information Technology Services Division Manager (360) 902-2303 ebyjre@dfw.wa.gov
Business Systems, Habitat Work Schedule (HWS)	HWS will capture and manage data about proposed salmon recovery projects. A diverse set of external stakeholders will use HWS. The vendor is Paladin. This is an outsourced solution.	The estimated cost of the initial development is $360K	Agency support, ~1.5 FTE	Phase 1 expected by Nov 2007. The vendor will host the system.	Multiple agency and external stakeholders	Healthy, diverse and sustainable fish and wildlife populations	Tim Smith, Special Assistant. 902-2223 smithtrs@ dfw.wa.gov	Erik Neatherlin 902-2559 neathean@ dfw.wa.gov
Integrated Project Review and Mitigation Tools (IPRMT)	IPRMT will provide multi-agency tools to integrate the review of projects that need various environmental permits	$200K for business rule integration, no IT funding this year	Agency support, ~1.5FTE	Integrate Business rules for permits, formulate IT strategy this year.	Multiple agency and external stakeholders	Healthy, diverse and sustainable fish and wildlife populations	Greg Hueckel, Habitat Program Asst. Dir. (360) 902-2416 hueckgjh@dfw.wa.gov	Jim Eby Information Technology Services Division Manager (360) 902-2303 ebyjre@dfw.wa.gov

5. Planned Projects/Investments

This table captures the major technology investments identified by WDFW as the top priorities for fiscal years 2008, 2009, and 2010.

Title	Description	Cost Estimate	FTE's	Impact on Existing Investments	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
Business Systems, Fleet Manage-Ment (continued)	Executive Order 05-01 mandates new fleet management standards. The agency will continue to implement system with TERO to provide fleet management as a service.	The fleet management system will cost an estimated $50K per year.	Agency support, ~1 FTE	Potential replacement of existing VMTS	Partially implemented Will continue to expand use in FY08-09.	Agency wide, Executive level reporting and review.	Implement processes that produce sound and professional decisions	Ron McQueen Business Services Program Asst. Dir. (360) 902-2204 mcquerjm@ dfw.wa.gov	Ross Fuller Project Manager (360) 902-2655 fullerkf@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 Outdoor Central.	The operating and development costs are covered by a transaction fee. Estimated revenue earned by the system contractor is $1.5M per year.	IT support ~3 FTES in FY08-09. Agency will manage some services internally	Replaces some existing agency systems with contractor-managed capabilities. Avoids maintenance and upgrade costs.	Completion of a few remaining deliverables is under negotiation. Operational status will include ongoing maintenance and upgrade performed by the vendor.	Statewide with public impact.	Implement processes that produce sound and professional decisions	Joe Stohr, Deputy Director. 902-2650, stohrjss@dfw.wa.gov Ron McQueen Business Services Program Asst. Dir. (360) 902-2204 mcquerjm@ dfw.wa.gov	Frank Hawley License Manager (360) 902-2453 hawlefjhbjs@ dfw.wa.gov

Title	Description	Cost Estimate	FTE's	Impact on Existing Investments	Schedule	Scope	Business Strategy	Executive Sponsor	Project Manager
IT Enabling Project, WDFW Computer Systems Architec-ture	Activities in 08-09 include planning and implementing Active Directory, and Exchange, and replacing obsolete servers and network equipment	Received Legislative funding for FY 08-09 of $1.38M for AD and Exchange. Funding of $302K for equipment replacement.	Agency IT support expect 3.0 FTES	Keeps WDFW architecture and infrastructure in step with state standards	Expect to implement AD in FY08, and Exchange in FY09. Equipment replacement ongoing in FY08-09.	Agency wide, interfaces with state systems	Implement processes that produce sound and professional decisions	Ron McQueen Business Services Program Asst. Dir. (360) 902-2204 mcquerjm@dfw.wa.gov	Jim Eby Information Services Division Manager (360) 902-2303 ebyjre@dfw.wa.gov Angie Ragan 902-2309 sherrams@dfw.wa.gov
Business Systems, LIFT System – Future Direction	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.	The cost estimate and strategy for LIFT replacement are under development. Funding has not been identified.	No net change	Standardizes IT architecture. Replaces obsolete technology. Reduces maintenance costs.	Expect to complete internal scoping discussions in FY08, then select future direction	Business Services, Fish Pgm, and commercial license holders.	Implement processes that produce sound and professional decisions	Ron McQueen Business Services Program Asst. Dir. (360) 902-2204 mcquerjm@dfw.wa.gov	Jim Eby Information Services Division Manager (360) 902-2303 ebyjre@dfw.wa.gov
Business Systems, Habitat Work Schedule (HWS)	HWS will capture and manage data about proposed salmon recovery projects. A diverse set of external stakeholders will use HWS.	The estimated cost of the ongoing project is $450K	Agency support, ~1 FTE	Enhances use of GIS systems.	Phase 1 will be completed in FY08, additional work will begin later in FY09	Multiple agency and external stake-holders	Healthy, diverse and sustainable fish and wildlife populations	Tim Smith, Special Assistant. 902-2223 smithtrs@dfw.wa.gov	Erik Neatherlin 902-2559 neathean@dfw.wa.gov
Integrated Project Review and Mitigation Tools (IPRMT)	IPRMT will provide multi-agency tools to integrate the review of projects that need various environmental permits	$200K for business rule integration, no IT funding this year	Agency support, ~1.5FTE	May require a major change in HPMS, and new data interfaces.	Integrate Business rules for permits, formulate IT strategy.	Multiple agency and external stake-holders	Healthy, diverse and sustainable fish and wildlife populations	Greg Hueckel, Habitat Program Asst. Dir. (360) 902-2416 hueckgjh@dfw.wa.gov	Jim Eby Information Technology Services Division Manager (360) 902-2303 ebyjre@dfw.wa.gov

6. Annual Certification

State of Washington
Department of Fish and Wildlife
Mailing Address: 600 Capitol Way N • Olympia WA 98501-1091 • (360) 902-2200; TDD (360) 902-2207
Main Office Location: Natural Resources Building • 1111 Washington Street SE • Olympia WA

August 22, 2007

Ms. Tracy Guerin, Deputy Director
Management & Oversight of Strategic Technologies
Department of Information Services
Post Office Box 42445
Olympia, Washington 98504-2445

Dear Ms Guerin:

The Washington Department of Fish and Wildlife (WDFW) is submitting its annual Information Technology (IT) policy certification letter regarding Information Services Board (ISB) policy compliance for security, portfolio, disaster recovery, and Geographic Information Systems (GIS).

In the past year, WDFW has maintained and improved all areas of IT policy and security. We have instituted improved security practices to safeguard the state government network; agency representatives continue their participation on the statewide WACIRC e-security committee; and the agency continued to refine its IT architecture strategy for the next two biennia and beyond.

In the area of IT security, WDFW has completed its annual update of the WDFW IT Security Plan. The Plan covers all aspects of IT security and is consistent with ISB IT security requirements. The agency's last IT security audit was on June 16, 2006.

This letter also acknowledges the requirement for continuing to update the WDFW IT Portfolio. A Portfolio update will be completed and submitted for agency approval by September 1, 2007. The Portfolio will be published and the agency data forwarded electronically to DIS via the ePortfolio application by September 15. The Portfolio update includes an update of WDFW GIS information.

In the area of disaster recovery, an IT disaster recovery review and update was completed in 2007. The IT disaster recovery materials are integrated into the complete WDFW Disaster Recovery Plan. This Plan is available for review at WDFW's Safety Office. WDFW did not conduct a disaster recovery exercise in FY07. However, has begun agency staff training consistent with the Federal Emergency Management Agency standards, through the National Incident Management System (NIMS) training resources. Key IT staff members are assigned to take NIMS training.

Tracy Guerin
August 22, 2007
Page 2

In summary, the agency continues to operate on a sound base for IT policy and security planning. WDFW has substantially met all ISB requirements and expects to continue to refine and improve policy and process in the coming year. If you have any questions, please call Jim Eby, Information Technology Services Division Manager, at 902-2303.

Sincerely,

/s/ Jeff P. Koenings, Ph.D.
Director

cc:
Joe Stohr, Deputy Director-Operations
Ron McQueen, Assistant Director, Business Services
Jim Eby, IT Manager
Richard Duchaine, Technology Management Consultant, DIS

Appendix A:

2007-2009 Biennium Strategic Plan Budget Submittal

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 Strategic Plan is also available as a separate download from the WDFW web site: http://wdfw.wa.gov/depinfo/budget/2007-2009_strategic_plan_budget_submittal.htm

Future agency strategic plan updates will be available for viewing at: http://wdfw.wa.gov/depinfo.htm.

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2007 – 2009 BIENNIUM

STRATEGIC PLAN BUDGET SUBMITTAL

September 1, 2006

Washington Department of
FISH and WILDLIFE

The Fish and Wildlife Commission

The Washington Fish and Wildlife Commission oversees the Department of Fish and Wildlife. The Commission consists of nine members 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. They also monitor 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: 03/14/05 - 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: 03/15/05 - 12/31/12

Will Roehl, Lynden
Term of Office: 01/21/03 - 12/31/08

Fred Shiosaki, Spokane
Term of Office: 01/01/05 - 12/31/10

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

Susan Yeager
Executive Assistant

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW)

STRATEGIC PLAN BUDGET SUBMITTAL
2007 – 2009 BIENNIUM
SEPTEMBER 1, 2006

Picture Not Available

Jerry Gutzwiler,
Fish and Wildlife Commission Chair

Jeff Koenings, Ph.D.
Director

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Values Statement

Healthy and diverse fish and wildlife populations

We live in a state that has a large variety of different fish and wildlife populations and their habitats. These resources have been threatened in recent years by significant human population growth. It is vitally important that we continue to find new ways to maintain healthy, naturally occurring fish and wildlife populations within healthy habitats. The Department will strive to maintain healthy, diverse and self-sustaining fish and wildlife populations and their habitats.

The public trust granted to us for resource stewardship

The people of Washington have granted a public trust to the State and the Department of Fish and Wildlife to manage these resources. The Department is committed to maintaining the public trust granted to it for resource stewardship. It will fulfill this trust responsibly through cost effective, professional resource and land management decisions.

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

Science

Science is its most important tool and implementation of it is the Department's focus. The Department will instill confidence in its ability to develop, gather and deliver the best science into the hands of those who affect fish and wildlife with their decisions.

The Department will provide leadership in using the best-applied science as the foundation for policy and management decisions that affect fish and wildlife and their habitats.

The Department is committed to working with people to find solutions that work. It recognizes the importance of integrating good science with constituent values and intergovernmental agreements into WDFW decisions.

Employees

Employees are the Department's greatest assets and the development of future leaders is critical to its success. The Department is committed to provide employees with the training and tools for them to be effective and efficient in their jobs.

Excellent professional service

The Department is committed to achieving high professional standards and providing high quality professional service. Every WDFW employee will provide excellent service to the public as well as internally to WDFW employees. Excellent service includes respectful, professional and timely responses to those requesting service or information.

Citizen assistance in accomplishing the Department's mission

The Department recognizes it cannot be successful alone. The health of Washington's fish and wildlife populations will require strong partnerships, collaborative approaches and effective communication.

A safe, healthy work environment

A safe and healthy working environment is critical for our employees being able to accomplish our mission. The Department is committed to providing a safe and healthy work environment for its employees.

WDFW Authority: 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 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 the 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.

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.

Vision Statement

Make Washington State a world-class outdoor destination by fostering an appreciation of abundant and sustainable fish and wildlife resources and their ongoing contributions to the Northwest quality of life.

Working Toward our Vision

2007 – 2009 Strategic Direction

Washington state citizens rely on the Department of Fish and Wildlife to protect and sustain fish and wildlife resources and support the Northwest way of life that so many of us treasure. We hold this public trust in high esteem and strive to meet the challenges that put our focus on fish and wildlife protection and sustainability to the test. We understand that without abundant populations of fish and wildlife, the quality of life in our region would be seriously compromised.

During the 2007-09 biennium, the Department will work to stabilize the foundation we need to realize our vision and fulfill our mission. We will maintain and build the public assets we are entrusted with and eliminate liabilities that drain our financial resources. We will identify, seek funding and begin to fix ailing facilities and infrastructure that are crucial to our mission. We will focus on developing partnerships with other agencies and organizations, tribes and citizens that make us effective and efficient in our operations. We will educate youth and adults to foster a stewardship ethic toward fish and wildlife. We will seek policy support and stable funding to manage the increased demands being placed on fish and wildlife resources in the State.

The following six goals will support the strategic direction needed to meet our mission.

Goal I – Fish and Wildlife: Achieve healthy, diverse and sustainable fish and wildlife populations and their supporting habitats.

The fish and wildlife goal incorporates applied science with technical assistance, outreach, enforcement and volunteers to ensure that fish and wildlife resources are abundant. Through the use of best available science and technology, employees will work to protect and restore needed habitat and healthy species. We will reach out to maintain and develop volunteer opportunities for citizen stewardship to help fulfill the Fish and Wildlife mission. Our accredited and professional enforcement program will ensure compliance with resource regulations and be a reassuring presence in the communities we serve. Fish and wildlife protection and preservation is at the core of everything we do.

Goal II – Public Benefit: Ensure sustainable fish and wildlife opportunities for social and economic benefit.

Playing in the outdoors is the way of life in the Northwest. Department employees work daily to develop new and maintain existing recreational opportunities for Washington citizens and visitors. Department of Fish and Wildlife employees know their work because they live their work. They have the skills and abilities to protect the resource and the spirit to use and enjoy it. These attributes are the backbone of the Fish and Wildlife workforce. They are the foundation for providing public opportunity. During the 2007-09 biennium, we will inventory existing access sites to request resources for upgrades and new opportunities for fishing and watchable wildlife viewing. We will seek policy and funding support from the Governor and Legislature for incentives that provide access to private lands to increase hunting opportunity. We will improve the economic health of local communities by designing and marketing fish and wildlife opportunities such as lowland lake and salmon fishing, clam digging and wildlife viewing.

Goal III – Funding: Ensure effective use of current and future financial resources in order to meet the needs of the states fish and wildlife resource for the benefit of the public.

A stable funding source for agency operations is crucial to meeting our mission. The agency relies on the Wildlife account for 20% of operating costs. The Wildlife account is unstable because it depends on fishing and hunting license sales. As times change and resource abundance – and opportunity - is threatened by loss of habitat, Fish and Wildlife must find a more reliable source of funding to sustain abundant populations. Thorough research into how other states fund sustainable resource management could result in new recommendations for future funding consideration. The agency will need a committed constituent base to help with this challenge.

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

Our skilled and dedicated workforce provides resource management opportunities unmatched in State government. Federal, local and other state agencies receive technical support from Department technical staff on a regular basis. Citizens rely on our expert staff for important permitting and project technical assistance and decisions. Employees love the work they do and take pride in managing the fish and wildlife resource.

The struggle to manage fish and wildlife resources competently has never been more apparent as funding sources are decreasing and workload is increasing. To address these complexities, we are re-building the agency foundation through strategic planning, priority setting and performance accountability. We will develop operation and maintenance standards that set expectations for completed staff work and cross-program leadership. And we will use technology to provide better customer service and diverse opportunities for the public to enjoy the fish and wildlife resource.

The agency workforce is walking the road to retirement in large numbers. In order to maintain consistency in the competence of our workforce, we will focus on recruiting new employees who are inspired by our resource management direction. We will provide focused training and career building opportunities that create the next generation of agency leaders and build the skills of our senior employees. And, we will hold all employees to the highest standards of performance and accountability.

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

The Department uses science on a daily basis to manage fish and wildlife resources. We use research and apply credible scientific principles and actions to help others make important resource management decisions. The science we strive to employ is based on the principle of biodiversity – that is managing for diverse species common to and within one geographic area. Over the next few years we will be developing a Wildlife Action Plan that will use biodiversity science to maximize benefits for species living on wildlife area lands. In addition, at the local watershed level, we will be using a model developed by staff to integrate habitat, harvest, hatchery and hydropower, the 4 "H's," to help recover our Northwest icon…the salmon. This action alone, implemented at the watershed level, is a powerful tool to use to sustain the salmon resource.

Goal VI – Employees: Create an agency 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 agency.

As stated earlier, Department of Fish and Wildlife employees know their work because they live their work. They have the skills and abilities to protect the resource and the spirit to use and enjoy it. These attributes are the backbone of the Fish and Wildlife workforce. The Department of Fish and Wildlife employees are also reaching retirement age in record numbers, a trend that is creating change. The Department will manage this change by including strategic activities and performance measures each employee's work plan. Individual work plans will be directly aligned with the agency's strategic plan. Communications between Department headquarters in Olympia and the Regional offices will increase as all programs reach out to their field staff on a more frequent basis. Wellness programs have been developed and will be continually offered to all staff to help establish positive personal habits and a healthy home/work lifestyle balance. Training programs on the benefits of participating in a performance-based workplace will be developed.

Governor Gregoire's Priority

Ensure a Sustainable Environmental Strategy

WDFW will continually reflect on the Governor's priorities and play a large part in helping develop a sustainable environmental strategy for the State of Washington.

Here is Governor Gregoire's direction:

First, Washington must have a sustainable environmental strategy...We must integrate economic vitality and environmental integrity into a new kind of prosperity - one that enriches today, without impoverishing tomorrow. Our environmental excellence will be the foundation of our economic success.

Second, Washington must improve its air, water and land management practices…we must bring certainty and clarity to water management - our hydropower, agriculture, and cities, and our fish and wildlife, all depend on clean and plentiful water. And the unique values of our forests, including our remnant old growth forests, must be protected.

And third, Washington must improve its environmental regulation process. This does not mean relaxing environmental standards. Instead, the state must address the overwhelming complexity of paperwork that confronts our businesses, farmers, and citizens, complexity that can result in costly delays and frustration.

Governor's Environmental Principles:

- Preserving Washington's environment and natural beauty is both central to our quality of life and essential to the strength of our economy.
- Sound science is the cornerstone for good environmental policy and practices.
- Our fish and wildlife resources require sufficient habitat, and sustainable harvest levels to survive. Healthy watershed and marine systems will prevent future listings of endangered species.
- The people of Washington have a fundamental right to clean air and clean water.
- Washington must have fair and effective enforcement of its environmental laws to ensure a level playing field for those who play by the rules.
- The people of Washington deserve real results and measurable progress in preserving the health of our natural resources.

Priorities of Government Strategies (POG)

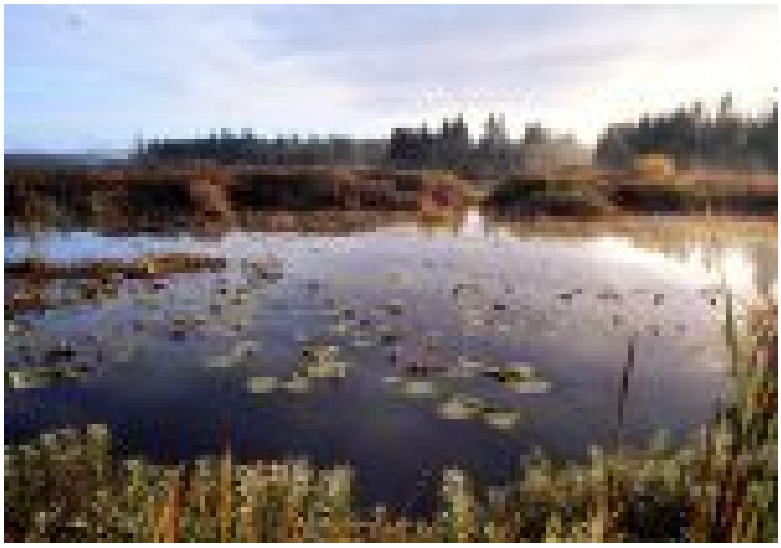
Safeguards and Standards: Human activity has a significant impact on the state's natural resources. This strategy establishes standards to prevent harm to the state's natural resources caused by human actions.

Preserve, Maintain and Restore Natural Systems and Landscapes: Although significant effort is made to prevent new damage to natural systems, historic uses have resulted in ongoing harm to the environment. This strategy works to maintain and restore the state's natural systems and the ecosystem services they provide to society.

Sustainable Use of Public Resources: Citizens and businesses enjoy economic benefit from the use of public natural resources. This strategy attempts to realize economic and social benefits from the sustainable use of public natural resources.

Change Individual Practices and Choices: The choices and actions of individuals have a significant impact on the health of the state's environment. This strategy attempts to influence the public's knowledge and understanding of their impacts on the state's natural resources.

Obtain Data on which to Make Better Decisions: Good natural resource management is dependent upon sound science and high-quality monitoring data. Monitoring data influences decisions made in all other major strategies. Good data can help identify problem areas, and target the most effective responses. Monitoring can also help determine the effectiveness of our other strategies.



Governor Gregoire's Puget Sound Partnership

The Washington Department of Fish and Wildlife plays a central role in Governor Gregoire's Puget Sound Partnership, which focuses on water quality, water quantity, habitat and "species in decline." The Department's role includes identifying priority actions and activities related to marine, nearshore, estuarine, and freshwater habitat. This accompanies work already mentioned in providing assistance to local watershed groups working on Puget Sound and Hood Canal salmon recovery efforts. The Puget Sound Partnership has provided funding for WDFW activities related to estuary restoration projects and the Puget Sound Nearshore Ecosystem Restoration feasibility study currently under development with the U.S. Army Corps of Engineers.

Puget Sound Nearshore Partnership:

WDFW co-chairs the Puget Sound Nearshore Partnership with the US Army Corps of Engineers. The Nearshore Partnership, comprised of seven federal agencies, seven state agencies, tribes, local governments, and non-government organizations, is working to complete the Puget Sound Nearshore Ecosystem Restoration Project General Investigation; identify and implement "early action" nearshore restoration projects under the state's Estuary and Salmon Restoration Program and several federal programs, including the Puget Sound and Adjacent Waters construction program in the Corps of Engineers. The Partnership is also working to ensure coordination and communication among agencies and programs working to protect and restore the Puget Sound nearshore ecosystem.

Washington Department of Fish and Wildlife
Goals, Objectives, Activities, Strategies and Performance Measures
2007 - 2009 Biennium

Goal I: Fish and Wildlife

Achieve healthy, diverse and sustainable fish and wildlife populations and their supporting habitats.

Objective 1: Complete the Puget Sound Nearshore Feasibility Study by September 2008.

Activity: Conduct Habitat Management and Enhancement

Strategy: Identify priority protection projects and restoration actions.

Performance Measure:

- Completed list of priority nearshore protection projects and restoration actions provided to the US Army Corps of Engineers and Congress.

Objective 2: Develop and implement habitat-monitoring program for Primary Salmon Populations by June 30, 2009.

Activity: Conduct Surveys of Fish, Wildlife and Habitat

Strategy: Include data in the "State of the Salmon Report" and provide stakeholders with information on progress towards salmon recovery and restoring watershed health.

Performance Measure:

- Percentage of habitat monitoring program for Primary Salmon Populations completed.

Objective 3: Beginning July 1, 2007, and annually thereafter, provide data requirements for evaluating ESA-listed salmon recovery goals and watershed health in key selected sites.

Activity: Conduct Surveys of Fish, Wildlife and Habitat

Strategy: Annually estimate the abundance and productivity of ESA-listed salmon populations (smolts and adults) in key selected sites.

Performance Measures:

- Percentage of salmon populations (smolts and adults) in key selected sites meeting recovery goals.
- Percentage of ESA-listed salmon and steelhead major population groups monitored to assess the ESA de-listing criteria: abundance and productivity.
- Number of Salmon Recovery Boards that are provided with abundance and productivity data.
- Percentage of listed wild salmon and steelhead stocks showing increased returns of spawning fish in Washington rivers. (Base Ave. 1994 to 1998)

Objective 4: By 2009, ensure 100% ballast water compliance by increasing vessel inspections on vessels entering Washington waters.

Activity: Ensure Compliance with Fish and Wildlife Regulations

Strategy: Increase the vessel inspections for ballast water compliance from 10% to 100%.

Performance Measure:

- Percentage of qualifying vessels entering Washington waters inspected for ballast water compliance.

Objective 5: By June 2009, develop a co-management-based comprehensive Puget Sound Steelhead Management Plan and begin implementation of the plan.

Activity: Coordinate Tribal Fish and Wildlife Management

Strategy: Address specific listing factor gaps and implement harvest and hatchery reform practices.

Performance Measure:

- Percentage of the co-management-based comprehensive Puget Sound Steelhead Management Plan completed.

Objective 6: Annually sample 100% of sick and dead deer and elk reported by the public and examined at Wildlife check stations, that meet scientifically established criteria for having the highest likelihood of being infected with CWD (chronic wasting disease).

Activity: Protect Human, Fish and Wildlife Health

Strategy: Work with volunteers to maintain wildlife check stations.

Performance Measure:

- Number of deer and elk samples collected that are screened for chronic wasting disease.

Objective 7: Provide assistance in the proper siting and implementation of 15 wind power energy projects by June 30, 2009.

Activity: Provide Technical Assistance

Strategy: Work with developers of 15 projects and revise the WDFW Wind Power Guidelines through seven public meetings with a committee of approximately 20 specifically identified stakeholders.

Performance Measure:

- Number of wind power projects properly sited

Objective 8: Help Implement the Governor's initiative on salmon recovery by June 30, 2009.

Activity: Develop Habitat Conservation and Species Management and Recovery Plans

Strategy: Identify WDFW commitments including 4 "H" integration needs in six Regional Recovery Plans.

Performance Measures:

- Number of WDFW work plans completed.
- Number of watersheds, with independent Chinook salmon spawning populations, that have completed "All-H" integration plans.

Strategy: Develop a tracking verification and accountability system.

Performance Measure:

- Percentage of the tracking and accountability system completed.

Strategy: Implement Hatchery reform.

Performance Measure:

- Number of hatchery reform actions completed.

Objective 9: Initiate monitoring and evaluation of biodiversity for all owned and controlled lands by June 30, 2009.

Activity: Conduct Research of Fish, Wildlife, and Habitat

Strategy: Develop a biodiversity index and implementation process.

Performance Measure:

- Acres of all owned and controlled lands monitored and evaluated for biodiversity.

Objective 10: Provide instream flow science, data, and technical assistance to watershed planning units and to the Federal Energy Regulatory Commission (FERC) for relicensing of one hydroelectric project by June 30, 2009.

Activity: Provide Technical Assistance

Strategy: Continually work with watershed planning units and FERC to develop and implement the scientific basis for determining how much water fish need in specific areas.

Performance Measures:

- Number of watershed planning units that received instream flow science, data, and technical assistance.
- Number of hydroelectric projects receiving technical assistance for relicensing.

Objective 11: Implement WDFW's obligations under the Forests and Fish rule by June 30, 2009.

Activity: Provide Technical Assistance

Strategy: Acquire funding to continue technical work and alternate plan review for Forest and Fish Agreement obligations.

Performance Measures:

- Percentage of alternate plans reviewed and comments provided.
- Percentage of large landowner road maintenance and abandonment plans reviewed and comments provided.

Objective 12: Annually sample 100% of sick and dead wild birds that meet scientifically established criteria for having the highest likelihood of being infected with avian influenza or West Nile virus.

Activity: Protect Human, Fish and Wildlife Health

Strategy: Maintain sampling program and respond to public calls immediately.

Performance Measure:

- Number of wild birds collected that are screened for avian influenza or West Nile virus.

Objective 13: By 2009, reduce the introduction of aquatic invasive species into Washington waters.

Activity: Ensure Compliance with Fish and Wildlife Regulations

Strategy: Increase inspections of watercraft from 0 to 1,500 per year.

Performance Measure:

- Number of inspections of watercraft for aquatic invasive species.

Objective 14: Continue current grazing pilot project and establish three new pilot grazing projects by June 30, 2009.

Activity: Conduct Habitat Management and Enhancement

Strategy: Establish three new pilot grazing projects.

Performance Measure:

- Number of pilot grazing projects established.

Objective 15: Contribute to salmon recovery by performing statutorily required fishway maintenance through June 30, 2009.

Activity: Conduct Habitat Management and Enhancement

Strategy: Provide fish passage at 52 WDFW-owned fishways.

Performance Measure:

- Number of fishways opened for fish passage.

Objective 16: Begin specific implementation of key activities identified in the Watchable Wildlife Strategy and in the Endangered Species Recovery and Game Management Plans by June 30, 2009.

Activity: Develop Habitat Conservation and Species Management and Recovery Plans

Strategy: Define key activities for implementation in the Watchable Wildlife Strategy and the Endangered Species Recovery and Game Management Plans.

Performance Measure:

- Number of key activities in the Watchable Wildlife Strategy and in the Endangered Species Recovery and Game Management implemented.

Objective 17: Strengthen assessments and regional management of coastal rockfish stocks and produce annual Puget Sound oceanographic sub-basin surveys by June 2009.

Activity: Conduct Research of Fish, Wildlife, and Habitat

Strategy: Conduct research of coastal rockfish stocks and implement newly developed assessment techniques to monitor rockfish recovery and determine population trends.

Performance Measure:

- Number of oceanographic sub-basin surveys completed using newly developed survey techniques.

Objective 18: Implement a joint fisheries patrol and uniform fishery rules to ensure single and easily understandable fishing regulations by June 30, 2008.

Activity: Ensure Compliance with Fish and Wildlife Regulations

Strategy: Conduct a minimum of six joint fishery patrols and field compliance monitoring activities, hold semi-annual manager-to-manager meetings and implement a minimum of two fisheries enhancement projects.

Performance Measure:

- Number of joint fisheries patrols developed.

Objective 19: Restore habitat functions for fish and wildlife in post-fire areas by June 30, 2009.

Activity: Conduct Habitat Management and Enhancement

Strategy: Revegetate 2,500 acres of post-fire habitat.

Performance Measure:

- Number of acres of post-fire habitat revegetated.

Objective 20: Maintain elk populations through the winter and reduce elk damage to private lands on or by June 2009.

Activity: Conduct Fish and Wildlife Production Activities

Strategy: Manage annual winter-feeding program for elk to reach 1,100 tons.

Performance Measure:

- Number of tons of feed per year.

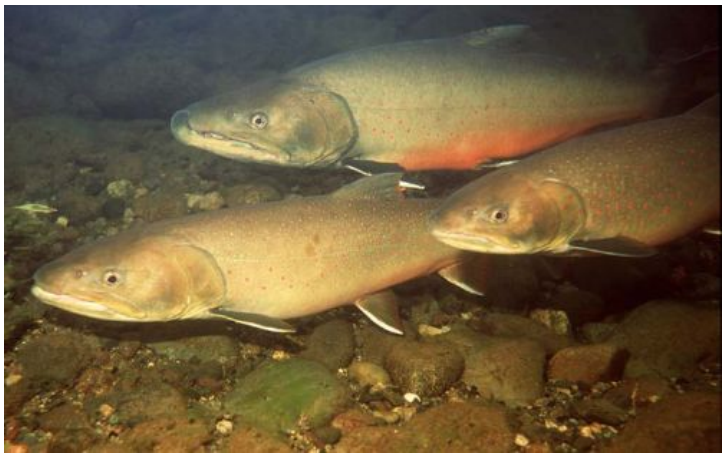
Objective 21: Protect wild Chinook in the Puget Sound (Marine Areas 5-13) by June 30, 2009.

Activity: Develop Habitat Conservation and Species Management and Recovery Plans

Strategy: Increase selective fishery methods.

Performance Measures:

- Wild Chinook recreational harvest rates in Puget Sound.
- Number of additional selective fishery methods that reduced harvest of wild Chinook.



Goal II: Public Benefit

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

Objective 22: Increase the private properties available for public hunting/viewing access by 30 landowners by June 30, 2009.

Activity: Manage Land and Access

Strategy: Develop cooperative agreements with landowners

Performance Measure:

- Number of acres (in thousands) made available for hunting, by WDFW agreements with private landowners.

Objective 23: Add three new American with Disability Act (ADA) access areas sited by June 30, 2009.

Activity: Manage Land and Access

Strategy: Work with ADA advisory group to determine sites.

Performance Measure:

- Number of new Americans with Disabilities access areas sited.

Objective 24: By 2009, design and renovate three hatchery facilities to meet 100% of the instream flow standards and fish passage compliance.

Activity: Conduct Fish and Wildlife Production Activities

Strategy: Renovation hatchery water intake and delivery systems.

Performance Measure:

- Number of hatchery facilities renovated to meet instream flow standards
- Number of hatcheries that modified fish trap and intake screen system replacements to assure fish passage compliance.

Objective 25: Increase fish passage by opening 600 new stream miles by June 30, 2009.

Activity: Conduct Habitat Management and Enhancement

Strategy: Remove man-made fish passage barriers statewide.

Performance Measure:

- Number of new miles of streams opened annually.

Objective 26: Eliminate 60% of the sea lion-caused mortality to salmonids as measured at the Bonneville Dam and establish a baseline sea lion predation rate on brood stock white sturgeon by June 30, 2009.

Activity: Protect Fish, Wildlife, and Habitat

Strategy: Expand hazing operations. Initiate sea lion capture and radio-tagging efforts. Initiate predation monitoring and analysis efforts for white sturgeon.

Performance Measure:

- Percentage of sea lion-caused mortalities eliminated.
- Number of sea lions captured and tagged.

Objective 27: Provide for public safety and conservation by increasing compliance with fish and wildlife laws from 85% to 90% by June 30, 2009.

Activity: Ensure Compliance with Fish and Wildlife Regulations

Strategy: Increase LEOFF employer contributions to allow re-hiring of two officers.

Performance Measure:

- Percentage of enforcement contacts in compliance with state statutes and regulations.

Objective 28: Implement five Wildlife Lands Stewardship actions by June 30, 2009.

Activity: Manage Land and Access

Strategy: On WDFW land, implement two forest habitat enhancement projects and two-agriculture restoration or cooperative farming projects and a new noxious weed control strategy.

Performance Measures:

- Number of agricultural restoration or cooperative farming projects accomplished.
- Acres (in thousands) of WDFW land where noxious weeds are controlled.

Objective 29: Assist communities in the production and/or completion of ten wildlife-viewing projects or festivals by June 30, 2009.

Activity: Manage Watchable Fish and Wildlife Recreation

Strategy: Implement the 2004 Strategic Plan for Wildlife viewing in Washington.

Performance Measure:

- Number of viewing projects WDFW develops or participates in.

Objective 30: Improve the condition of existing hatchery facilities by reducing the maintenance backlog by a minimum of 10% by 2009.

Activity: Conduct Fish and Wildlife Production Activities

Strategy: Prioritize backlog and select projects to be completed.

Performance Measure:

- Percentage of maintenance backlog projects completed.

Objective 31: Increase fishing opportunities by increasing access to hatchery fish by June 30, 2009.

Activity: Manage Fish and Wildlife Harvest

Strategy: Mass mark all appropriate hatchery production in Hood Canal and the Washington coast to increase access to current hatchery fish.

Performance Measures:

- Number of additional fall Chinook externally marked on the Washington coast.
- Number of additional fall Chinook externally marked at the George Adams Hatchery.

Strategy: Implement broodstock management practices for Chinook and coho in the Snohomish Basin (Wallace River Hatchery) and Green River Basin (Soos Creek Hatchery).

Performance Measures:

- Percentage of collected wild Chinook and coho broodstock compared to the total fish spawned in the Snohomish Basin at Wallace River Hatchery.
- Percentage of collected wild Chinook and coho broodstock compared to the total fish spawned in the Green River Basin at Soos Creek Hatchery.

Strategy: Maintain current hatchery production levels at 180.9 million fish released annually (21.5 million trout and 159.4 million salmon) to provide fishery opportunities.

Performance Measures:

- Number of salmon and steelhead smolt (in millions) released annually.
- Percentage of hatchery programs in compliance with the Future Brood document.
- Percentage of hatchery fish stocks monitored for pathogens.
- Number of trout (in millions) planted in state waters annually.
- Percentage of hatchery programs operated in a manner consistent with federal ESA requirements.

Strategy: Maintain current hatchery production levels for Kokanee at 12 million fish released annually to provide fishery opportunities.

Performance Measure:

- Number of Kokanee released.

Strategy: Implement and enforce recreational fishery plan.

Performance Measure:

- Number of selective fisheries implemented

Goal III: Funding

Ensure effective use of financial resources in order to meet the needs of the states fish and wildlife resource for the benefit of the public.

Objective 32: Ensure that the 104 Wildlife Fund reaches 100% of the ongoing cash reserve target by June 30, 2009.

Activity: Manage and Support Core Agency Functions

Strategy: Track the 104 Wildlife Fund cash balance monthly and report to the Executive Management Team.

Performance Measures:

- Number of total participation days (in millions) for hunting and fishing per year.
- Dollars (in millions) of hunting and fishing license revenue per year.
- Dollars (in millions) of total economic activity generated from fish and wildlife-related activities per year.
- Monthly Wildlife Fund cash balance.

Goal IV: Competence

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

Objective 33: Decrease the number of verified complaints of bear and cougar to nine per 100,000 citizens by 2009.

Activity: Manage Human and Wildlife Conflicts

Strategy: Conduct community outreach and work with media to educate the public.

Performance Measure:

- Number of verified complaints for bear and cougar per 100,000 citizens.

Objective 34: Increase officer field time and efficiency by June 30, 2008.

Activity: Manage and Support Core Agency Functions

Strategy: Hire the equivalent of three civilian evidence custodians.

Performance Measure:

- Officer time hours spent on property/evidence management.

Objective 35: Build 100% strategic planning, performance management, and accountability standards, as required by state law, by June 30, 2009.

Activity: Manage and Support Core Agency Functions

Strategy: Form an agency strategy team, led by the performance improvement and accountability director, to develop and implement quality standards for WDFW.

Performance Measure:

- Number of quality measures developed and implemented.

Objective 36: Renew WDFW's technology assets by June 30, 2009.

Activity: Information Systems Maintenance and Development

Strategy: Replace desktop computers every 42-months.

Performance Measure:

- Percentage of computers that meet WDFW's 42-month replacement schedule.

Strategy: Replace 30% of our aging network technology.

Performance Measure:

- Percentage of network hardware replaced.

Objective 37: Complete the Phase 1 migration of WDFW information technology infrastructure to a base that is consistent with the rest of state government by June 30, 2009.

Activity: Information Systems Maintenance and Development

Strategy: Complete migration to Enterprise Active Directory (EAD) user identity and authentication standard and to the state enterprise exchange e-mail system.

Performance Measures:

- Percentage of implementation of Exchange E-mail system.
- Percentage of completion of migration to EAD.

Objective 38: Improve customer service satisfaction levels by June 30, 2009.

Activity: Provide External Customer Service

Strategy: Initiate a baseline customer satisfaction survey, landowners complaining of elk and/or deer damage.

Performance Measure:

- Percentage of customer satisfaction survey responses received from landowners complaining of deer and elk damage.

Strategy: Maintain the high rating on the HPA customer satisfaction survey.

Performance Measure:

- Rating on the customer satisfaction survey (1= Poor 5=Excellent) for Hydraulic Project Approvals.

Objective 39: Implement 10% of the WDFW long-range (year 2050) sustainability goals by June 30, 2009.

Activity: Manage and Support Core Agency Functions

Strategy: Monitor and evaluate progress on sustainability plan.

Performance Measure:

- Number of miles (in millions) driven by employees in WDFW and personal vehicles per quarter.
- Number of gallons of gasoline (in thousands) purchased per quarter.
- Number of gallons of diesel (in thousands) purchased per quarter.
- Number of reams of paper purchased by WDFW per quarter.
- Average miles per gallon by WDFW vehicles per quarter.
- Number BTUs purchased by quarter.
- Percentage of gallons purchased as biodiesel.

Objective 40: Improve the management and performance of WDFW capital projects and facilities by June 30, 2009.

Activity: Manage WDFW Facilities

Strategy: Implement a new Asset management system to assist in facilities management.

Performance Measure:

- Condition of WDFW facilities as measured by the OFM facility condition index (1=poor 5=excellent).
- Percentage of Facilities in new asset management program.

Goal V: Science

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

Objective 41: Implement the Mid-Columbia Habitat Conservation Plan for salmon recovery by June 30, 2009.

Activity: Provide Technical Assistance

Strategy: Develop and implement at least two multi-agency monitoring and evaluation plans for salmon recovery.

Performance Measure:

- Number of monitoring and evaluation plans completed.

Goal VI: Employee Goal

Create an agency 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 agency.

Objective 42: Increase agency's value and understanding of performance management and accountability methods and results by June 20, 2009.

Activity: Manage and Support Core Agency Functions

Strategy: Fully develop and implement an office of performance improvement and accountability.

Performance Measure:

- Number of systems developed to monitor and evaluate agency performance from high-level goal to individual work plans.

Objective 43: Fully implement the agency wellness program and expand it to the regions by June 20, 2009.

Activity: Manage and Support Core Agency Functions

Strategy: Provide eight brown-bag lunch presentations in the NRB and two in each region.

Performance Measure:

- Number of agency-wide brown bag presentations made available.

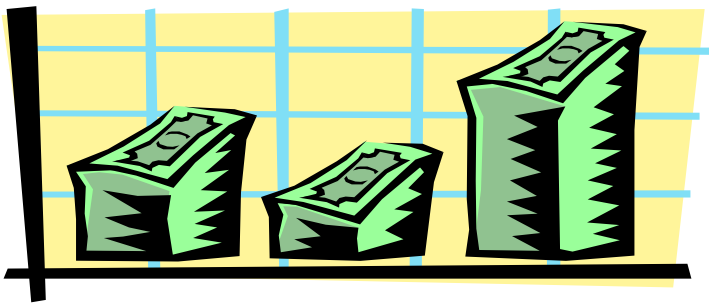
Objective 44: Promote and enhance internal communications on business practices and other issues between programs and regions at least twice a year.

Activity: Manage and Support Core Agency Functions

Strategy: Program Assistant Directors, Deputy Assistant Directors and Regional Directors will hold pre-planned meetings with staff in the regions.

Performance Measure:

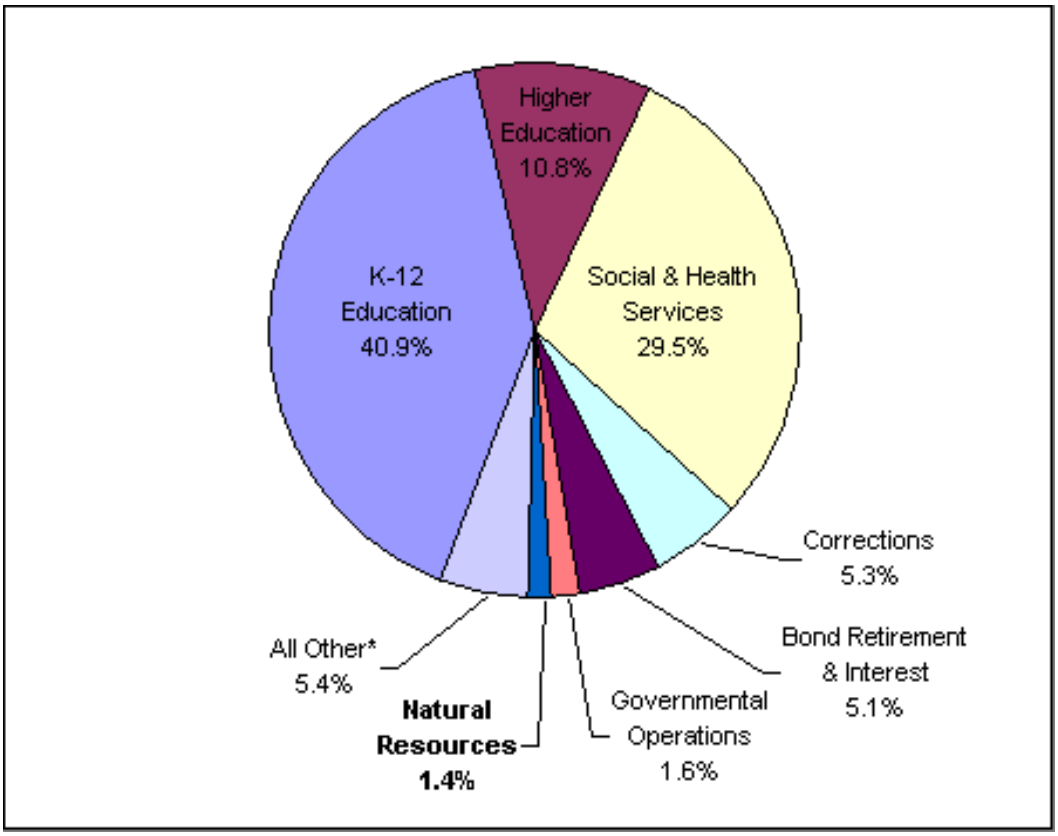
- Number of pre-planned meetings held with staff in the regions statewide.



Assessment of internal capacity and financial health

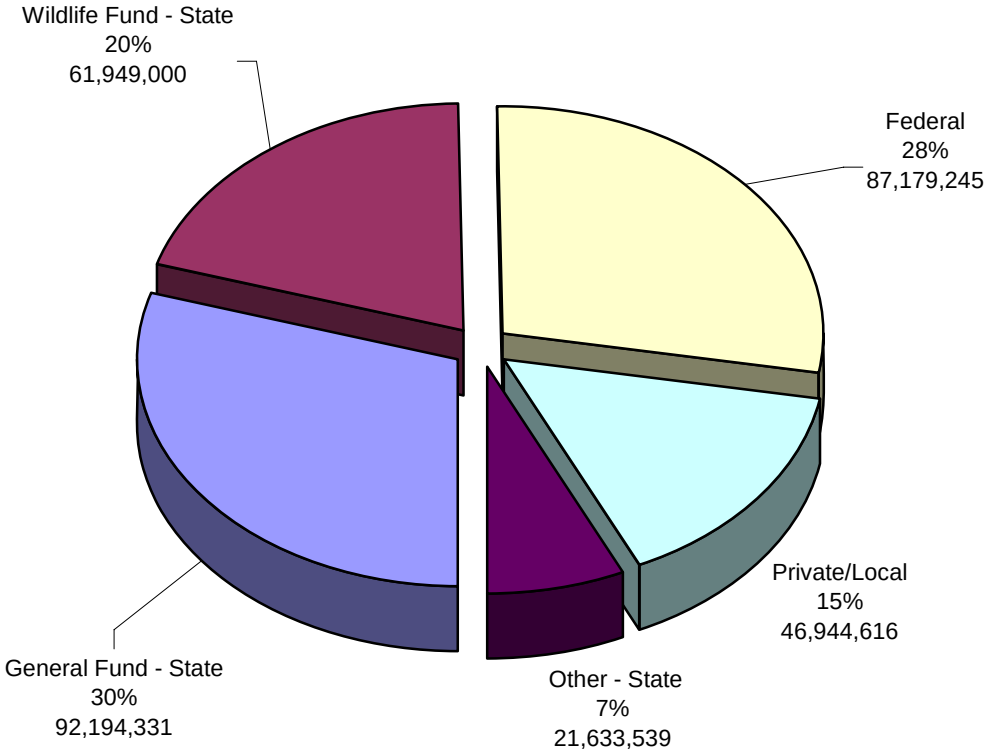
The financial health of WDFW can be considered in relationship to two other factors: the total state budget and what the budget is expected to fund. Financial capacity also has some context and relationship to what portion of the total state budget is dedicated to natural resource agencies that include Department of Natural Resources, State Parks and Recreation, Department of Ecology, Department of Agriculture, Interagency Committee for Outdoor Recreation, and Washington Department of Fish and Wildlife. The natural resource category within the total state budget only represents 1.4% of which WDFW is a part.

Distribution of 05-07 General Fund - State Expenditures Including 2006 Proposed Supplemental General Fund - State: Operating

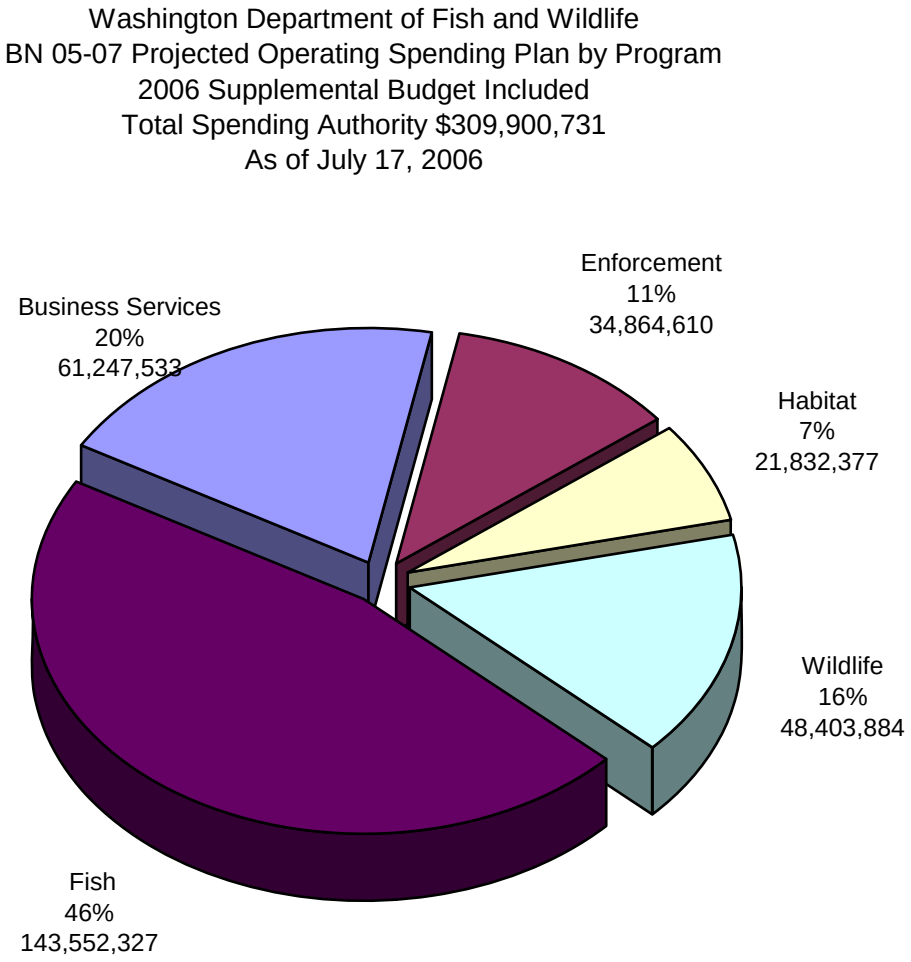


The budget for WDFW is made up of five major categories:
1) General Fund-State; 2) Wildlife Fund-State; 3) Federal; 4) Private/Local; and 5) Other-State.

Washington Department of Fish and Wildlife
BN 05-07 Projected Operating Spending Plan by Funding Source
2006 Supplemental Budget Included
Total Spending Authority $309,900,731
As of July 17, 2006



To depict how the funds are allotted to what program, the following chart shows the distribution of funds by program.



WDFW has 34 funds to manage. Federal, state general fund, local, and private funds are normally provided for specific purposes that are appropriated and subject to audit. There is some flexibility for general funds if they are not provisoed. The Wildlife Account funds have the most flexibility. OFM and the Legislature are currently working with the agency to define appropriate uses for the Wildlife Fund. Most funds including capital appropriations are like a checkbook where a specific amount of cash is provided and it is spent until it is gone. Since 70.6% of WDFW's funding is dependent on federal, private and local grants, and license sales, there is not a dependable revenue stream.

The Wildlife Fund is especially difficult to manage due to its volatility. Fund revenue is totally based upon license sales that are subject to the weather, habitat conditions, and numerous other factors. A bad fishing year for example can be devastating to agency operations.

Figure 1 depicts the revenue stream for the Wildlife Account:

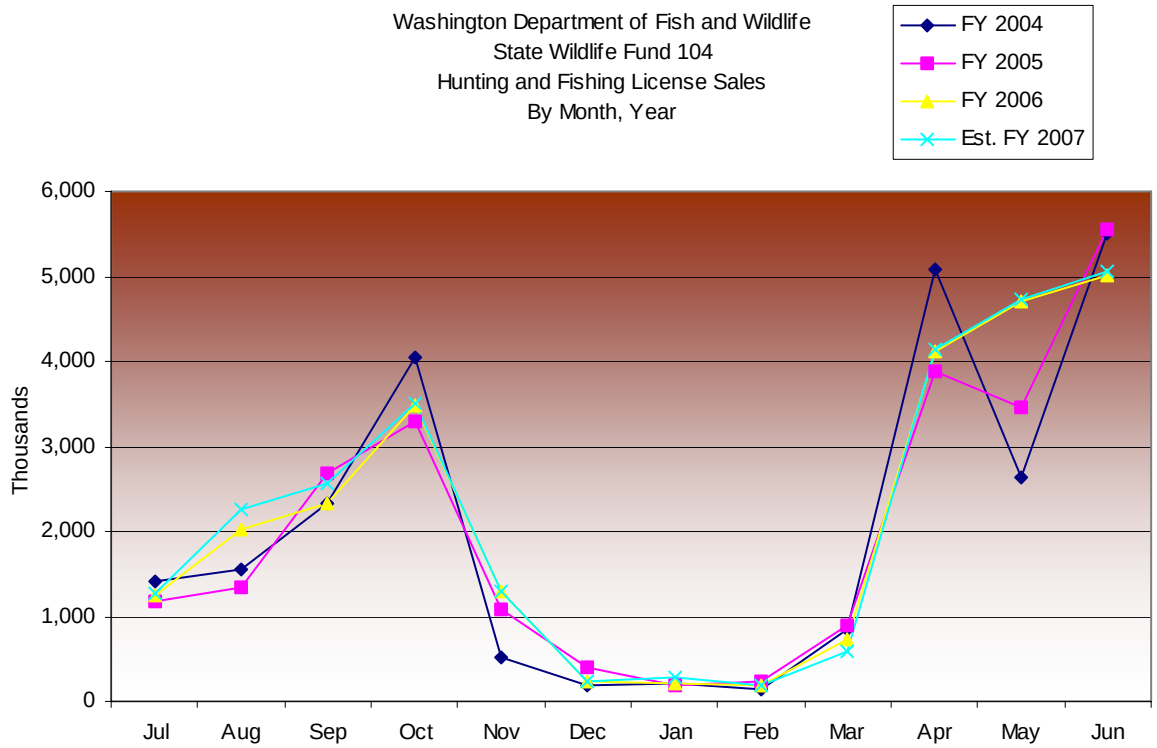


Figure 1

As shown, a majority of the revenue for the fund comes in April, May, and June of each fiscal year. Because of this, the agency spends in excess of its revenue for most of the fiscal year hoping typical revenue is collected in the last three months. If the revenue does not come in, there is no time to recover at the end of the fiscal year and/or at the end of the biennium. The Wildlife fund has to be considered a high-risk operation due to the significance of this timing issue.

Over the years as state general funds have become scarce, a larger reliance on the Wildlife Fund has occurred. As a result, a once significant cash fund balance in FY03 has been exhausted and the fund is moving toward a negative status.

Figure 2 provides a historical picture of the Wildlife Fund cash balance at the end of each fiscal year:

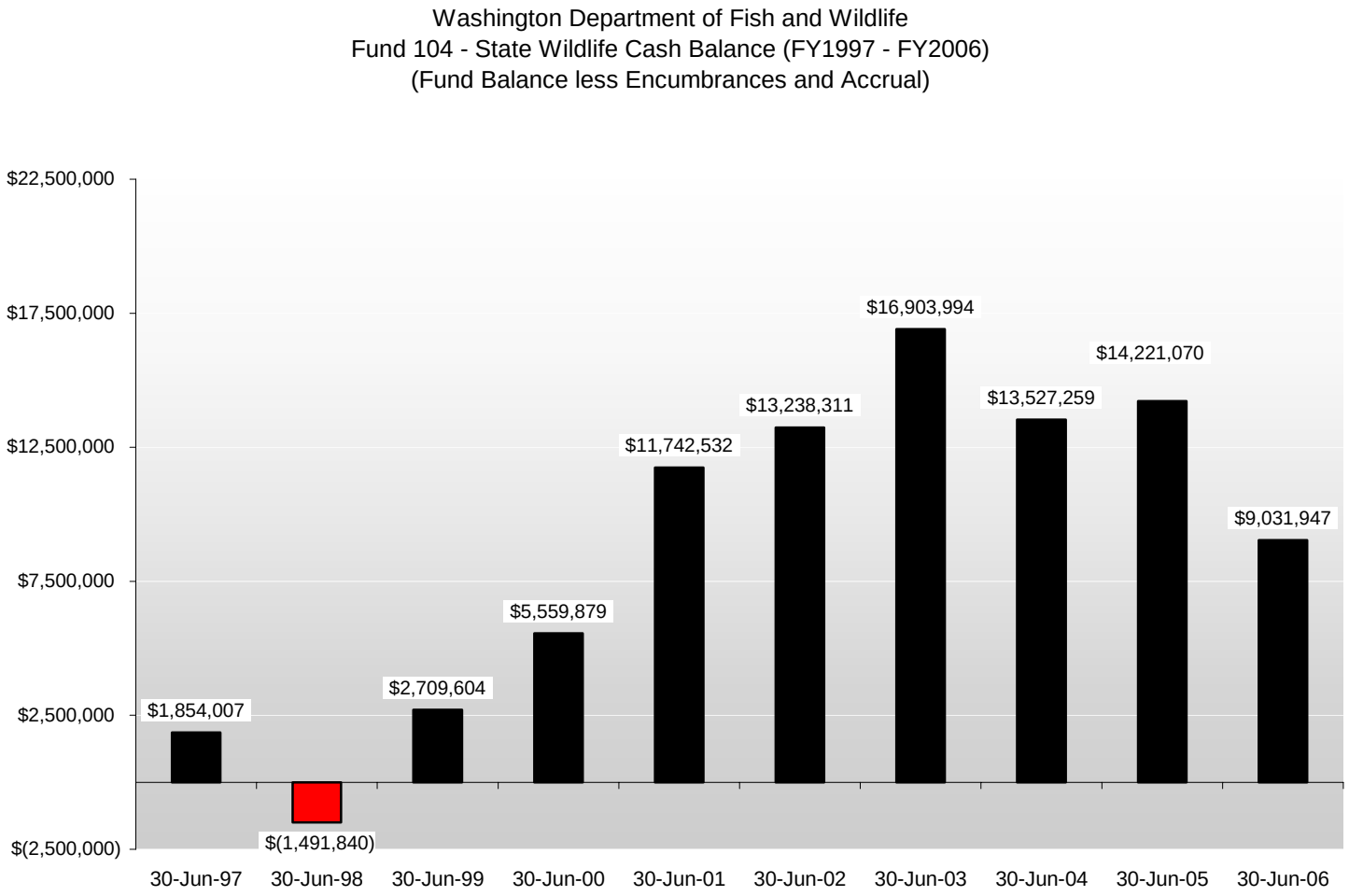


Figure 2

The reduction of cash in the fund was based upon a plan to spend down the cash on hand in FY03 rather than raise license fees or seek other fund sources.

Figure 3 shows the result:

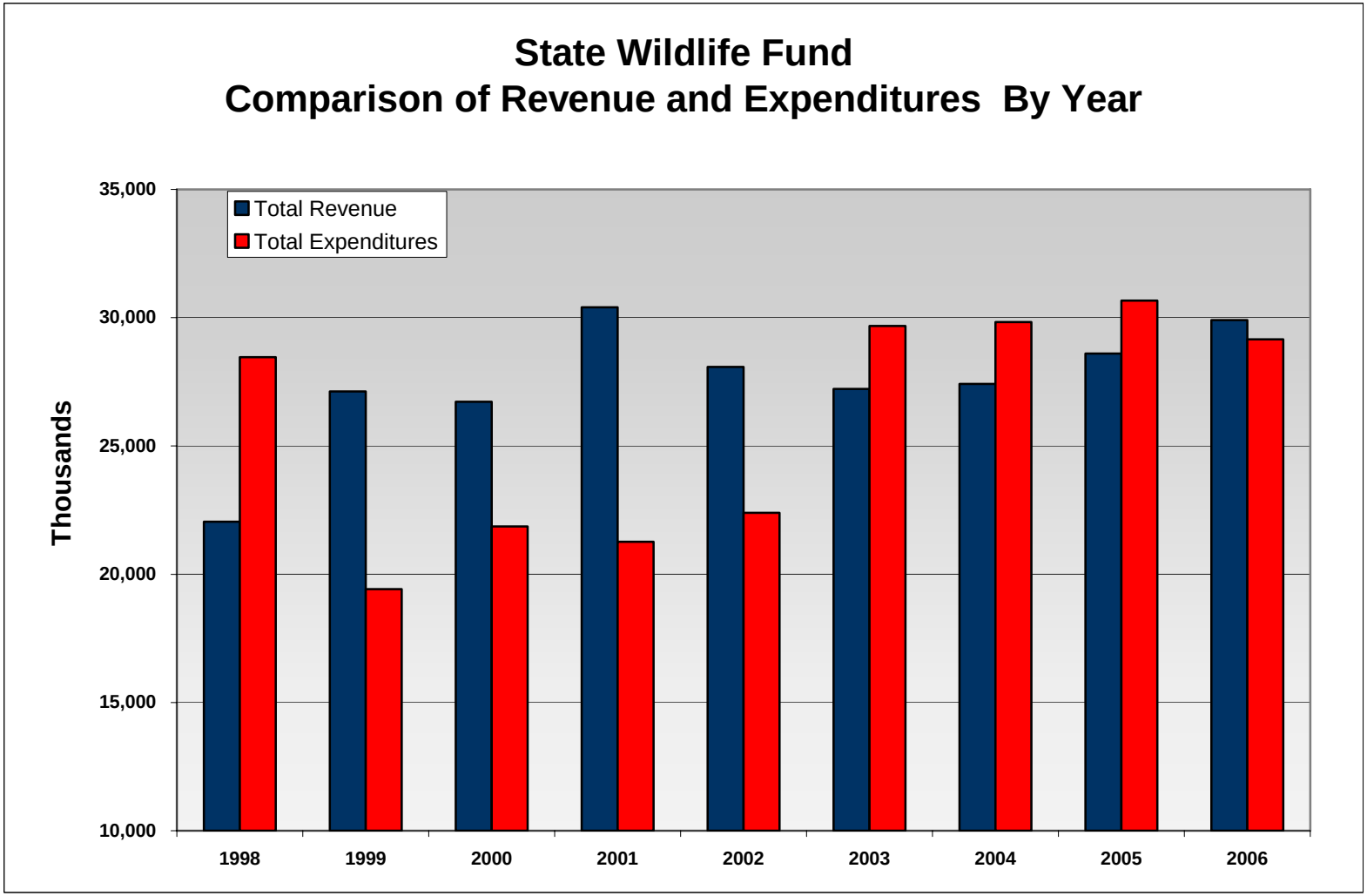


Figure 3

The projections for the 104 Wildlife Fund are as follows and should be used as projections for 07-09 Biennium.

Washington Department of Fish and Wildlife - Revised 05/11/06
05-07 Biennium - 2006 Supplemental Included
Fund 104 Wildlife Account - State
All Agencies - Fund Balance Projection

Estimated Fund Balance	Amount	See Notes
Beginning Balance as of 7/1/05	8,981,843	1
Add 05-07 BN Projected Revenues	57,871,782	2
Total 05-07 BN Projected Available Revenues	66,853,625	3
Less WDFW- Operating Spending Plan	-61,378,000	4
Less DOL- Operating Spending Authority	-824,000	5
Less Sundry Fund Claims	-102,000	6
Net Projected Ending Balance before Capital Expenditures	**4,549,625**	7
Projected Capital Expenditures	-1,235,486	8
Estimated Ending Balance as of 6/30/07	**3,314,139**	9

Notes:

1 Actual Beginning Balance. Per CAFR Rep - Phase 4, dated 12/29/05.NOTE: Will require Legislative auth. to spend

2 05-07 BN Projected Revenues include:

a. Original Projected Revenues	57,656,782
b. 2006 Supplemental (SB 5232 Turkey Tag Sale Revenue)	215,000
Total Projected Revenue:	**57,871,782**

Duck Stamps, Puget Sound Crab Endorsement, Catch Record Cards, Raffles, Auctions, Forfeits, Sale of Property, Public Data Requests, Commercial Fishing Privilege Taxes, Firearm Licenses, and Personalized License Plates.

3 Total of 1 and 2.

4 Per Programs' Estimated Fund 104 Expenditures

a. Original Budget $60,706,000 - $400,000 Set Aside - $171,000 Agency Reduction	-60,135,000
b. 2006 Supplemental	-1,243,000
Total Operating Budget - Spending Plan:	**-61,378,000**

5 Per OFM's 05-07 BN - Operating Spending Authority Schedule-For DOL only.

6 Per OFM's 05-07 BN - Operating Spending Authority Schedule-For Sundry Claims only.

7 Ending Fund Balance after Operating Spending Authority (but before Capital Spending Authority) is: **4,549,625**

8 Projected Capital Expenditures: (Capital Authority: $3,038,434)

a. Region 1 Headquarters	-267,550
b. Land Acquisition	-298,483
c. Grand Creek Re-appropriation	-169,453
d. Duck Stamps and Others	-500,000
Total Capital Budget - Spending Plan:	**-1,235,486**

9 Assuming WDFW will spend Fund 104 as planned, DOL and Sundry Claims will spend all its authorities, Ending Balance as of 6/30/07 is estimated to be: **3,314,139**

Financial Trends and Issues

Core components of the agency are subject to indirect funding

WDFW faces increasing difficulty because the basic infrastructure of the agency (information systems, accounting, budgeting, contracts, personnel, Director's Office, etc.), are dependent upon the agency's ability to collect indirect funding from contracts. This creates instability to the very core of the agency because indirect cash flow is very unstable and unpredictable yet personnel, contracts, fiscal for example are required to operate the agency.

WDFW creates economic development capital for the State of Washington

The Fish and Wildlife Commission, along with the agency, has expressed a common goal to have secure and stable funding to meet the agency's core mission. We realize that an investment in WDFW is an investment in the state's economy. For every $53 of investment in WDFW, the state's economy benefits by $101. An investment in Fish and Wildlife provides an economic development opportunity that redistributes capital dollars from the urban to the rural areas of the state.

Setting priorities

WDFW knows that we cannot be everything to everybody. We do not have the resources nor will the Legislature allocate enough resources to do everything necessary to fulfill our mandate. Treaties, federal and state court decisions, legislative provisos, and other initiatives all put pressure on the budget. In reality, the Commission and agency has very little discretionary money for operations. The agency will be expected to do more with less, and to fund initiatives out of existing resources. When the Legislature meets, the agency ends up losing funding capacity in cost of living adjustment (COLA) increases, unfunded revolving fund charges, unfunded mandates, and increased employer cost for employee benefits. WDFW will be very clear about strategic direction to accomplish the highest priority actions within the limited funding made available.

The Fish and Wildlife Commission and agency will continue to face the challenge of balancing all of these issues in trying to secure appropriate funding to carry out the agency's mission.

Capital Programs and Engineering Strategies

WDFW is currently facing many challenges brought about from increased demands on Washington's natural resources by a growing population base in Washington State. Quality habitat for, and public access to, the fish and wildlife resource is always needed. In turn, there is an ever-increasing demand on aging facilities and infrastructure used to support sustainable fish and wildlife habitat and projects. Here are some of those challenges:

1. Operating existing infrastructure with limited funds

Currently WDFW has over 750 facilities on over 850,000 acres. Many structures and facilities are over 40 years old and do not meet current codes or standards causing inefficiencies and in some cases negative environmental impact. Historically, we receive around $3,000,000 of state bond funds for infrastructure preservation, while trying to manage a backlog reduction plan of around $26,000,000.

To reduce the Department's backlog, our Capital Programs and Engineering staff will focus on the following project types:

- Infrastructure Preservation – Maintains and preserves existing facilities.
- Facilities Renovation – Renovates existing structures to meet current codes and standards.

2. Reducing and managing environmental impact

With a focus on protecting natural resources, it is imperative that the Capital Program and Engineering staff design facilities using best science and technology. WDFW will meet this challenge through the following projects:

- Pollution Abatement Ponds – Improve hatchery discharge water quality to meet current criteria for water returning to waters of the state.
- Fish Screening and Passage – Increase available habitat, protect endangered species, and improve fish passage to increase population.
- Upland Habitat and Wetland Restoration – Protect natural environments for native wildlife to ensure sustainable wildlife populations into the future.
- Fencing – Control wildlife by preventing entry onto roads, highways, and agricultural areas, as well as, protecting sensitive habitat from over use.

3. Enhancing cultural and recreational opportunities

Capital funds buy real estate and make capital improvements to ensure recreational and educational opportunities that allow the public to experience Washington's fish and wildlife.

- Wildlife Viewing Areas – Provide access to wildlife in a safe environment for people and wildlife.

- Access Facilities – Allow recreational and education opportunities such as fishing, hunting, wildlife viewing, and boating in streams, lakes, and marine waters.

- Hatchery Renovation – Provide rearing facilities that enhance and/or sustain healthy fish stocks while protecting native fish stocks.

4. Improving state and local economic vitality

Capital Programs and Engineering enables WDFW to continue providing economic vitality to Washington State and the local economies through:

- Clam and Oyster Seed – Populate saltwater beaches with shellfish creating commercial, tribal, and recreational revenue.

- Hatchery Renovations – Produce fish populations for recreational and commercial fisheries improving local economies.

- Wildlife Area Improvements – Create an environment through habitat improvements and facilities that enables WDFW to manage and sustain native wildlife species for hunting and viewing purposes.

- Public Works Projects – While maintaining, repairing, and constructing projects support fish and wildlife resource management, public works projects provide jobs and economic vitality to the local area.

Technology Needs

Information Technology (IT) plays an important role in assisting WDFW to carry out its mission. IT provides the electronic communications infrastructure, and the tools to effectively manage and make available data resources, for both the public and agency employees. The tools, methods, and infrastructure provided by IT enable the agency to meet goals and objectives in nearly all areas. For example:

- 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.

- Communications and information access systems that promote partnerships.

  IT provides electronic systems for communications, data access, and resource sharing with our partners. The public, employees, and other partners use email and Web Page content to enhance communications and share information.

- 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), Permit Odds Compensation Systems (POCS), and Hydraulic Permit Management System (HPMS) that enable recreational and commercial opportunities and regulatory processes.

The 2005-07 Strategic Plan called for an increase in the use of technology to improve our ability to serve the public through enhanced customer service capabilities and increased access to viewing and harvesting opportunities. Remaining needs to fulfill this goal are:

- Improved access, including remote access and wireless access, to state and agency internal networks
- Improved agency IT security
- Network infrastructure improvements
- New, more effective applications to support agency needs
- Improved access to, and integration of data
- Implement the IT architecture and standards recommended by the agency and State guidelines

The agency will continue to follow and implement recommendations from the WDFW *Information Systems Strategic Plan* (ISSP). The emerging state IT Enterprise Architecture direction will also determine the technology direction for the agency and facilitate integration and communication with other state agencies.

Impacts of our External Environment

Population Growth

Changes in society, including human population growth and habitat conversion due to development, significantly affect the Department's ability to carry out its mandate of preserving, protecting, and perpetuating Washington's fish and wildlife. Factors affecting the agency's efforts to implement these objectives include:

Human population: The state's population stands at 6.3 million people, nearly triple the number of residents in 1950. A higher population brings about changes that affect fish and wildlife, including degraded water and air quality, conversion of natural habitat, increased storm water, and more stress on native plants and animals and their habitats. Increased population also increases use of outdoor recreation areas, such as WDFW's wildlife areas and water access sites.

Forests: In the last 50 years, Washington has lost more than two-thirds of its old-growth forests. Formerly extensive forests have been reduced, fragmented, and converted from diverse ecosystems. Natural forests in western Washington historically require 500 to 1,500 years to reach maturity, but forests today seldom grow 100 years before being harvested. Approximately 258 terrestrial vertebrate species depend on forest habitats; of these some 55 are state-listed as species of concern, including the spotted owl, marbled murrelet, northern goshawk, fisher, woodland caribou and lynx.

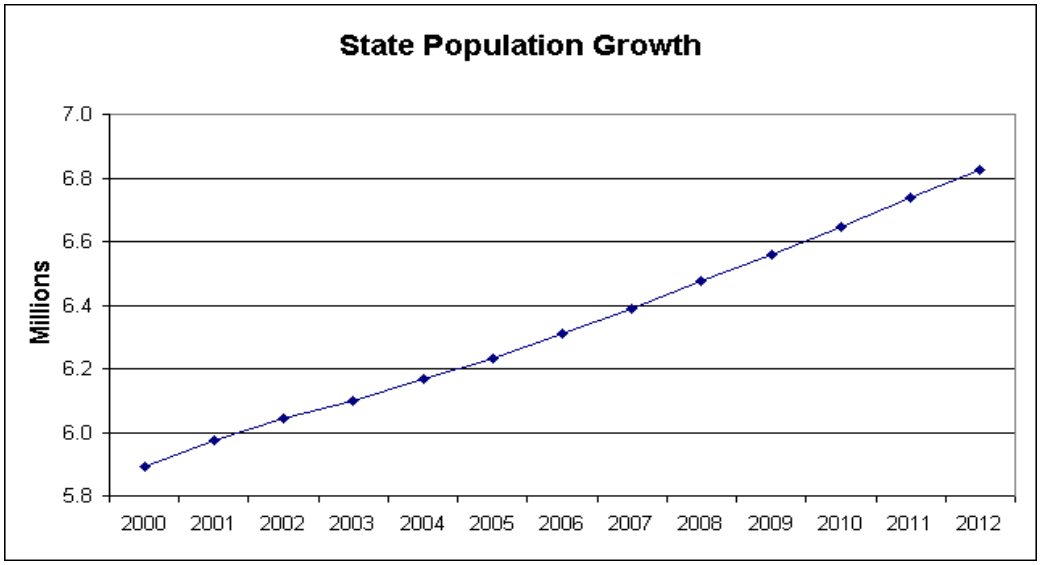
Shrub-steppe and grasslands: Eastern Washington once contained nearly 10.5 million acres of shrub-steppe, and 4.1 million acres of grasslands. Over 70 percent of eastern Washington's native grasslands have been converted to human use since 1800, and more than half the original shrub-steppe habitat in the Columbia Basin has been converted to cropland. Approximately 103 species depend on shrub-steppe and grassland habitats, and 16 of these are state-listed as species of concern. Examples include the pygmy rabbit, white-tailed jackrabbit, Washington ground squirrel, ferruginous hawk, sage thrasher and sagebrush lizard.

Wetlands: Washington has lost some 31 percent of its 1.35 million acres of wetlands. More than 90 percent of wetlands in urban areas have been lost. Approximately 245 wildlife species rely on wetlands, including some listed as species of concern such as the common loon, western pond turtle, Oregon spotted frog and Townsend's big-eared bat.

Estuaries, coastal wetlands and shorelines: Nearly three million people live near the state's ocean coast and Puget Sound. Estuarine and coastal wetlands provide essential habitat for 75 percent of the state's commercial fish and shellfish. At least 70 percent of tidally influenced wetlands in Puget Sound have been lost. Water quality is poor in 65 percent of Washington's estuaries. Human activities have modified about one-third (800 miles) of the Puget Sound shoreline; within central Puget Sound some 52 percent of the shoreline has been modified. These changes significantly impact the fish and wildlife species that rely on these areas for survival. Approximately 237 fish species are associated with shorelines, and some 288 wildlife species live in areas adjacent to streams or other water bodies. Of these species, 65 are listed as endangered, threatened, sensitive, or candidate, including the sea otter, snowy plover, Steller sea lion, copper rockfish, and Hood Canal summer chum.

Water Quantity: The state Department of Ecology has determined that about half of the state's area now has insufficient water to support all the needs of people, plants, and animals. The water in 250 streams is already over-allocated.

Water Quality: Washington is considered among the poorest of our nation's states in key water quality indicators. Significant sources of pollution include: 5.2 million vehicles on 80,000 miles of public roads; more than 36,000 farms on 15.7 million acres of land; 767 commercial dairies with 260,000 cows; 275 municipalities with existing residential, commercial, and industrial sources; and about 40,000 additional houses built each year. Fish and wildlife and their supporting habitats need clean water to survive.



Global Warming

Global warming adds a complex dimension to the already difficult task of managing fish and wildlife in a state with a growing human population. Global warming-- the process in which carbon dioxide from coal, oil and natural gas emissions are warming the earth's atmosphere-- is changing regional temperatures, causing sea levels to rise, shifting rain and snowfall patterns and threatening plant and animal communities.

Based on models used to determine future conditions, it appears the Pacific Northwest will warm at a rate faster than the global average.

Environmental conditions, particularly temperature and moisture, determine species survival. A temperature increase of a single degree can make what was a suitable habitat for a species inhospitable. Global warming associated with human activity is occurring so rapidly that animal adaptation to changing conditions appears highly unlikely.

These impacts jeopardize WDFW's efforts to save currently threatened and endangered species, and are expected to place many other species at risk in the future.

Sustainability

WDFW's Sustainability Team is implementing a long-range plan to take the agency through the year 2050. The Sustainability Team is comprised of a core group of employees including the WDFW Sustainability Coordinator, whom since November 2005 has solely performed sustainability activities partially from a grant provided by Puget Sound Energy. Staff from all areas of WDFW participate in implementing "sustainability" in business practices to maintain a high quality of life for future generations by preserving resources. The 2007-09 sustainability objective and strategies are located under the Competence Goal in this document.

Already, we have:

- Directed all staff to purchase only 100 percent recycled, chlorine-free paper and to minimize paper use;
- Purchased five hybrid vehicles and surplused over one-third of our pre-1996 vehicles;
- Developed a system to track utility costs and usage rates at all facilities, and identified high-usage sites where conservation measures can be focused; and
- Provided information promoting sustainable practices to staff through an Intranet site and information sessions.

WDFW Garbage Sorting Day

2005-07 Resource Management Successes

Citizens of Washington State depend on the Department of Fish and Wildlife (WDFW) to protect and manage the public fish and wildlife resources. Managing this public resource becomes more challenging daily as Washington grows in population and quality habitat is compromised. However, WDFW is realizing success through proactive resource management and continued dialogue and negotiations with co-managers, constituents and other partners. Following is an update on some priority issues from the 2005-07 biennium.

Salmon Recovery, Hatchery Reform and Sustainable Populations

- The Department assisted local watershed regional planning groups in drafting six salmon recovery plans for populations that are listed for protection under the federal Endangered Species Act.

- WDFW is using recommendations made by the Hatchery Scientific Review Group to manage reform efforts at the state's hatchery programs. Agency staff is currently implementing recommendations for infrastructure improvement, monitoring and evaluation.

- WDFW and Tribal co-managers are currently developing "Managing for Success" a tool that will provide citizens and watershed groups with a transparent view of the hatchery, harvest and habitat actions identified for successful salmon recovery.

- The Salmon and Steelhead in the 21st Century is a conservation initiative to recover salmon and provide sustainable fisheries. This action plan will coordinate hatchery and harvest improvements with local watershed salmon recovery plans and will be developed by July 2006. This will be the foundation for actions that take place in the 2007-09 biennium and be reported through "Managing for Success."

Lands 20/20: A Clear Vision for the Future

- Under the guidance of our recently appointed Lands Management Advisory Council, the Department embarked on a new strategy for acquiring lands to protect and manage fish and wildlife resources. This strategy called "Lands 20/20: A Clear Vision for the Future" (July 2005) contains policy and procedures for land purchases to ensure that acquisitions align with WDFW's mandate and mission.

- Citizen advisory groups living in the vicinity of agency lands are helping update Wildlife Area Plans that detail operation and maintenance for all public lands under WDFW care.

Human/Wildlife Conflicts

- Human encounters with potentially dangerous wildlife increased 25 percent from 2004 to 2005. In addition, deer and elk damage to crops continues to cause problems. Although damage claim filings decreased 31 percent from 2004 to 2005, the total amount paid to compensate for these losses rose by 8 percent. The Department is working with landowners to continue to look for new ways to reduce these losses consistent with sound resource management.

- A pilot project is underway in Eastern Washington to implement the use of Wildlife Control specialists to focus only on crop damage caused by elk.

Fishing and Hunting Access

- The Department has taken several actions to improve public access to fishing and hunting, working under the guidance of the Washington Fish and Wildlife Commission's Private Lands Access Policy (C6002). The policy encourages formal partnership agreements with private landowners to secure public access for hunting, fishing, and other wildlife related recreation; provides recognition and incentives to participating landowners; encourages protection and enhancement of fish and wildlife habitat and provides operating standards for access programs. This policy also replaces the Private Lands Wildlife Management Area program with a new Landowner Hunting Permit Program, in response to recommendations from a stakeholder advisory committee.

- WDFW will continue to propose legislative changes to improve liability coverage for landowners who open their lands to the public through access agreements. If approved by the Legislature, a user fee of $5 per hunter would create a dedicated fund for private lands access programs.

- WDFW continues to work with Tribes to address fishing and hunting access concerns.

- WDFW has developed an interactive, web-based mapping program known as "GoHunt," that displays access opportunities on public and private land.

- Partnerships for Pheasants and the Corn Stubble Retention programs provide access and private lands habitat for pheasants in southeastern Washington and waterfowl in the Columbia Basin.

- Increased participation in the "Adopt an Access" program.

- $1.3 million in improvements to five access areas funded by Boating Facilities Grants from the Interagency Committee for Outdoor Recreation.

Puget Sound Shellfish

- Increased catch rates and total catch in Puget Sound shellfish fisheries, such as the Dungeness crab fishery, created more pressure on shellfish resources and allocation formulas. WDFW fishery managers crafted seasons aimed at keeping recreational harvest levels within annual averages of the 1996 through 2000 base years and providing commercial fishers their historical share.

- Efforts are under way to improve constituent confidence in the recreational Dungeness crab catch accounting. Incentives have been created to increase compliance with using catch record cards, and an alternative method to estimate the recreational catch is under development if planned improvements are inadequate.

- Harvest sharing between treaty Indian tribes and non-tribal fishers also has been challenged by tribes that claim state Puget Sound geoduck and Hood Canal crab fishery prevent them from harvesting an equal share of these resources in their treaty area. WDFW and the Skokomish Tribe have developed a memorandum of understanding to develop and examine a crab catch accounting system for their respective fisheries. WDFW and the Department of Natural Resources have worked with the tribes to develop a state commercial geoduck fishery plan that addresses equal treaty and non-Indian access to fishing opportunity.

- WDFW and the Tribes have been conducting fishery tests throughout Puget Sound to better understand impacts of high harvest pressure on shrimp beds and to assess validity of quotas.

Improving Mitigation Effectiveness

- WDFW is working with other agencies to improve mitigation effectiveness. This initiative will use habitat assessments, inventories and other tools to inform environmental permitting decisions. Most of these tools have been developed through salmon recovery, nearshore and other voluntary programs. The effort aims assistance at permitting agencies to prioritize restoration actions that mitigate impacts to fish and wildlife habitat caused by growth and development. The objective is to provide greater environmental benefit from the mitigation actions identified through local, state, and federal regulatory programs.

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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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Washington Department of Fish and Wildlife

SIGNIFICANT GEO-DATASETS

WDFW-GIS

Definitions:

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.

Significant geo-datasets' must meet one or more of the following criteria:

1. Geo-dataset is mission critical for agency or major program or is required for regulatory purposes and/or,
2. Estimated or expected life cycle costs or investment exceed $500,000 and/or,
3. Geo-data is regularly distributed outside agency and/or,
4. Geo-data holding has been designated significant by Information Services Board.

Dataset Description	Layer Names	WDFW Program	Individual Responsible For Metadata	Comments	Descriptions
Priority Habitats and Species (PHS) polygon	phspoly	Habitat	Terry Johnson		This dataset consists of polygons that describe occurrences of habitats and species considered priority by WDFW.
Habitat points	habpnts	Habitat	Terry Johnson		This dataset consists of priority habitat sites that cannot be represented as polygons in the PHS polygon database.
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, and frequency of flooding.
Barriers	fish ways culverts dams	Habitat	Brian Benson		This dataset contains information on the location, physical characteristics and barrier status of man made fish ways, culverts and dams.
Salmon and Steelhead Habitat Inventory and Assessment Program(SSHIAP)	segments edt barriers	Habitat	Tracy Trople		This dataset contains information on a 1:24,000 scale stream network broken down into segments of like gradient; preservation/restoration rankings based on stream and habitat characteristics; and locations of barriers to fish passage.
Klickitat County Oak	klickoak	Wildlife	Shelly Snyder		Oak canopy classification for Klickitat County.

	A	B	C	D	E	F
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**Individual Responsible For Metadata**	**Comments**	**Descriptions**
21	Shrubsteppe	lc_east	Wildlife	Shelly Snyder		Shrubsteppe habitat for eastern Washington.
22	Old Growth	og1988	Wildlife	Shelly Snyder		1986 mapping of forest stand type categories in western Washington
23	Game Management Units	gmu2003	Wildlife	Shelly Snyder		Boundaries used for game management purposes.
24	Deer Units		Wildlife	Shelly Snyder	This layer is currently in development - target completion before December 2003	Boundaries used for deer management purposes.
25	Elk Units		Wildlife	Shelly Snyder	This layer is currently in development - target completion before December 2003	Boundaries used for elk management purposes
26	Goat Units		Wildlife	Shelly Snyder	This layer is currently in development - target completion before December 2003	Boundaries used for goat management purposes.
27	Sheep Units		Wildlife	Shelly Snyder	This layer is currently in development - target completion before December 2003	Boundaries used for sheep management purposes.
28	Moose Units		Wildlife	Shelly Snyder	This layer is currently in development - target completion before December 2003	Boundaries used for moose management purposes.
29	WDFW Ownership	owned controlled f_access	Wildlife	Shelly Snyder		This dataset contains general boundaries of lands that WDFW owns or manages and fishing access sites.
30	Sage Grouse Distribution	sage	Wildlife	Shelly Snyder		Current and historic sage grouse distribution for western states.
31	Sharp-tailed Grouse Distribution	sharptail	Wildlife	Shelly Snyder		Current and historic sharp-tailed grouse distribution for western states.
32	Road Inventory		Wildlife	Shelly Snyder	This layer is currently in development - target completion before December 2003	Inventory of road conditions on WDFW owned lands in compliance to the forest practices rules.

	A	B	C	D	E	F
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**Individual Responsible For Metadata**	**Comments**	**Descriptions**
33	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.
34	Tribal Ceded Areas				This layer is currently in development - target completion before December 2003	WDFW interpretation of tribal ceded area boundaries.
35	GAP	land cover mammals reptiles/ amphibians birds	Wildlife	Shelly Snyder		This dataset contains land cover information and modeled species distribution.
36	Marbled Murrelets	mmbf8 mmsect mmstns mmdets mmst3bf	Wildlife	Raj Deol		This dataset contains information on marbled murrelet occupancy detection locations and areas.
37	Spotted Owls	owls bfhsterr bfnoterr bfterr	Wildlife	Raj Deol		This dataset contains information on spotted owl site center locations and various associated polygon buffers.
38	Seal/Sea Lion Haulout sites	haulouts	Wildlife	Raj Deol		Contains locations of seal and sea lion haulout sites in Washington waters.
39	Seabird Colonies	sbirdcat	Wildlife	Raj Deol		Contains locations surveyed for breeding seabirds.
40	Wildlife Heritage point	heritage	Wildlife	Raj Deol		This dataset contains information on documented site observations of state and federal listed species of concern.
41						

	A	B	C	D	E	F
13	**Dataset Description**	**Layer Names**	**WDFW Program**	**Individual Responsible For Metadata**	**Comments**	**Descriptions**
42	StreamNet	anadfish anadpres anadrear anadspwn banks barriers bullchar facility phsfish resfish sasi str100 lakes	Fish	Martin Hudson		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.
43	WLRIS	fishdist sasi str24 wby24	Fish	Martin Hudson		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
44	Marine Resources	abalone clamhard clamsubt crabline geoduck herrhold oyster razrclam rocksole shrmppan smelt urchin herrspwn sandlanz	Fish	Dale Gombert		This dataset is a collection of information concerning marine fish and shellfish resources in the coastal and inland marine waters of Washington.

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2007 Information Technology Portfolio

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