Department of Natural Resources

Fiscal 2016 Agency Technology Plan

April 2015

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Overview

Department of Natural Resources (DNR) is dedicated to the conservation, protection, effective management, and maintenance of Wisconsin's natural resources. DNR is responsible for implementing the laws of the state and, where applicable, the laws of the federal government that protect and enhance the natural resources of our state. DNR is charged with the responsibility for coordinating the many disciplines and programs necessary to provide a clean environment, and a full range of outdoor recreational opportunities for Wisconsin citizens and visitors.

Information technology (IT) influences every activity in daily operation of the DNR and its lines of business (programs). Our many disciplines add complexity to managing our technology environment. Our customers have high expectations and their roles vary from citizens, accountants, biologists, scientists, statisticians, technicians, engineers, law enforcement, project managers, program managers, customer support, tribes, and other governmental organizations. Integration of DNR business and IT strategic planning processes ensures alignment of IT directions with business goals. The strategic information technology plan should be viewed in context of the Department's business plan. It serves as our roadmap for leveraging technology in our business processes and is intended to guide the development of more detailed implementation plans. As IT improves, DNR will be able to perform our mission increasingly effectively. Leveraging technology in our business processes requires:

- Complete understanding of the Department's mission
- Employment of best business practices
- Implementation of structured and standardized architectures
- Process-driven business and systems development
- Partnership with all stakeholders
- Clarity of the business requirements
- Effective management and protection of information as a strategic resource

IT Goals

Strategic Action Plan

DNR's Action Plan lists strategic goals that serve as guideposts for IT resource investments, and are consistent with the statewide enterprise IT initiatives. The Plan establishes specific agency-wide actions to help us achieve our vision: *We excel at protecting and managing natural resources while supporting the economy and the well-being of our citizenry.*

The Action Plan is intended to work in concert with each of the Division's goals and strategic plans. It establishes actions and performance measures in four target areas:

1) Staff Work Environment
2) Customer Satisfaction
3) Fiscal Resources
4) Efficiency and quality of operations, products & services

FY 2016 IT Goals

Key IT goals for the DNR in FY 2016 include:

State Transforming Agency Resources (STAR) implementation

Continuing support of this statewide consolidation and upgrade of finance, budget, procurement, business intelligence and human resource systems is expected to consume significant agency resources.

Reduced IT Security Risk

FY16 activities related to DNR IT security include: participation in DOA endpoint security and managed security activities; follow-up on our internal risk assessment; implementation of data encryption policies; and participation in Continuity of Operations (COOP) activities.

Improved Stability of Geospatial Information Systems (GIS)

DNR's mission-critical GIS services have been unreliable for much of FY2015, and extensive action is required to stabilize the services. Hiring and training new GIS team leadership and systems (GIS and database) staff will be a priority.

Improved Database Services

Long-term lack of depth behind DNR's Data Architect has limited our ability to improve and ensure reliability of these systems. A Database Administrator is expected to be hired in late FY15, and transitioning DBA responsibilities from the Data Architect will be a priority, allowing the Data Architect to resume those important responsibilities, and enabling investment in new services such as Business Intelligence.

IT Governance Review

IT leadership in DNR has been working throughout FY15 to evaluate how DNR makes decisions and manages performance in its distributed IT environment, to ensure IT services business alignment, efficiency, and consistency.

Enterprise IT Strategic Guiding Principles

- **Identification of long-term sustainable funding for IT systems development, staff and training is a priority**

- **Senior leadership will provide over-sight of the Department's IT infrastructure:**
  - ✓ An IT Oversight Board is established;
  - ✓ IT information and resources will be exchanged across the agency to ensure opportunities for partnership, collaboration, efficiency and shared funding.

- **The Department is a geographic-based agency which utilizes automated business systems based on locational data. To ensure we are cost-effective, we will:**
  - ✓ Maximize use of common platforms;
  - ✓ Ensure existing applications have access to standard software.

- **The Department integrates data to benefit Wisconsin's people, environment, and economy. To accomplish this, we will:**
  - ✓ Maximize use of common platforms on which our IT systems are built;
  - ✓ Ensure our data systems are seamless to our customers;
  - ✓ Strive to make data and information easily available to the public;
  - ✓ Design systems that provide information to support science-based decisions;
  - ✓ Develop data models to collect relevant information from diverse data systems.

- **The Department develops data systems that support efficient public and private business operations. To accomplish this, we will:**
  - ✓ Maximize use of common interfaces for our customers;
  - ✓ Develop common, customer-friendly interactive IT systems;
  - ✓ Develop tools to continuously survey customers to assess business needs and customer satisfaction.

- **The Department strives to stay on the 'value-edge' of technology. To accomplish this, we will:**
  - ✓ Keep our IT systems current to ensure quality performance;
  - ✓ Set consistent systems maintenance standards for all programs;
  - ✓ Keep our staff trained;

- **The Department maximizes return-on-investment from our IT investments. To accomplish this, we will:**
  - ✓ Calculate and track return-on-investment of our data systems;
  - ✓ Use key performance indicators for transparency and accountability.

IT Budget

Agency IT budget is provided below. The Bureau or Technology Services is the central IT organization, and thus is broken out of its CAES division figures for the purpose of granularity.

Division	Total Projected Division Budget
AWaRe	$1,539,538.35
CAES	$4,174,526.57
Enforcement	$1,524,874.42
Forestry	$2,408,800.00
Land	$1,904,495.63
Water	$2,475,885.29
Total	$14,028,120.26

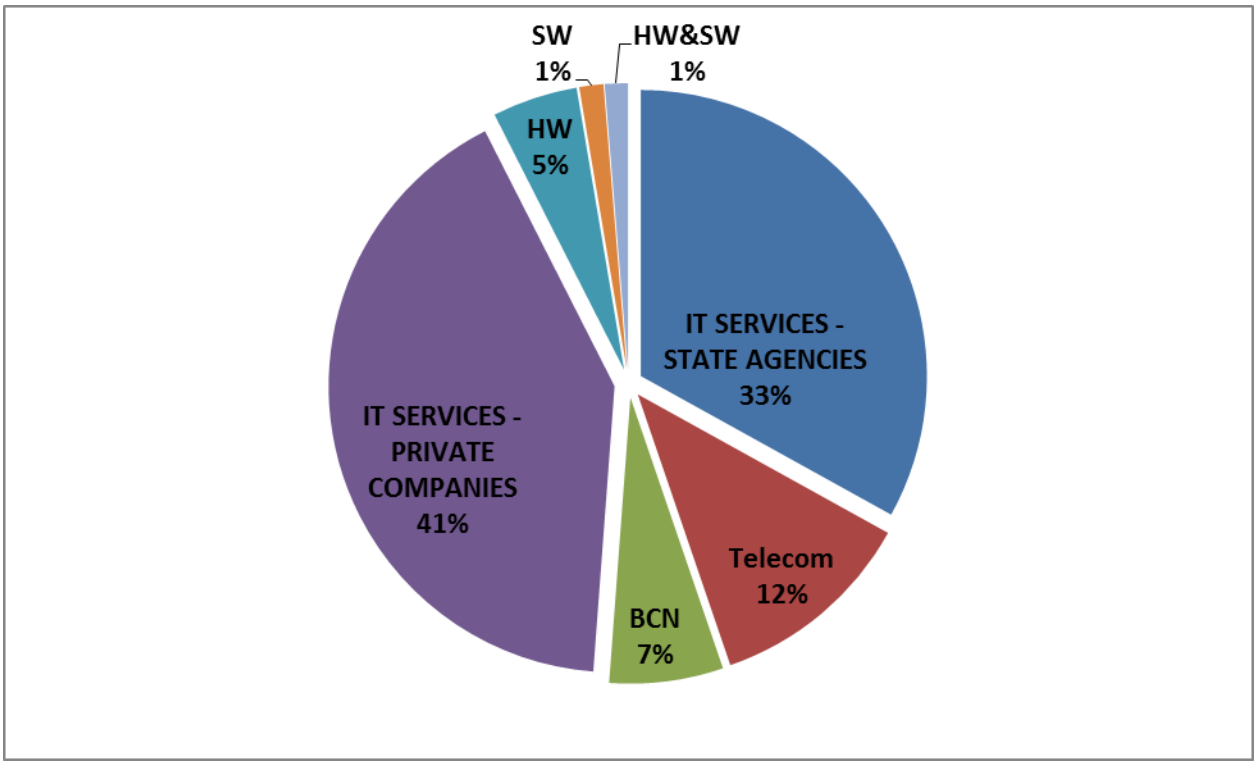

Figure 1: Expense distribution

IT Staffing

Current agency-wide staff figures are provided below.

Division	FTE
Air, Waste, and Remediation & Redevelopment Division	14
Customer and Employee Services Division (includes Technology Services)	67.9
AD - Office of the Secretary (Law Enforcement, Office of Business Support & Sustainability, Office of Communications)	11.08
Forestry Division	10
Land Division	4
Water Division	23
Total	**129.98**

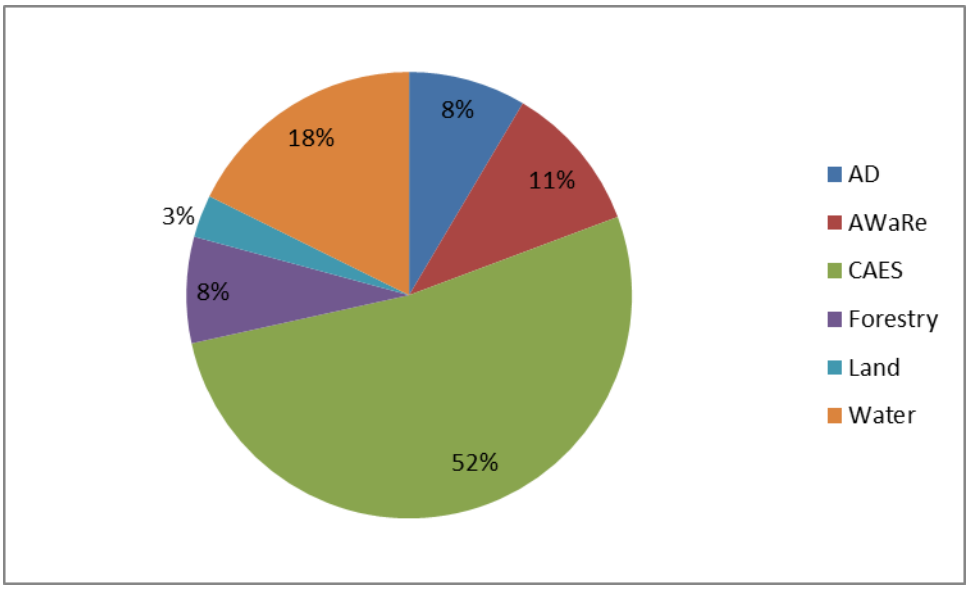

Figure 2: Staffing distribution

Agency Projects

The following IT projects expected to cost $1,000,000 or more, or are otherwise high profile. This includes projects that are starting, ongoing or ending anytime between July 1, 2015 and June 30, 2014.

<table>
<tr><td colspan="4">1) Project Name:

Automated Customer Service Business System Replacement</td></tr>
<tr><td colspan="4">2) Project Type: ☐ New FY16 ☒ Ongoing</td></tr>
<tr><td colspan="4">3) Project Description: The primary business function of this project is recreational licensing and vehicle registrations, natural resources citations, safety education, and wildlife harvest registrations. Creating an integrated system which will allow DNR to maintain one comprehensive customer database and purchasing system. Additional business function integrations may be negotiated and implemented as needed. The physical architecture will reside in a virtual environment at the Femrite Data Center.</td></tr>
<tr><td>4) Project Schedule</td><td>Start: 12/1/2013</td><td colspan="2">Expected Completion: 3/1/2016</td></tr>
<tr><td rowspan="2">5) Application Platform:</td><td>☐ Mainframe</td><td>☒ Web</td><td>☐ Client-Server</td></tr>
<tr><td>☐ Physical</td><td>☒ Virtual</td><td></td></tr>
<tr><td rowspan="2">6) Application Type:</td><td>☐ In-house Developed</td><td>☐ COTS</td><td>☐ SaaS</td></tr>
<tr><td>☐ Vendor Managed/hosted</td><td colspan="2">☒ Other (specify) Vendor Developed/Managed State Hosted</td></tr>
<tr><td colspan="4">7) Technical Architecture Components: DET, in consultation with Contractor, is responsible for implementing virtual and physical three tier architecture dedicated to the ACSBS system. This system will use virtual machines that are a part of the physical hosts use in the WIN production environment. Additional virtual machines and hosts will be used as necessary to support the ACSBS as demanded by the application. Hosting environment for this system will be designed to support a three tier architecture where only the presentation/web layer resides in the DMZ. The application logic will be virtually and physically separated from the presentation/web layer. All data will be stored in database servers that are logically and physically separated. Both application and database servers will reside in a secure domain separated from DMZ, which disallows any direct traffic from DMZ.</td></tr>
<tr><td colspan="2">8) Estimated Total Project Hours: estimating 8000 staff hours to project completion</td><td colspan="2">8a.) Estimated Total Project Cost: There are no development costs. Contractor will receive transaction fees from each sale to recover costs. No fees will be collected until the system is fully</td></tr>
</table>

	functional. Contractor will collect fees during pilot prior to full production roll out.

9) Related Projects and Dependencies:

10) Project Sponsorship and Funding *(please complete the information below)*

Executive Sponsor: Kristy Rogers Division: Customer and Employee Services

Business Sponsor: Diane Brookbank Division: Customer and Employee Services

Senior Project Manager: Mark Rappe IT Authority:

Is Full Funding for Project Approved/Secured? ☒ Yes ☐ No

Funding Source for the Project: ☐GPR $_____ ☐PR $_____ ☐SEG $_____

☐FED $_____

11) Issues that may influence successful execution of the project: Ability of system to handle high volumes of traffic, access/migration of old data, project direction changes or shifts, resource constraints, financial records and integrations, legislative changes, definition of training responsibilities, loss of primary funding, loss of subject matter expertise, DNR agent and non-DNR agent acceptance of new system, deployment plan not defined, force majeure, WI DNR process changes.

1) Project Name:

Division of Enforcement Activity Reporting System (DEARS)

2) Project Type: ☐ New FY16 ☒ Ongoing

3) Project Description:

DEARS is the time, activity, expense, and mileage reporting program specific to Law Enforcement employees. It keeps more precise data for reporting and metrics purposes. LE has used this program since 1999.

4) Project Schedule	Start: 7/1/2015	Expected Completion: 12/31/2015	
5) Application Platform:	☐ Mainframe	☐ Web	☒ Client-Server
	☐ Physical	☐ Virtual	
6) Application Type:	☐ In-house Developed	☐ COTS	☐ SaaS
	☐ Vendor Managed/hosted	☒ Other (specify) Contractor Developed	

7) Technical Architecture Components:
Visual Basic Client with MS Access Database – Oracle Server for data retention and interoperation

8) Estimated Total Project Hours: <40	8a.) Estimated Total Project Cost: <$2500

9) Related Projects and Dependencies:
STAR Project

10) Project Sponsorship and Funding *(please complete the information below)*

Executive Sponsor:		Division:
Business Sponsor:	Mark Burmesch	Division: Law Enforcement
Senior Project Manager:	Karl Brooks	IT Authority: Jeff Schuetz

Is Full Funding for Project Approved/Secured? ☒ Yes ☐ No

Funding Source for the Project: ☐GPR $_____ ☒PR $_____ ☐SEG $_____

☐FED $_____

11) Issues that may influence successful execution of the project:

Timing of STAR Project Completion

1) Project Name:

Drinking Water System (DWS) maintenance projects

2) Project Type: ☐ New FY16 ☒ Ongoing

3) Project Description: The public Drinking Water System (DWS) is a data system created and maintained by the Bureau of Drinking Water and Groundwater to enforce Safe Drinking Water Act (SDWA) regulations covering Public Water Systems. DWS is comprised of several subsystems, and contains the monitoring and reporting requirements for each Public Water System and their drinking water sampling results. It also includes violations for any missing requirements and exceedances of the maximum contaminant levels (MCLs) and well construction data.

In FY 16 eleven separate maintenance projects are planned for various aspects of DWS, including updates to user interfaces, changes to automated determinations of monitoring requirements and compliance, changes in federally mandated monitoring and reporting requirements and additional tools for staff to improve consistency and increase efficiency, among other improvements. The information below combines all eleven projects. None of the individual projects exceed $25,000 in cost. All the projects are federally funded.

The Drinking Water Data System evaluates on average over a thousand drinking water monitoring results each business day. The data systems design enables it to determine, by system, if monitoring requirements are met as well as drinking water quality standards. Effective operation of this system is critical to implementation of the Safe Drinking Water Act in Wisconsin and the protection of public health.

4) Project Schedule	Start:	Expected Completion:	
5) Application Platform:	☒ Mainframe	☒ Web	☐ Client-Server
	☐ Physical	☒ Virtual	
6) Application Type:	☒ In-house Developed	☐ COTS	☐ SaaS
	☐ Vendor Managed/hosted	☐ Other (specify)	

7) Technical Architecture Components: SPRING, Oracle Forms, Oracle Reports, Oracle RDBMS, Weblogic

8) Estimated Total Project Hours: 3410	8a.) Estimated Total Project Cost: $179,940

9) Related Projects and Dependencies: The eleven individual projects are interrelated and interdependent. These projects are not depended on other projects outside DWS.

10) Project Sponsorship and Funding *(please complete the information below)*

Executive Sponsor: Russ Rasmussen Division: Water

Business Sponsor: Jill Jonas Division: Water

Senior Project Manager: Steve Elmore IT Authority:

Is Full Funding for Project Approved/Secured? ☒ Yes ☐ No

Funding Source for the Project: ☐GPR $_____ ☐PR $_____ ☐SEG $_____

☒FED $179,940

11) Issues that may influence successful execution of the project: Continuation of federal funding and Department staffing levels could both affect the successful completion of these projects.

1) Project Name:

Fish Contaminant System (FCS)

Maintenance of Fish Contaminant System (FCS) and Development of FCS Data Flow to Water Quality Exchange (WQX) FY16 UPDATE

2) Project Type: ☐ New FY16 ☒ Ongoing

3) Project Description: MAINTENANCE of FCS -- The FCS stores fish contaminant sample information and results and tracks sample processing and fish consumption advice. The FCS was developed originally in the 1980s (oracle system) and today is served by a .Net system (upgraded after approval of an SDF in 2010). The system has been maintained by a contractor since 2006 but before that is was maintained by internal IT staff.

4) Project Schedule	Start:	Expected Completion:	
5) Application Platform:	☒ Mainframe	☒ Web	☒ Client-Server
	☐ Physical	☐ Virtual	
6) Application Type:	☒ In-house Developed	☐ COTS	☐ SaaS
	☐ Vendor Managed/hosted	☒ Other (specify) webbased query of database tables	

7) Technical Architecture Components:

DATABASE PRODUCT ORACLE

FRAMEWORK MICROSOFT .NET

TOOL & FUNCTION VISUAL BASIC - UI

TOOL & FUNCTION VISUAL SOURCE SAFE - SOUCE CODE MANAGEMENT

PLATFORM WEB INTRANET

SERVER DNR_SECPRD: Oracle Database Secured Production Server (ora-op007.enterprise.wistate.us)

SERVER DNR_SECTST: Oracle Database Secured Development Server (ora-od007.enterprise.wistate.us)

SERVER DNR_UA_SECPRD: Oracle Database Secured UAT Server (ora-oa007.enterprise.wistate.us)

SERVER IIS WEB PROD INT: IIS Web Intranet Production Server (intranet.dnr.state.wi.us)

8) Estimated Total Project Hours: less than 80	8a.) Estimated Total Project Cost: less than $3000

9) Related Projects and Dependencies: Intranet, FCS, SWDV/GeoCortex

From APPCAT:

DEPENDENCY FISH CONTAMINANTS SYSTEM (FCS) depends on SURFACE WATER DATA VIEWER (SURFACEWATER DV)

DEPENDENCY FISH CONTAMINANTS SYSTEM (FCS) depends on SURFACE WATER MONITORING INTEGRATED SYSTEM (SWIMS)

DEPENDENCY FISH CONSUMPTION ADVICE PUBLIC QUERY (FCSEXTERNALADVQRY) depends on FISH CONTAMINANTS SYSTEM (FCS)

DEPENDENCY SURFACE WATER DATA VIEWER (SURFACEWATER DV) depends on FISH CONTAMINANTS SYSTEM (FCS)

DEPENDENCY SURFACE WATER MONITORING INTEGRATED SYSTEM (SWIMS) depends on FISH CONTAMINANTS SYSTEM (FCS)

10) Project Sponsorship and Funding *(please complete the information below)*

Executive Sponsor: Russ Rasmussen Division: WD

Business Sponsor: Margie Damgaard Division: WD

Senior Project Manager: Candy Schrank IT Authority:

Is Full Funding for Project Approved/Secured? ☒ Yes ☐ No

Funding Source for the Project: ☐GPR $_____ ☐PR $_____ ☐SEG $_____

☒FED $_as needed up to $3000 for contractor time only_____

11) Issues that may influence successful execution of the project:

1) Project Name:

FY16 DNR Law Enforcement Program Laptop/Tablet Purchase

2) Project Type: ☒ New FY16 ☐ Ongoing

3) Project Description:
The CF-31 lifecycle/warranty period will expire 3/16. As a result, we will need to have our next iteration of portable hardware purchased by 10/15. We are currently exploring another iteration of Panasonic Toughbooks, but are also exploring Panasonic and GETAC Tablets and well as a GETAC convertible laptop.

4) Project Schedule	Start: 7/1/2015	Expected Completion: 07/1/2016	
5) Application Platform:	☐ Mainframe	☐ Web	☐ Client-Server
	☒ Physical	☐ Virtual	
6) Application Type:	☐ In-house Developed	☐ COTS	☐ SaaS
	☐ Vendor Managed/hosted	☒ Other (specify) Hardware Purchase	

7) Technical Architecture Components:
Ability to run Windows 7, 8.1 & 10 when available. Ability to run specific LE applications. Ability to work with squad hardware.

8) Estimated Total Project Hours: 250+	8a.) Estimated Total Project Cost: ~$850K

9) Related Projects and Dependencies:
BTS Windows 8.1 Image, LE Program testing and DSL Implementation

10) Project Sponsorship and Funding *(please complete the information below)*

Executive Sponsor:		Division:
Business Sponsor:	Mark Burmesch	Division: Law Enforcement
Senior Project Manager:	Karl Brooks	IT Authority: Jeff Schuetz

Is Full Funding for Project Approved/Secured? ☐ Yes ☒ No

Funding Source for the Project: ☒GPR $_____ ☒PR $_____ ☒SEG $_____

☒FED $_____

11) Issues that may influence successful execution of the project:
Amount of funding received, availability of hardware configuration, availability of DNR image, results of pilot testing.

1) Project Name:

TraCS 10

2) Project Type: ☐ New FY16 ☒ Ongoing

3) Project Description:
TraCS 10 is the Electronic Citation software that the DNR collaborates with DOT on to issue electronic citations to the public in the event of a violation.

4) Project Schedule	Start: 7/1/2015	Expected Completion: 07/1/2016	
5) Application Platform:	☐ Mainframe	☐ Web	☒ Client-Server
	☐ Physical	☐ Virtual	
6) Application Type:	☐ In-house Developed	☐ COTS	☐ SaaS
	☐ Vendor Managed/hosted	☒ Other (specify) DOT/Vendor developed	

7) Technical Architecture Components:
Server running Windows Server 2012, SQL Server 2012, Network Access, Windows 7

8) Estimated Total Project Hours: 250+	8a.) Estimated Total Project Cost: <$50K

9) Related Projects and Dependencies:
DET Server upgrades and security patches, network connectivity

10) Project Sponsorship and Funding *(please complete the information below)*

Executive Sponsor:		Division:
Business Sponsor:	Mark Burmesch	Division: Law Enforcement
Senior Project Manager:	Karl Brooks	IT Authority: Jeff Schuetz

Is Full Funding for Project Approved/Secured? ☐ Yes ☒ No

Funding Source for the Project: ☒GPR $_____ ☐PR $_____ ☒SEG $_____

☐FED $_____

11) Issues that may influence successful execution of the project:

None at this time.

Potential Agency Projects

The following lists all potential agency IT projects expected to meet the $1,000,000 cost threshold that are in the conceptual phase, or that might be initiated in FY15 due to potential legislative changes (state or federal), or that might be dependent on securing grant funding (from a state, federal or nongovernmental organization).

Potential Project Name: ***Electronic Field Data Collection System***
Description: In an effort to gain consistency across the Division and to be able to provide better technical assistance and support, Forestry submitted a budget initiative to secure funding for the purchase of hardware and commercial software solutions for electronic field data collection efforts. This budget initiative was included in the Governor's proposed budget. The goal would be to reduce the amount of time field staff spend transcribing information into our systems. This project would be to purchase hardware and commercially available software, evaluate needs for any customization or development needed to organize or collect the data from the field and translate that into existing systems. Training efforts would also be included in rolling out this technology to ensure field staff are getting the most out of the investments being made.
Anticipated Total Cost: $400,000 - $500,000 (includes an estimate of hardware, software and staff time plus fringe).
Resourcing: SEG

Potential Project Name: ***Fire Reporting System***
Description: The DNR, Division of Forestry is required to track all individual "forest fires" occurring within organized state protection areas and for all cooperative area "forest fires" which occur or burn on DNR owned or controlled lands. This includes any uncontrolled, wild or running fires occurring on forest, marsh, field, cutover or other lands or involving farm, city or village property and improvements incidental to the uncontrolled, wild or running fires occurring on forest, marsh, field, cutover or other lands. In order to track and report these fires, the Division of Forestry developed a system called the Individual Forest Fire Reporting System (IIFRS) in 2005 using a development language that was available to us at the time. Although this language still works, it has not been supported by Microsoft since 2001. The system has been difficult to maintain and would greatly benefit from updating the applications front and middle tier interfaces with a more efficient updated language, taking advantage of advances in technology over the past decade. In addition, new functionality is needed in IFFRS such as linking to the DNR's billing systems (soon to be STAR). The redevelopment of IFFRS is needed to mitigate the risk of system failure and to meet the current needs of the Forest Fire Protection Program. A range of values are included in the estimate to re-write existing code, and re-engineer aspects that are in need of updating (e.g. security).
Anticipated Total Cost: $300,000 – $400,000 (includes an estimate of staff time plus fringe).
Resourcing: SEG

Potential Project Name: ***Private Lands Electronic Cutting Notices and Reports***
Description: The Cutting Notice and Report is used to ensure that sound forestry is being practiced on tax law lands and to track harvested forest products. The department often receives cutting notices in various forms of completeness. For notices that are incomplete or lacking enough detail to make approval possible by the local forester, some DNR staff have completed the form for the applicant by filling in missing information or adding enough detail to make the notice approvable. Others have sent the notice back for more detail to be provided by the notice drafter. The applicant and their agent do not always receive feedback so they will likely commit the same errors in the future. Providing an electronic submission form with automated Quality Assurance / Quality Control checks will save the forester time spent on incomplete forms and will allow them to focus on approval of the form based on complete content. There is a proposal in the Governor's budget that will impact how this project would be implemented, therefore until the budget is known the effort required for the implementation of this project ranges widely.
Anticipated Total Cost: Estimated Total Project Cost: $100,000 - $500,000 – this wide range is because there are so many unknowns about approvals and the proposed technology at this time. (This includes an estimate of contractor and staff time, plus fringe).
Resourcing: SEG

Potential Project Name: ***Public Lands Financials (Timber Sales, Invoicing)***
Description: Public Financials & Public Timber Harvests includes opening up edit access and use by all appropriate forestry staff to timber harvest and financial information; electronic completion, submission, approval and printing of Timber Sale Notice & Cutting Reports (Form 2460-001); and web-based timber sale ledgers. Also included is print-to-mail invoicing for timber sales linking finance accounts receivable system & ledgers; automated severance tax invoicing for County Forests and deferred payment on State sales. Develop a means to maintain logging contractor information reflecting eligibility for bidding on State sales, perhaps linking to logger training information retained by the Great Lakes Timber Professionals Association (GLTPA) or potentially Worker's Comp information through Dept. of Work Force Development. Complete evaluation of reporting needs, and provide broader report availability for all users (so staff can run reports for their local use or their local property groups at any time). This would include enhanced stumpage reporting -- trends, raw public data summarized by year, property, species, or product and expanded reporting of timber sale information (e.g. Sold value/volume by product, under contract, by property, area or contractor; average purchase price by property, species, or product; stumpage trends, cruise accuracy, and harvest schedule monitoring). As part of the implementation we will auto-populate biennial accomplishment reporting with previously entered data from WisFIRS Public Lands.
Anticipated Total Cost: $625,000 - $725,000 (includes an estimate of contractor and staff time plus fringe).
Resourcing: SEG

Potential Project Name:

Wisconsin Forest Inventory and Reporting System (WisFIRS) Private Land Financials, Cost Share Programs

Description: WisFIRS Private Lands Management is an application to assist in DNR management of privately-owned forest land (Managed Forest Law (MFL) and Forest Crop Law (FCL) on the administrative and financial functions required by those tax law programs. Specifically, this project adds on additional components onto the Private Lands Tabular application with the following functions:

A redesign of private lands financial components; including better access to online real-time data; streamlining to improve turn-around time and reduce the number of employee hours needed to process payments; as well as making use of electronic payments (e.g., online payments via credit cards, direct transfers, etc.). While the components are built and currently working, this portion of the project would be a re-write/modification of the existing process to make improvements and increase efficiencies processing of payments to municipalities for MFL yield and withdrawal taxes; FCL severance, withdrawal and termination taxes; the annual local aid payment; the annual resource aid payment to qualifying counties, invoicing for MFL yield, withdrawal, and closed acreage fee as well as FCL severance, withdrawal and termination taxes. We would also move the tables into the new database. Interactions with the accounting systems are also involved in this project, but the exact impacts of the STAR project are unknown at this point.

Other aspects that may be included are Cooperating Forester Management and Certified Plan Writer (CPW) Enrollment, and implementation of Stewardship Plan development all of which help gain efficiencies in the management of these programs.

In addition, an evaluation of the cost share programs' need for tracking and reporting would be included so foresters can track when cost sharing was used and when the work was completed so we can ensure the Foresters are aware of when landowner payments can be made.

Anticipated Total Cost: $750,000 - $800,000 (includes an estimate of contractor and staff time plus fringe) – there are some unknowns currently, so this is an estimate.

Resourcing: SEG

Potential Project Name: ***Wisconsin Forest Inventory and Reporting System (WisFIRS) Private Lands GIS***
Description: WisFIRS Private Lands Management is an application to assist in DNR management of privately-owned forest land (Managed Forest Law (MFL) and Forest Crop Law (FCL) Administration and Financials). The WisFIRS Private Lands Management system is currently used by foresters to store data collected in the field, create management plans, track cutting notices and completed practices (e.g. timber sales). Due to the importance of knowing where on the landscape practices are being done, geographic information systems (GIS) will be integrated throughout the system. This project would be enhancing WisFIRS Private Lands to include a GIS piece for the DNR and Consulting Foresters to have the capability to specifically delineate the managed area will allow DNR and private consulting foresters to be more efficient in the administration of private forest law programs. Other aspects will need to be built into the system to support those efforts, but a desired outcome would be to ensure we will be meeting statutory requirements by producing maps for the enrollment and management of these lands, having tools in place to ensure this data is maintained, as well as using the data to also provide more precise locational information to the public so they can avoid potential trespassing situations when entering the private tax law lands open for public recreation.
Anticipated Total Cost: $800,000-$970,000 (includes an estimate of contractor and staff time plus fringe).
Resourcing: SEG

IT Infrastructure Projects or Expenditures

No IT infrastructure projects have been identified.

Issues

DOA/DET Engagement with Agencies

While DNR has been supportive of DET's shared services, we feel that there has been insufficient investment made in soliciting agency feedback on existing services, and in gathering requirements for new services. When feedback mechanisms are provided, there is rarely acknowledgement or correlation to the resultant services. In addition, lack of a clear roadmap from DOA/DET impacts our ability to plan for future needs, including IT investments and workforce capacity. DOA/DET's improved focus in teis area is noted and appreciated.

Bandwidth

Although strides have been made in FY15, limited bandwidth remains an overwhelming need in our regions, affecting our ability to collaborate statewide, and to offer cost-effective centralized IT services. For example, many of our offices do not have sufficient bandwidth to support video training, including that for STAR.

Identity Management

Lack of interoperability between user identity authentication and management systems at DNR, DOA, and in the cloud create unnecessary overhead for every individual at DNR.

Cherwell Support

The Cherwell IT Service Management system is critical to DNR's vision of consolidated IT support with distributed resources. DOA/DET's lack of depth in supporting this important system is evident, and results in application risks and lengthy enhancement delays.

Procurement

Procurement of IT products and services, especially cloud-based services, remains a significant challenge under the current procurement rules and using the State's standard terms and conditions.

DNR Staffing

DNR is challenged to hire and retain highly qualified IT staff due to the competitive market for this talent, DNR's below-market salaries, and a limited ability to offer salary increases and other incentives.

Federal Funding

Unforeseen changes in Federal funding could have a detrimental impact on the ability to build and maintain applications supporting programmatic needs.

DNR's Mission

To PROTECT and enhance our natural resources:

our air, land and water;

our wildlife, fish and forests

and the ecosystems that sustain all life.

To PROVIDE a healthy, sustainable environment

and a full range of outdoor opportunities.

To ENSURE the right of all people

to use and enjoy these resources

in their work and leisure.

To WORK with people

to understand each other's views

and to carry out the public will.

And in this partnership

consider the future

and generations to follow.

This plan is submitted by the Wisconsin Department of Natural Resources (DNR). Preparation of this plan was coordinated by the DNR Bureau of Technology Services (BTS), with input from other DNR program application and data owners.

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