Office of the State Engineer-Interstate Stream Commission

New Mexico Water Rights Business Process Management

- Implementation Phase -
- Project Certification Committee –
  (April 18, 2012)

Renée Martínez (Chief Information Officer)
John Romero (Water Rights Allocation Program Manager)
Mercedes Ortega (IT Applications Manager)
Project Stakeholders

- **Agency Head**
  - Scott Verhines, P. E., State Engineer

- **Executive Sponsors**
  - John Romero, Water Resource Allocation Program Manager
  - Renée Martínez, Chief Information Officer

- **Project Stakeholders**
  - Water Rights Allocation Program (Specialists, Managers, Constituents)
The purpose of this project is to redesign and automate our water rights administration business process using business process management software (BPMS).

On a daily basis the Agency serves water right owners across the state of New Mexico by processing water right claims and related transactions (changes of ownership, permit applications, well log submittals, certificates of construction, proof of beneficial use, well meter readings).

Customer service and agency efficiency with respect to processing water rights transactions is inextricably tied to the performance of the Agency’s water rights processes and supporting information management systems.

<table>
<thead>
<tr>
<th>Start Date</th>
<th>April 1, 2012</th>
<th>Planned End Date</th>
<th>June 30, 2014</th>
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<tbody>
<tr>
<td>Amount Requested this Certification</td>
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## Project Appropriations

<table>
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<tr>
<th>SOURCE</th>
<th>AMOUNT</th>
<th>ASSOCIATED RESTRICTIONS</th>
<th>APPROVERS</th>
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</table>
What is BPMS?

- An integrated suite of software technologies that addresses business users' desire to see and manage work as it progresses across organizational boundaries
- Supports a full view of work by coordinating the interactions among people, systems and information, which are all equally important aspects of work
- Supports process modeling, design, development and execution in one package
- Combines several BPM-enabling technologies, such as business process modeling, business activity monitoring, business rule engines, portals, web services-based integration and information management
- A suite increases effectiveness tools through interoperability and an explicit approach to coordinating workflow, including human tasks, "systematized" tasks, policies and information flows
Agency Sustainability Challenge

DEMAND
- High Volume of Water Rights Claims (60,000 in FY11)
- Drought will Increase Volume (10%)
- High Rate of Regulation Changes
  - Surface Water
  - Ground Water
  - Domestic Wells
  - Active Water Right Management
- High Visibility of Water Right Decisions

SUPPLY
- Reduced Staffing (Business, IT) 25%+ (31 vacancies)
- Reduced Operating Budget (5%)
- Outdated and Semi-Automated Business Processes
- Outdated Application Technology

The Agency Must Do **Much More** with **Much Less**
Project Objectives

- Improve Constituent (Water Rights Owners, Courts, Legislators) Satisfaction With OSE Services.
  - Technical Objective: Provide self-service functions with intuitive, easy to learn and use, web-based user interfaces. Improve integrity and currency of information.

- Improve Business Agility, that is, to significantly (by 30% and greater) reduce the time and effort required to change the system to adapt to evolving business rules, regulations and priorities
  - Technical Objective: Quick process and rule reconfiguration with minimal downtime

- Improve Staff Productivity (by 20% or greater)
  - Technical Objective: Intuitive, easy to learn and use, web-based user interfaces. Automated workflow, business rules and exception handling.

- Increase Business Process Transparency and Performance Management
  - Technical Objective: Real-time workflow state reporting

- Reduce The Cost For System Maintenance and Future Development
  - Technical Objective: Shift IT workload from programmer to business analyst- resources. Maximize re-use of existing application assets. Adopt industry-standard infrastructure and operations procedures.
Project Planning & Status

- **Research, Consult, Select Approach (Completed December 2011)**
  The Agency completed a roadmap for change; evaluated RFI responses from three leading BPMS vendors, and completed a technology proof of concept using two of the BPMS solutions.

- **Select Solution (Completed in February 2012)**
  The Agency negotiated with two leading BPMS vendors to get the best pricing and terms for the BPMS software.

- **Start to Implement (Why we are here today)**
  The Agency seeks funding to acquire BPMS software (cloud software as a service option) and implementation services and start an iterative application re-development cycle, starting with our water rights admin. process.
Project Deliverables

Planning & Envisioning Phase
- Current State Business & Technology Assessment
- Future State Business & Technology Assessment
- Business & Technology Architecture Roadmap

Technology Selection
- Business Process Management Software RFI
- BPMS Proof of Concept
- Project Business Case
- Project-System Cost Model

Determine Delivery & Operations
- Business Process Management Software RFI
- BPMS Proof of Concept
- Project Business Case
- Project-System Cost Model
- Acquire Funding & Establish Agreements-Contracts

Domestic Water Rights Process Modeling, Design, Build, Test, Deploy (Release 1)
- Process & Application Requirements
- Application Design & Build
- Test Plan & Results
- User Training Plan & Materials
- Application In Production

Release 1 Close-Out
- Post Implementation Assessment
- User And External Logon License Subscriptions

Non-Domestic Water Rights Process Modeling, Design, Build, Test, Deploy (Release 2)
- Process & Application Requirements
- Application Design & Build
- Test Plan & Results
- User Training Plan & Materials
- Application In Production

Release 2 Close-Out
- Post Implementation Assessment

Non-Domestic Water Rights Process Modeling, Design, Build, Test, Deploy (Release 3)
- Process & Application Requirements
- Application Design, Application Build
- Test Plan & Results
- User Training Plan & Materials
- Application In Production

Release 3 Close-Out
- Post Implementation Assessment

Target – June 2013

Complete – June 2011

Complete – Dec. 2011

Complete – Feb 2012

Target – Dec. 2013

Target – June 2014

Complete – June 2011

Complete – Dec. 2011

Complete – Feb 2012

Target – Dec. 2013

Target – June 2014

Complete – Feb 2012

Complete – Dec. 2011

Complete – June 2011

Complete – June 2014

Complete – June 2011
<table>
<thead>
<tr>
<th>Milestone</th>
<th>Target Date</th>
<th>Budget</th>
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<tbody>
<tr>
<td>Certify Project</td>
<td>4/30/2012</td>
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<tr>
<td>Purchase User and External Logon Licenses</td>
<td>6/30/2012</td>
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<tr>
<td>Conduct Release 1 Implementation Plan Engagement</td>
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<td>IV&amp;V Initial Project Assessment</td>
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<td>Conduct Training (5 Day, On-Site)</td>
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<td>Specify Process &amp; Application Requirements (Release 1)</td>
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<td>Design Application (Release 1)</td>
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<tr>
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<td>Specify Process &amp; Application Requirements (Release 2)</td>
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<td>Test, User Training and Deploy Application (Release 1)</td>
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<td>IV&amp;V Post Release 1 Assessment</td>
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<td>Design, Build, Test, Deploy Release 2</td>
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<td><strong>Total</strong></td>
<td><strong>$716,250</strong></td>
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Project Governance

OSE-ISC IT Governance Committee Meeting
Role: Project Investment, Project Portfolio Management

Project Steering Committee
Role: Project Planning & Oversight

Project Team
Role: Project Execution

Project Manager
(Agency, Contractor)

Application Developers
(Process Model, Workflow, User Interface, Business Rules, System Integration)

BPMS Vendor
(Implementation Guidance, Training, Knowledge Transfer)

IT Infrastructure Experts
(Cloud Platform Network and System Integration)

Program Staff
(Process Model, Workflow, User Interface, Business Rules, System Integration)
Technical Architecture

- **Data Center**
  - Development and production environments provided by vendor as a cloud software as a service platform (costs are included in software subscriptions pricing). Service level agreements govern availability, scalability and performance.

- **Telecommunications (Network Bandwidth)**
  - Agency must consider redundant internet connections

- **Enterprise Applications**
  - Integration with State Email System and Agency Legacy Systems

- **Business Continuity & Disaster Recovery**
  - Provided by vendor

- **Security**
  - User and data access privileges will be specific to user and role
Questions