STATE WILDLIFE GRANT NUMBER:  T-60  D-1


NEED: This project is an “implementation grant” to be used to track, manage, assess and evaluate conservation activities for the State Wildlife Action Plan. One of the most critical elements required for evaluating successful implementation of State Wildlife Action Plans is to track progress in addressing action items and projects that benefit species in greatest conservation need. Since the creation and approval of the States’ Wildlife Action Plan, Illinois has been continually designing, developing and expanding its’ Information Technology (IT) systems and infrastructure that track on-the-ground implementation activities, species data, staff time, funding, and other critical information within a spatial framework.

The Illinois Department of Natural Resources (IDNR) – Office of Resource Conservation (ORC) creates more than 30 different types of land and water resource management plans within its’ various programs and Divisions. The Management Activity Tracking System (MATS) was originally conceived to develop and to track on-the-ground implementation activities identified within these various plans. However, the creation of the Illinois Wildlife Action Plan necessitated the development of a new strategy for a complete re-building of ORC’s existing IT systems because many were out-of-date and isolated. Therefore, the original scope of MATS was significantly expanded to include species data (e.g., population, abundance, and management activities), project management activities, fiscal tracking, and programmatic timekeeping functionality. MATS is designed to be constructed and deployed as part of twenty-one separate projects or modules. A complete listing of each MATS module, including a detailed system requirements and description, is available on the Illinois Fish and Wildlife Action Team SharePoint/ Project Management Office (PMO) site at: https://naturalresources.illinois.gov/ifawat/DNRPMO/default.aspx.

Of the twenty-one MATS modules, three modules are in production and/or have been completed as part of previous federally-supported State Wildlife Grants (SWG) or other state appropriations. Another three modules have initiated preliminary web-based interface development in SharePoint (see summary below):
<table>
<thead>
<tr>
<th>MATS Module</th>
<th>SWG Funding</th>
<th>Other State Appropriations</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned, Managed, and Leased Properties (OMLP)</td>
<td>Yes. (T-3-P-001)(T-2-P-001)(T-17-P-001)</td>
<td>Yes. (State FY 2009)</td>
<td>In production</td>
</tr>
<tr>
<td>Il Nature Preserves Commission (MANAGE MATS)</td>
<td>Yes. (T-3-P-001)</td>
<td>No.</td>
<td>Completed</td>
</tr>
<tr>
<td>Div. of Wildlife Habitat MATS</td>
<td>Yes. (T-15-P-001)</td>
<td>No.</td>
<td>In production</td>
</tr>
<tr>
<td>Federal Aid Programs</td>
<td>No.</td>
<td>Yes.</td>
<td>SharePoint only</td>
</tr>
<tr>
<td>Special Funds</td>
<td>No.</td>
<td>Yes.</td>
<td>SharePoint only</td>
</tr>
<tr>
<td>Fisheries/Impoundments Program</td>
<td>No.</td>
<td>Yes.</td>
<td>SharePoint only</td>
</tr>
</tbody>
</table>

Elements of this proposal build upon these previous projects (state and federally funded) and continue development of IT support mechanisms for State Wildlife Action Plan implementation through the following three projects:

1. **Infrastructure support**: This project includes support needed for SharePoint 2007 site design and ORC staff orientation to Project Management Methodology (PMM) within the existing Project Management Office (PMO). Microsoft SharePoint 2007 is a new, inter-active tool that has been used previously by ORC. Through these projects, it’s become apparent that future additions to the site jeopardize its functionality if a carefully planned foundation is not laid. Because the Statewide Streams Database (SSD; Job 2.4) and the Activity-Based Timekeeping Database (ABT; Job 3.2) requires SharePoint, careful site design is crucial. The second job in this project will provide staff the necessary orientation to PMM so they can effectively implement the PMO requirements of this grant. The PMO is a “toolkit” designed to prioritize selection of projects and to facilitate their completion in the most efficient way possible. Within the PMO, the PMM provides standard procedures and tools to all staff, thereby streamlining project execution. The ORC PMO will replace the older, dated System Design Methodology (SDM) implemented by IDNR Office of Administration a number of years ago and will serve as an IDNR pilot for establishing an entirely new over-sight structure. The pilot PMO structure will provide for close scrutiny and management of all aspects of the System Development Lifecycle. Orientation is needed so staff understand their roles and responsibilities with this grant.
2. **Statewide Streams Database**: Four important database components and analytical tools are needed specifically for aquatic species. The state recognizes that the aquatic components and database needs of the State Wildlife Action Plan are not as well supported or developed as the terrestrial side. These four components are all integral to the Statewide Streams Database (SSD) module of ORC MATS, which has been identified through a deliverable in T-15 as a high priority module for development. These database components are needed to support, to evaluate and to track implementation of action items contained in the State Wildlife Action Plan as part of both the Streams Campaign and the Land and Water Stewardship Campaign. A SSD conceptual design schema and preliminary design requirements have been documented, and are available on the SharePoint/Project Management site. This project will initiate the construction and deployment of SSD, consistent with adopted Project Management Methodologies, and development of assessment tools and database solutions specific to fisheries resources in Illinois streams.

3. **Activity-Based Timekeeping Database**
   Activity-based timekeeping (ABT) is a critical requirement for tracking time and expenses related to federal grants and reimbursements, including State Wildlife Grants (SWG). The current Programmatic Accounting System (PAS) utilizes antiquated technology and is restricted to a limited set of outputs through which information can be extracted. Data entry and processing involves extensive staff resources resulting in turnaround times for outputs that have significant time lags. In addition, the lack of database standardization has unnecessarily complicated Department timekeeping, which has resulted in over-use of existing programmatic codes, and compromised timekeeping data accuracy. PAS has been identified in both state and federal audit findings as needing improvements for the accountability for activity-based timekeeping. The Office of Resource Conservation (ORC) needs to take corrective steps to accurately account for activity-based time and expenses for purposes related to federal grants. The ABT database has also been identified through a deliverable in T-15 as a high priority module for development.
OBJECTIVE: Building on previous SWG funded projects, the general objective of this Grant Proposal is to continue expansion and development of ORC’s enhanced database systems necessary to support implementation of the State Wildlife Action Plan. The specific objectives, products and delivery dates for each Job in this proposal are as follows:

**Project 1: Infrastructure support needs**

Job 1.1: Requirements analysis and design recommendations for SharePoint 2007

**Products and Deliverable Date:** A detailed SharePoint implementation plan will be produced and the SharePoint portal design implemented and deployed. Password protected access will be provided to US Fish & Wildlife Service staff upon request. The delivery date is 1 January 2010.

Job 1.2: Orientation to Project Management Methodologies (PMM)

**Products and Deliverable Date:** A final Project Management Methodology (PMM) will be produced and adopted as an ORC policy. Products will also include three orientation sessions for ORC staff. A detailed report of session content, attendees, and evaluation of each session will be provided. The delivery date is 1 January 2010.

**Project 2: Statewide Streams Database**

Job 2.1: Fisheries database solution for streams

**Products and Deliverable Dates** A new, enhanced fisheries database, compliant with State of Illinois standards, will be produced in MS SQL. This will result in a complete replacement of the existing non-compliant Paradox system. The delivery is 1 January 2011.

Job 2.2: Index of Biotic Integrity calculation solution

**Products and Deliverable Dates** A new, “stand-alone” calculation program will be written and deployed for Illinois’ Index of Biotic Integrity (IBI). The delivery date is 30 June 2011.

Job 2.3: Project management support needs for SSD

**Products and Deliverable Dates** This job will provide an external, certified Project Management Professional (PMP) for the design, construction and deployment of the SSD MATS module. A detailed Project Management Plan that addresses all project developmental
processes for the SSD project (Initiating, Planning, Executing, Monitoring/Control and Closing) and all project management knowledge areas (Integration, Scope, Time, Cost Control, Quality, Human Resources, Communication, Risk Analysis, and Procurement) will be produced and implemented to ensure the project meets time, scope and budget requirements. The delivery date is 30 June 2012.

Job 2.4: Statewide Streams Database (SSD) application development

Products and Deliverable Dates: The new spatial SSD application module for MATS will be designed, developed and deployed. Password protected access will be provided to US Fish and Wildlife Service staff upon request. The delivery date is 30 June 2012.

Project 3: Activity-Based Timekeeping (ABT) Database

Job 3.1: Project management support needs for ABT database

Products and Deliverable Dates: This job will provide an external, certified Project Management Professional (PMP) for the design, construction and deployment of the ABT MATS module. A detailed Project Management Plan that addresses all project developmental processes for the ABT project (Initiating, Planning, Executing, Monitoring/Control and Closing) and all project management knowledge areas (Integration, Scope, Time, Cost Control, Quality, Human Resources, Communication, Risk Analysis, and Procurement) will be produced and implemented to ensure the project meets time, scope and budget requirements. The delivery date is 30 June 2012.

Job 3.2: Activity-Based Timekeeping (ABT) application development

Products and Deliverable Dates: The new spatial ABT application module for MATS will be designed, developed and deployed. Password protected access will be provided to US Fish and Wildlife Service staff upon request. The delivery date is 30 June 2012.
EXPECTED RESULTS AND BENEFITS:

**Project 1: Infrastructure Support Needs**

**Job 1.1: Requirements Analysis and Design Recommendations for SharePoint 2007**

The IDNR is implementing a SharePoint portal to replace the existing Intranet site. As a component of the new SharePoint portal, ORC will develop a sub-site as an IDNR pilot. The implementation of a Department-wide SharePoint portal requires careful planning, requirements gathering, needs analysis, and design in order to implement the correct architecture or “foundation” from which all other SharePoint functionality can be established. This job outlines and implements a design for ORC that will allow ORC to move forward with a successful SharePoint 2007 deployment.

A correct architectural design is essential to the effective use of SharePoint 2007 as the web-based interface for the various MATS modules, including SSD (Job 2.4), ABT (Job 3.2), Wildlife MATS module (T-15-P-001), MANAGE MATS for the INPC (T-3-P-001 and T-17-P-001) and OMLP (T-3-P-001, T-2-P-001 and T-17-P-001). Results and benefits of this job will provide:

- The critical architecture from which the SharePoint web-based interface for existing and planned MATS modules can operate,
- IT/web security functionality that cannot be provided through the existing IDNR intranet site,
- Document management and tracking functionality,
- Work process functionality.

**Job 1.2: Project Management Methodology Orientation**

This job provides ORC staff with a step by step overview and orientation to the Project Management Methodology (PMM) that is part of the ORC Project Management Office (PMO). ORC headquarters and field staff will be provided with meaningful and understandable information about the Project Management Methodologies (PMM). A clear understanding of this methodology will make staff more efficient and accountable when executing this grant. Specifically, the proposed orientation will allow ORC to:

- Move forward with analyzing existing business processes, and
- Develop in-house project management knowledge and subject matter experts.
Project 2: Statewide Fisheries Database

Job 2.1: Fisheries Database Solution

The fisheries database for Illinois is currently isolated, antiquated and non-compliant with State of Illinois database standards. The lack of fisheries data standards makes analysis of fisheries data on a statewide scale extremely problematic. This job will develop and implement a database solution that will result in a new, compliant and standardized database system for statewide fisheries data for Illinois. Upon completion of this job, the new database, along with several other streams-related database systems, will be incorporated into the MATS Statewide Stream Database module as part of Job 2.4 below.

IDNR’s computer hardware and operating systems are not compatible with the existing, antiquated fisheries database, and therefore, accessibility of fisheries data to ORC headquarters staff is at risk. In addition, many computers and operating systems in the field are outdated and utilize non-compliant software, putting at further risk, access to data if non-compliant software is removed. With staff shortages, the inability to replace headcount and a maturing work-force, existing database management business functions will be reviewed and revised in a way that takes advantage of new technologies while expending less manpower and maximizing limited fiscal resources.

Job 2.2: Index of Biotic Integrity (IBI) Calculation Solution Development

The IDNR ORC maintains and supports a process that calculates the Index of Biotic Integrity (IBI) as a means of measuring and communicating the overall “health” of a fish community in a specific size stream within a geographical area. The existing IBI calculation tool is written in an antiquated programming language and is not currently accessible by all staff; moreover, there is no available source code from which to make additional changes. The application is cumbersome to use and requires manual manipulation of output data to produce a meaningful, easy to use and understandable report. Further, the application depends on software that is not compliant with Illinois standards. This job will provide for the development of a new calculation solution for the State’s revised IBI currently not available to ORC staff that will work in conjunction with the new fisheries stream database developed as part of Job 2.1. With stand alone functionality, the calculation solution will be available with web access to a variety of external users, including universities, non governmental organizations, state and federal agencies, private consultants, watershed groups and other with interest in fisheries issues on streams as part of the State Wildlife Action Plan Streams Campaign.
Job 2.3: Project Management Support Needs for SSD

Project Management support will provide guidelines and the methodology by which to manage and track the development of the SSD MATS module described in Job 2.4. A project management methodology will greatly enhance the Watershed Protection Section’s ability to deliver these projects. The methodology addresses the “hows” of getting a project completed. The majority of work within the project management methodology is focused around the “planning” phase of the project. This job will provide a Project Management Professional (PMP) certified Project Manager that will:

- Provide mentoring and guidance to ORC project staff,
- Provide education on the role of project management,
- Maintain methodologies, templates, and tools necessary for this project within the existing SharePoint PMO site,
- Help ensure the MATS SSD module will be delivered on-time, within scope and budget,
- Align the MATS SSD module with all required command direction (e.g. Statutory requirements, State IT policies, CMS Governance, Executive Governance, Internal Audit requirements).

Job 2.4: Statewide Streams Database (SSD) Application Development

This job is a component module of the ORC Management Activity Tracking System (MATS) framework. The result of this job is to provide the Illinois Department of Natural Resources’ (IDNR), Office of Resource Conservation (ORC) with a Statewide Streams Database (SSD) that will manage fish, macroinvertebrate, mussel, and associated non-biological data (geology, climate, soil permeability, landcover, and groundwater potential) for Illinois streams statewide. The new database will handle both tabular and GIS (spatial) data critical to the analysis of streams and rivers throughout Illinois.

The scope of this database development work will follow standards set by CMS for database development and deployment. The database will be housed upon a Microsoft SQL Server and ESRI ArcServer platform and will utilize web-based “browser” interfaces to allow ORC staff to work from local offices or remote field locations depending on “wireless broadband” capabilities of individual staff.
This job will benefit the planning and management of “on-the-ground” conservation activities for the ORC throughout the state. Once developed, SSD will also encourage cross disciplinary discussion and cooperation between divisions and programs within ORC as well as between ORC and outside offices and private partners. The final grant report will include screen captures and or printed versions of the output for the various reports generated in the new MATS module. The final responsibility for management and maintenance of the system will be divided between the Watershed Protection Section GIS staff, and the IDNR IT staff. The Watershed Protection Section will oversee daily management, including data entry procedures used by ORC Divisions, quality control, and content/format changes. The IDNR IT staff will ensure adequate infrastructure support functions are maintained, including server administration, security, backup, etc. SSD must:

- Provide for time and money savings for ORC staff by providing a fast and accurate method for analyzing and tracking stream data.
- Contribute to increased coordination and cooperation between ORC programs and divisions.
- Provide for accurate and timely periodic updates to and from other state and federal databases for regional and national data integration.
- Provide integrated data and analysis capabilities to support several on-going resource management projects that will have technical, administrative and policy level impacts to a wide variety of state and federal programs.

### Project 3: Activity-Based Timekeeping Database Development

#### Job 3.1 Project management support needs for ABT database

Project Management support will provide guidelines and the methodology by which to manage and track the development of the ABT database module described in Job 3.2. A project management methodology will greatly enhance the ORC Operation Section’s ability to deliver Job 3.2. The methodology addresses the “hows” of getting a project completed. The majority of work within the project management methodology is focused around the “planning” phase of the project. This job will provide a Project Management Professional (PMP) certified Project Manager that will:
• Provide mentoring and guidance to ORC project staff,
• Provide education on the project management tools,
• Maintain methodologies, templates, and tools necessary for this project within the existing SharePoint PMO site,
• Help ensure the ABT database module will be delivered on-time, within scope and budget,
• Align the ABT database module with all required command direction (e.g. Statutory requirements, State IT policies, CMS Governance, Executive Governance, Internal Audit requirements).

Job 3.2 Activity-Based Timekeeping (ABT) application development

This job is a component module of the ORC Management Activity Tracking System (MATS) framework. The result of this job is to provide the Illinois Department of Natural Resources’ (IDNR), Office of Resource Conservation (ORC) with an Activity-Based Timekeeping (ABT) Database that will manage and track ORC staff time and expenses, specifically focusing on reimbursements for federal grants used to assist in the implementation of the State Wildlife Action Plan. The new database will handle tabular data critical to the maintenance and accurate tracking of time and expenses.

The scope of this database development work will follow standards set by CMS for database development and deployment. The database will be housed upon a Microsoft SQL Server and ESRI ArcServer platform (as needed) and will utilize web-based “browser” interfaces to allow ORC staff to work from local offices or remote field locations depending on “wireless broad-band” capabilities of individual staff.

This job will provide a database solution that addresses identified deficiencies in the federal Corrective Action Plan for activity-based timekeeping for federal grant and reimbursement purposes within the Office of Resource Conservation. Upon completion, this project will:

• Provide for accurate and timely activity-based timekeeping information.
• Provide integrated timekeeping data and analysis capabilities to support a wide variety of state and federal programs.
• Allow IDNR to maximize in-direct costs and matching funds for capturing available federal funds.
• Standardize existing procedures and timekeeping data, thereby avoiding the existing inaccuracies in activity-based timekeeping accounting that exists within the current system.
• Capitalize on new technologies while resulting in the expenditure of less manpower, thereby maximizing limited state fiscal resources.
APPROACH:

Project 1: Infrastructure Support Needs

Job 1.1: Requirements Analysis and Design Recommendations for SharePoint 2007
The approach to specific tasks for this job include:
  a). Review IDNR intranet portal design specifications with the Office of Administration in order to ensure continuity with the ORC SharePoint portal.
  b). Conduct a 2-4 hour SharePoint functionality workshop for ORC. The purpose of this workshop will be to demonstrate the different types of functionality and capabilities that SharePoint provides.
  c). Conduct a meeting with each of the ORC Divisions and Office level Sections to gain an understanding of their SharePoint needs. Document all requirements. Analyze the differences and determine how to most effectively address these differences in a way that allows a standard SharePoint template across ORC.
  d). Develop and implement a plan for full implementation of a SharePoint portal for the Office of Resource Conservation. This plan will provide the recommendations for implementation of a SharePoint portal including the site design and architecture with respect to the organizational structure, security, and utilization of workflows. This plan will be shared with the IDNR Office of Administration as a template for design for the Department-wide SharePoint 2007 portal.

Job 1.2: Project Management Methodology Orientation
To more efficiently deliver the objectives of this job, conference calls, webinars, and other tele-commuting tools and techniques will be used for ORC staff not located in the headquarters office. Three sessions will be provided to various ORC staff as follows:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Class Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project Management Methodologies Overview</td>
<td>3 hrs</td>
</tr>
<tr>
<td>The purpose of this overview is to provide all ORC staff with an overall understanding of the PMM to successfully complete project requirements.</td>
<td></td>
</tr>
<tr>
<td>2. PMM Implementation</td>
<td>6 hrs</td>
</tr>
<tr>
<td>The purpose of this session is to provide selected ORC staff with a further in-depth understanding of project management methodologies. These sessions give participants the knowledge of the different phases of the PMM as well as detailed information related to managing project requirements, schedules, budgets, and risks.</td>
<td></td>
</tr>
</tbody>
</table>
3. **Portfolio Management Overview**

In today’s budget uncertainty, it is critically important to work on activities providing the best return on investment. The purpose of this session is to provide selected ORC staff with a basic understanding of why and how IT tracking systems within ORC should be reviewed and prioritized according to strategic needs identified within the State Wildlife Action Plan. This orientation will be specifically targeted to ORC staff participating of Project Development Teams (PDTs) for the Statewide Streams Database (SSD, Job 2.4), Activity-Based Timekeeping Database (ABT, Job 3.2), and Wildlife MATS modules (T-15 grant).

## Project 2: Statewide Fisheries Database

### Job 2.1: Fisheries Database Solution

SharePoint will be used to develop a web-based, data entry mechanism to a State of Illinois compliant Microsoft SQL Server database for storing the statewide fisheries data. SQL Server Reporting Services will be used to generate the reports necessary for ORC staff (Division of Fisheries, Division of Natural Heritage, and Watershed Protection Section) to perform the necessary data analysis and outputs as a result of this database conversion. The approach for this job will include:

a). Gather the basic requirements of data collection, maintenance and support for fisheries data. Analyze the existing application data collection process and input forms. Gather basic requirements for the output reporting needs. Statewide data standards will then be implemented based upon need.

b). Develop a fisheries database application using SharePoint as the data input collection tool, SQL Server as the database storage location, and Reporting Services as the reporting and analysis functionality.

c). Provide mentoring and knowledge transfer for any new functionality utilized in the development of the fisheries database application to appropriate ORC field staff.

d). Provide oversight and coordination on consultant resources.

### Job 2.2: Index of Biotic Integrity (IBI) Calculation Solution Development

Specific tasks and approach for this job include:

a). Develop an IBI calculation tool that is consistent with IDNR and Central Management Services (CMS) technical development tool standards.
b). Convert existing data from old database file format to new SQL Server based format.
c). Verify the calculation tool functions according to defined and documented requirements.
d). Conduct a final verification and user testing of the tool and its functionality according to documented requirements.
e). Maintain all documentation in SharePoint PMO environment.
f). Coordinate with Central Management Services (CMS) to facilitate a quick and expeditious implementation effort.
g). Provide signature approval from DNR users to ensure utilization of the IBI calculation solution.

Job 2.3: Project Management Support Needs for SSD
A certified PMP Project Manager (PM) will layout a systematic approach to project development, design, and deployment. In addition, the PM will coordinate the required SSD application specialists for the duration of the project, including business analysts, requirements engineers, and system architects. The ORC Watershed Protection Section will be ultimately responsible for oversight of project management support and completion of the SSD module described in Job 2.4. Specific tasks and the approach for this job include:

a). Incorporate project management information into the SharePoint PMO web-site for effective and timely transfer of project information,
b). Mentor all ORC staff involved with the project on project management methods,
c). Guide and provide oversight to ORC project team members.

Job 2.4: Statewide Streams Database (SSD) Application Development
The success of the SSD module will be heavily reliant on complete cooperation between the involved divisions (Division of Natural Heritage, Division of Fisheries and ORC’s Watershed Protection Section) and / or programs, both Springfield staff and field staff. The construction and testing of the actual database and associated web-based interfaces will be the job of a contracted database development firm. The technical specifications and database requirements (i.e., scope of work) will be developed by the IDNR technical project leader in cooperation with other IDNR personnel, including IT staff. The vendor contracted to build the MATS module will follow the guidelines spelled out in the ORC “Project Management Office Documentation” (PMO) that has been developed by a contractor under the supervision of ORC. The PMO documentation requires sign-offs for the various stages of the design and development process by both the vendor and the IDNR project managers.
A detailed project plan will be developed prior to application development. A formal System Development Lifecycle will be followed to ensure that the SSD application is properly developed and tested against the requirements to ensure a quality product. Specific tasks and the approach for this job include:

a). Initiate job using the ORC Project Management Office (PMO) process, including:
   - Gather and document requirements,
   - Determine and document business needs that SSD will support,
   - Conduct a requirements analysis to define scope and business user goals,
   - Validate requirements to ensure they satisfy business and program needs.

b). Design a logical database structure.

c). Develop the web-based interfaces based upon business analysis.

d). Construct, test and deploy SSD module.

### Project 3: Activity-Based Timekeeping Database Development

#### Job 3.1 Project management support needs for ABT database

A certified PMP Project Manager (PM) will layout a systematic approach to project development, design, and deployment. In addition, the PM will coordinate the required ABT application specialists for the duration of the project, including business analysts, requirements engineers, and system architects. The ORC Operations Section will ultimately be responsible for oversight of project management support and completion of the ABT module described in Job 3.2. Specific tasks and the approach include:

a). Incorporate project management information into the SharePoint PMO web-site for effective and timely transfer of project information,
b). Mentor all ORC staff involved with the project on project management methods,
c). Guide and provide oversight to ORC project team members.

#### Job 3.2 Activity-Based Timekeeping (ABT) application development

The success of the ABT database module will be heavily reliant on complete cooperation between the all ORC Divisions and Sections (Division of Natural Heritage, Division of Fisheries, Division of Forestry, Division of Wildlife, Watershed Protection Section, Operations Section, and Program Support Section), including all staff located in Springfield headquarters and field office locations. The construction and testing of the actual database and associated web-based interfaces will be the job of a contracted database development firm. The technical specifications and
database requirements (i.e., scope of work) will be developed by the IDNR technical project leader in cooperation with other IDNR personnel, including IT staff. The vendor contracted to build the ABT database module will follow the guidelines spelled out in the ORC “Project Management Office Documentation” (PMO) that has been developed by a contractor under the supervision of ORC. The PMO documentation requires sign-offs for the various stages of the design and development process by both the vendor and the IDNR project managers.

A detailed project plan will be developed prior to application development. A formal System Development Lifecycle will be followed to ensure that the ABT database application is properly developed and tested against the requirements to ensure a quality product. Specific tasks and the approach for this job include:

a). Initiate job using the ORC Project Management Office (PMO) process, including:
- Gather and document requirements,
- Determine and document business needs that the ABT database will support,
- Conduct a requirements analysis to define scope and business user goals,
- Validate requirements to ensure they satisfy business and program needs.

b). Design a logical database structure.

c). Develop the web-based interfaces based upon business analysis.

d). Construct, test and deploy ABT database module.
## PROJECT SCHEDULE:

<table>
<thead>
<tr>
<th>PROJECT 1 – Infrastructure Support Needs</th>
<th>7/09 – 1/10</th>
<th>1/10-6/10</th>
<th>7/10-1/11</th>
<th>1/11-6/11</th>
<th>7/11-1/12</th>
<th>1/12-6/12</th>
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<tbody>
<tr>
<td>Job 1.1 – Requirements Analysis For SharePoint 2007</td>
<td>X</td>
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<td>Job 1.2 – Best Practices Implementation</td>
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<tr>
<td>PROJECT 2 – Statewide Fisheries Database</td>
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<td>Job 2.1 - Fisheries Database Solution</td>
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<td>Job 2.2 – IBI Calculation Solution Development</td>
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<td>Job 2.3 – Project Management Support Needs for SSD</td>
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<td>Job 2.4 – SSD Application Development</td>
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<tr>
<td>PROJECT 3 – Activity-Based Timekeeping Database</td>
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<tr>
<td>Job 3.1 - Project Management Support Needs for ABT database</td>
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<tr>
<td>Job 3.2 - Activity-Based Timekeeping (ABT) Application Development</td>
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<td>X</td>
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</tbody>
</table>

**RELATED GRANTS:** Elements of this proposal build upon previous grant projects and continues development of IT support mechanisms for tracking progress in the implementation of the State Wildlife Action Plan. Related SWG projects include:

- T-02-P-001 (Development of an Illinois Comprehensive Wildlife Conservation Plan and Supporting Information Systems)
- T-03-P-001 (State Wildlife Conservation Plan/Strategy Data Systems)
- T-15-P-001 (Office of Resource Conservation (ORC) Management Activities Tracking System (MATS) Phase II – Additional Modules)
- T-17-P-001 (Conservation Practice Mapping, Biotics 4 and Owned, Managed and Leased Properties, or OMLP)
ESTIMATED BUDGET COSTS:

Project #1

<table>
<thead>
<tr>
<th>Budget Categories</th>
<th>Federal Request</th>
<th>State Cost Share</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Travel</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>Supplies</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Contractual Services</td>
<td>$22,687.5</td>
<td>$0</td>
<td>$22,687.5</td>
</tr>
<tr>
<td>Equipment &gt;$5000</td>
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<td><strong>Total Project Costs</strong></td>
<td><strong>$22,687.5</strong></td>
<td><strong>$0</strong></td>
<td><strong>$22,687.5</strong></td>
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<tr>
<td>Percentages</td>
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<td>100%</td>
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Project #2

<table>
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<th>Budget Categories</th>
<th>Federal Request</th>
<th>State Cost Share</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
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<td>$159,840.00</td>
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<td>Travel</td>
<td>$0</td>
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<td>Supplies</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>Contractual Services</td>
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<td>$127,312.50</td>
<td>$454,625</td>
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<tr>
<td>Equipment &gt;$5000</td>
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<td>$0</td>
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<tr>
<td><strong>Total Project Costs</strong></td>
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<td><strong>$614,465</strong></td>
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<td>Percentages</td>
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<td>44%</td>
<td>6%</td>
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Project #3

<table>
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<tr>
<th>Budget Categories</th>
<th>Federal Request</th>
<th>State Cost Share</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
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<tr>
<td>Personnel</td>
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<td>$93,506.40</td>
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<td>Travel</td>
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<tr>
<td>Supplies</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Contractual Services</td>
<td>$234,000</td>
<td>$117,000</td>
<td>$351,000</td>
</tr>
<tr>
<td>Equipment &gt;$5000</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Project Costs</strong></td>
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<td><strong>$210,506.40</strong></td>
<td><strong>$468,000</strong></td>
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<td>Percentages</td>
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Combined Project #1, #2, and #3 Costs

| Total Costs             | $584,000         | $520,346.40      | $63,653.60 | $1,168,000 |
BUDGET JUSTIFICATION:

Project #1

*Contractual Services:* IDNR is requesting $22,687.5 (federal share) and is providing $22,687.5 in direct costs (cash). The source of IDNR direct costs is from state funds under FY’09 Operations Appropriation (041042220-1910-0600). The total contractual funds identified will be used to hire an independent contractor to implement the Infrastructure Support Needs project. Oversight of the independent contractor will be provided by the identified ORC Project Manager.

Project #2

*Personnel Services:* This request includes $159,840 of State Share direct costs provided through IDNR Watershed Protection Section (WPS) staff time with $40,160.00 indirect costs (20.08%). State Share direct costs represent the State of Illinois staff time needed to implement Jobs 2.1, 2.2, 2.3, and 2.4. These direct costs will be accounted for in the existing programmatic time code database and tracked monthly to ensure the accurate amount of direct costs are being obtained. An IDNR programmatic code will be requested upon final approval of this Grant Proposal.

*Contractual Services:* IDNR is requesting $327,312.50 (federal share) and is providing $127,312.5 in direct costs (cash). The source of IDNR direct costs is from state funds under FY ’09 Operations Appropriation (041-42220-1910-0600). The total contractual funds identified will be used to hire an independent contractor to implement the Database Development project. Oversight of the independent contractor will be provided by the identified ORC Project Manager.

Project #3

*Personnel Services:* This request includes $93,506.40 of State Share direct costs provided through IDNR ORC staff time with $23,493.60 indirect costs (20.08%). State Share direct costs represent the State of Illinois staff time needed to implement Jobs 3.1 and 3.2. These direct costs will be accounted for in the existing programmatic time code database and tracked monthly to ensure the accurate amount of direct costs are being obtained. An IDNR programmatic code will be requested upon final approval of this Grant Proposal.

*Contractual Services:* IDNR is requesting $234,000 (federal share) and is providing $117,000 in direct costs (cash). The source of IDNR direct costs is from state funds under FY ’09 CARA-Lite Re-Appropriation (041-42220-1900-0028). The total contractual funds identified will be used to hire an independent contractor to implement the ABT Database Development project. Oversight of the independent contractor will be provided by the identified ORC Project Manager.
PERSONNEL:
The following personnel from IDNR Office of Resource Conservation, One Natural Resources Way, Springfield, IL 62702 will manage this project.

Administrative oversight and project management:

Joel Cross
Head, Watershed Protection Section, ORC
Phone: (217) 785-8266
Email: joel.cross@illinois.gov

Technical management and implementation:

<table>
<thead>
<tr>
<th>Job</th>
<th>WPS Technical Staff and Leads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td><strong>Jim Renn, Lead</strong>: Joel Cross; Andrew Hulin; Ann Holtrop</td>
</tr>
<tr>
<td>1.2</td>
<td><strong>Joel Cross, Lead</strong>: Ann Holtrop; Jim Renn</td>
</tr>
<tr>
<td>2.1</td>
<td><strong>Ann Holtrop, Lead</strong>: Charlie Foor; Andrew Hulin; Joel Cross</td>
</tr>
<tr>
<td>2.2</td>
<td><strong>Ann Holtrop, Lead</strong>: Charlie Foor; Andrew Hulin; Joel Cross</td>
</tr>
<tr>
<td>2.3</td>
<td><strong>Joel Cross, Lead</strong>: Charlie Foor; Andrew Hulin; Ann Holtrop</td>
</tr>
<tr>
<td>2.4</td>
<td><strong>Joel Cross, Lead</strong>: Charlie Foor; Andrew Hulin; Ann Holtrop; Jim Renn</td>
</tr>
<tr>
<td>3.1</td>
<td><strong>Joel Cross, Lead</strong>: Dave Blatchford; Paul Vehlow</td>
</tr>
<tr>
<td>3.2</td>
<td><strong>Dave Blatchford, Lead</strong>: Joel Cross; Mike Conlin; ORC Division Chiefs</td>
</tr>
</tbody>
</table>

Ann Holtrop
Stream Ecologist, Watershed Protection Section, ORC
Phone: (217) 785-4325
Email: ann.holtrop@illinois.gov

Charlie Foor
Geographic Information Systems Specialist, Watershed Protection Section, ORC
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Email: charlie.foor@illinois.gov

Andrew Hulin
Geographic Information Systems Specialist, Watershed Protection Section, ORC
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Email: andrew.hulin@illinois.gov

Jim Renn
Wildlife Action Plan Coordinator, Watershed Protection Section, ORC
Phone: (217) 785-5907
Email: jim.renn@illinois.gov
Dave Blatchford  
Head, Administrative Services, Operations Section, ORC  
Phone: (217) 782-0073  
Email: dave.blatchford@illinois.gov

Paul Vehlow  
Head, Federal Aid Program Administration, Operations Section, ORC  
Phone: (217) 785-5922  
Email: paul.vehlow@illinois.gov

Additional staff involved with this project include, but are not limited to:

Steve Pallo  
Head, Division of Fisheries, ORC  
Phone: (217) 524-4163  
Email: steve.pallo@illinois.gov

Jim Mick  
Stream Program, Division of Fisheries, ORC  
Phone: (309) 543-3316  
Email: jim.mick@illinois.gov

Glen Kruse  
Head, Division of Natural Heritage, ORC  
Phone: (217) 785-8691  
Email: glen.kruse@illinois.gov

Bob Szafoni  
Natural Areas Program, Division of Natural Heritage, ORC  
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John Buhnerkempe  
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Mike Mason  
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Email: Jennifer.aherin@illinois.gov

Nancy Rogers
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Chris Hill
Systems and Licensing, Office of Administration
Phone: (217) 785-4994
Email: chris.hill@illinois.gov

Truman Scheller
Payroll and Expenditure Processing, Office of Administration
Phone: (217) 785- 8288
Email: Truman.scheller@illinois.gov

**LOCATION:** This project will be based in Springfield at the IDNR Headquarters and supports statewide efforts to:

- track implementation activities and actions identified in the State Wildlife Action Plan,
- manage biotic and abiotic data related to streams, and
- provide support for project management.