



Agency IT Plan

Fiscal Years 2012-2017

May 2012

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EXECUTIVE SUMMARY

The Department of Environmental Quality (DEQ) administers most of Montana's environmental regulatory, remediation, pollution prevention, and energy conservation laws through the application of statutory and rulemaking authority, permit responsibilities, information collection and management, training and certification, technical and financial assistance, and enforcement. The mission of DEQ is to protect, sustain, and improve a clean and healthful environment to benefit present and future generations.

To accomplish this mission, the Director has adopted three primary goals:

1. *Increase the efficiency of internal and external Department processes to enhance quality, timeliness, and/or volume of work produced.*
2. *Improve relations with Department customers, including the general public and the regulated community.*
3. *Enhance recruitment and retention of Department staff.*

The department's strategic IT focus has been to provide efficient and effective services within our budget constraints to all our customers. The Office of Information Technology (OIT) provides resources, tools, and services that directly support the agency's mission and the department's goals through the application of effective information technology to the procedures and practices of the department.

This IT Strategic Plan represents an effort to thoroughly review our strategic direction from the point of view of the various programs that make up DEQ. We expended significant time working as a management team to develop goals and objectives that more directly reflect our business-driven direction relative to how we provide information technology services to our customers inside and outside of DEQ.

The department's IT Strategic goals listed in section 4 are:

- Continue to Provide a Stable IT Environment
- Improve Customer Service/Partnership
- Effectively Manage Resources
- Use IT to Enhance DEQ Operational Efficiency
- Make Informed Decisions

The subsequent objectives that support these goals follow general themes of accountability, reliability, security, and efficiency.

DEQ's strategic initiatives listed in Section 5 include replacement or upgrades of several department legacy database applications, security planning, and applying resources in response to the increased need related to oil exploration and extraction in eastern Montana.

Overall, the 2012-2017 DEQ IT Strategic Plan is an evolution to a better representative plan reflecting the needs of the department. It will be more useful as a planning tool and will help guide the department in future IT decisions.

SECTION 1: AGENCY ADMINISTRATIVE INFORMATION

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IT Inventory

The IT inventory database located at <http://mine.mt.gov/enterpriseitinventory> was or will be updated on <Date> As required by MCA 2-17-524(3)(c) the plan will be updated by June 30th, 2012.

SECTION 2: AGENCY IT MISSION



The Office of Information Technology (OIT) provides quality, cost-effective support for our customers in achieving the DEQ mission of protecting, sustaining, and improving a clean and healthful environment to benefit present and future generations. The OIT vision is to exceed our customers' expectations through the timely delivery of high quality, cost beneficial tools and services that facilitate each customer's success.

SECTION 3: AGENCY REQUIRED PROGRAMS

Information Security Management (ISM) Program General Description

In previous versions of this plan, the Department has stated that it was not able to be in compliance with state policy regarding information security management programs stating in part:

“The Department has determined that reallocating limited IT resources is not a viable option. Further, obtaining additional resources in the near future is unlikely given the current economic situation. As such, the Department has not proposed an initiative to come into compliance with the Statewide Information Security Policy. Should additional resources become available, the Department will propose such an initiative.”

DEQ has worked toward getting resources in place to enable compliance. We are currently optimistic that we will be able to begin the process of building an Information Security Management Program that will bring us into compliance.

Continuity of Operations (COOP) Capability Program General Description

On August 11th, 2009 the Department of Environmental Quality joined with the Department of Administration *Continuity Services* for the development of our agency’s Continuity of Operations Capabilities, which will provide the plans and structure to facilitate response and recovery capabilities to ensure the continued performance of the State Essential Functions of Government. This program involves two Blocks of focus; the first is to complete the Business Continuity Plans (BCP) involving two phases, the second Block works on the specific business processes or activity plans such as Emergency Action Plans (EAP), Information System Contingency Plan (ISCP), Communications Plans, Incident Management Plans, and more. We are in the process of completing step 3 of phase 1 of 2 BCP phases and expect full completion of both Blocks by December 31st, 2013. This program is not a standalone process in that information which is identified and recorded under this structure can and often exists in the Records Management Program and associates with Information Security Management Program requirements.

Integration of these three programs is critical to the confidentiality, integrity, and availability of information, which is associated with each program.

SECTION 4: AGENCY IT PLAN – GOALS & OBJECTIVES

Goal Number 1:

IT Goal 1 Stable IT Environment

Description: DEQ will work to maintain a stable and reliable IT environment for the benefit of our staff and customers.

Benefits: Helping promote efficiency and innovation in day-to-day work activities

Supports: State IT Goal 4 – Enhance the reliability and Security of the State’s Information Systems.

Supporting Objective/Action

Objective 1-1 99% uptime for Server environment (excluding maintenance) supported by DEQ staff.

Description:

- Reliable IT infrastructure is an important part of providing good service to our customers inside and outside DEQ. We will develop a process and method to provide our customers information regarding server availability (up-time) on each physical and virtual server that we directly manage.

Anticipated risks:

- Unknown SMDC reliability at this time.
- Telecommunications infrastructure managed by SITSD
- Implementing a new network environment (Novell to Microsoft)

Anticipated time of completion: FYE 2014 to establish a process

Success Factor: Process implemented and reports to our Governance Board

Supporting Objective/Action

Objective 1-2 Security Planning

Description:

- Development of a comprehensive Security Plan reflecting the needs and requirements of MCA and State policy.

Benefits:

- Improved customer awareness though education and training. Increased information security for department information

Anticipated risks:

- DEQ staff acceptance.
- Resource availability

Anticipated time of completion: FYE 2017

Success Factor: Fully implemented security plan.

Supporting Objective/Action

Objective 1-3 Implement a schedule for maintenance of DEQ supported network hardware and software.

Description:

- Regularly scheduled maintenance to allow customers more notice of when maintenance is expected.

Benefits:

- Less impact to users
- Better availability of systems to users and IT staff
- More efficient use of IT resources

Anticipated risk:

- Not having enough time to perform maintenance in planned timeframe.
- An emergent maintenance activity outside the planned timeframe.

Anticipated time of completion: FYE 2013

Success Factor:

- An implemented maintenance schedule.
- Performed at least one maintenance activity according to schedule.

Supporting Objective/Action

Objective 1-4 Hardware and Software Inventory Management

Description:

- The department is required to maintain an inventory of hardware for purposes of replacement, surplus and disposal practices. Software license management requires OIT to inventory software purchased and used.

Benefits:

- Reduced risk of audits from software companies.
- Better compliance reporting
- Improved license management resulting in more efficient use of budgeted resources.

Anticipated risk:

- Additional expense due to over utilization of existing licenses.
- Available funding.

Anticipated time of completion: December 2013

Success Factor:

- Real-time reporting of inventory information.

Goal Number 2:

IT Goal 2 Improve Customer Service/Partnerships

Description: Improve customer service through partnership development between all programs in the department.

Benefits:

- Improve communications, customer outcomes, and productivity.

Supports: State IT Goal 1 – Achieve maximum value of Information Technology through the active management of Information Technology

Supporting Objective/Action

Objective 2-1 Explore use of new technology where appropriate

Description:

- Optimize technologies that will assist business(s) better serve customers within and external to DEQ

Benefits:

- Increase productivity while lowering costs compared to traditional tools

Anticipated risk:

- Abandon technologies that not fully mature.
- Longer support times due to a not fully realized product
- Opportunity cost exploring new technology

Anticipated time of completion: Ongoing

Success Factor:

- Realized benefits from new technologies

Supporting Objective/Action

Objective 2-2 Expand availability of Help Desk information.

Description:

- Provide transparency and communications with customer/partners

Benefits:

- Improve transparency and communications with customer/partners

Anticipated risk:

- Information isn't available in real-time
- Inaccurate or incomplete data in Help Desk tool

Anticipated time of completion: FYE 2014

Success Factor:

- Customers/Partners have real-time access to their Help Desk work orders.

Supporting Objective/Action

Objective 2-3 Implement new Help Desk system/added features

Description:

- Improve usefulness of data within the Help Desk system

Benefits:

- Real-time data entry via web-based entry (technicians are not limited to data entry at their desk.)
- Improved inventory control

Anticipated risk:

- Information is not available in real-time
- Inaccurate or incomplete data in Help Desk tool

Anticipated time of completion: FYE 2014

Success Factor:

- Fully implemented Help Desk Solution
- Real-time data entry and reports

Goal Number 3:

IT Goal 3 Effective Resource Management

Description: Effective management optimizes resources (people, hardware, software, funding, etc.) within all divisions of the agency.

Benefits:

- Proper alignment of resources in relation to agency’s priorities
- Improve relationship(s) with customers/partners

Supports: State IT Goal 5 – Develop and implement an Information Technology Governance structure for delivery of expected benefits.

Supporting Objective/Action

Objective 3-1 Continue IT Governance Board

Description:

- Optimizing the information technology resources within the agency

Benefits:

- Focus on agency’s common goals and objectives.
- Agency IT products and services are business driven.

Anticipated risk:

- Lack of participation by board members
- Decisions made in a timely manner

Anticipated time of completion: Ongoing

Success Factor:

- IT Governance Board continues to have regularly schedule meetings.

Supporting Objective/Action

Objective 3-2 Supporting Existing Systems

Description:

- Supporting legacy systems requires resources within all divisions of the agency
- Businesses are not always able to update or implement new systems

Benefits:

- Institutional knowledge of current systems decreases the amount of support time
- Existing systems continue to function as defined per businesses processes/requirements

Anticipated risk:

- Changes to business processes require major changes to systems
- Legacy tools become obsolete

- Lack of resources hampers the availability to support legacy systems

Anticipated time of completion: Ongoing

Success Factor:

- Existing systems continue to support business processes/requirements

Supporting Objective/Action

Objective 3-3 Staff Development and Retention

Description:

- Provide a career which allows staff to be successful in their chosen profession
- Skill development, career path, and a quality work environment

Benefits:

- Staff continues to meet support expectations from customers/partners
- Staff remains challenged and continue to feel essential

Anticipated risk:

- Unable to compete with pay from other potential employers
- Budget limitations reduce ability to provide training and pay opportunities

Anticipated time of completion: Ongoing

Success Factor:

- 100% of staff attend at least one training opportunity per biennium

Supporting Objective/Action

Objective 3-4 Record Information Management (RIM)

Description:

- Meet requirements for managing records in accordance with Title 2, Chapter 6, Part 2, MCA

Benefits:

- Ability to have quick access to needed documentation
- Maintain the integrity, access, and privacy of records

Anticipated risk:

- Lack of staff availability to maintain required records retention

Anticipated time of completion: Ongoing

Success Factor:

- Meet requirements pertaining to RIM policies and statues

Supporting Objective/Action

Objective 3-5 Geospatial Information Systems education and outreach

Description:

- Inform staff of the availability and effective use of GIS tools

Benefits:

- Continue to foster opportunities as interest and awareness of GIS solutions are recognized by DEQ

- programs.
- Solutions typically result in greater efficiency, improve communications, and better decision making.

Anticipated risk:

- Inaccurate or incomplete data due to latitude/longitude vs. polygonal and liner location values.
- Lack of funding

Anticipated time of completion: FYE 2015

Success Factor:

- Increase the staffing use of GIS services

Supporting Objective/Action

Objective 3-6 Upgrade/Convert Legacy Systems

Description:

- Systems unable to meet changes in business processes
- Tools no-longer supported by manufacture

Benefits:

- IT solutions continue to meet business requirements
- New features typically increase security while increasing businesses ability to analyze data.

Anticipated risk:

- User acceptance
- Quality of data compromised during migration
- New errors or flaws not isolated during testing

Anticipated time of completion: Ongoing

Success Factor:

- Effective project planning using measurements to validate systems
- All systems operating in supported platforms

Goal Number 4:

IT Goal 4 Utilize IT to enhance DEQ operational efficiency

Description:

- Continue to adapt IT solutions to assist business partners' requests to collaborate, analyze, automate and improve operational efficiencies.

Benefits:

- Efficient and effective use of DEQ resources
- Increased DEQ customer/partner satisfaction

Supports: State IT Goal 2 – Aggressively use technology to extend capabilities that enhance, improve, and streamline service delivery.

Supporting Objective/Action

Objective 4-1 Continue to adapt to changes in the EPA's electronic Data Exchange standard

Description:

- The ability to continue reporting quality data using efficient tools

Benefits:

- Remain in compliance with the EPA’s Data Exchange standards
- Improve data quality
- Reduces overall reporting burden

Anticipated risk:

- Frequent changes to the standard
- Opportunity cost

Anticipated time of completion: Ongoing

Success Factor:

- Continue submitting environmental data electronically to the EPA

Supporting Objective/Action

Objective 4-2 Promote eGovernment Solutions

Description:

- Increasing demand of external customers to interact electronically with DEQ

Benefits:

- Improving customer services to stakeholders (i.e. public, local government and other State agencies).

Anticipated risk:

- Stakeholder’s confidence with electronic transactions
- Budget constraints

Anticipated time of completion: Ongoing

Success Factor:

- Continue the expansion of effective and efficient eGovernment services
- Implement a minimum of one eGovernment service per year

Supporting Objective/Action

Objective 4-3 Utilize Document Management System (DMS)

Description:

- Increasing demand from DEQ customers to have public documents readily available

Benefits:

- Faster and more flexible document retrieval
- Reduce physical storage

Anticipated risk:

- Time investment for conversion from paper to electronic
- Alignment with business processes/requirements

- Budget availability

Anticipated time of completion: FYE 2017

Success Factor:

- Thoroughly documented Needs Assessment including Statement of Need, Key Requirements, Overview of Potential Solutions, and Alternatives.
- Decision(s) based on Needs Assessment

Supporting Objective/Action

Objective 4-4 eReporting

Description:

- Increasing demand to report electronically to internal and external customer/partner

Benefits:

- Conserves time, money and storage necessary vs. traditional paper based filing systems

Anticipated risk:

- If required, Electronic Signature, Notary, and Professional.Engineer (P.E.) standards
- Customer/partner acceptance

Anticipated time of completion: FYE 2016

Success Factor:

- Improved reporting for customers/stakeholders

Supporting Objective/Action

Objective 4-5 eSignature/Notary/P.E. standards

Description:

- Meet legal requirements (State & Federal) statutes and policies related to document submittals

Benefits:

- Reliable and quicker processing, automatically detect records that have been tampered and reduction in errors.

Anticipated risk:

- eNotary standards per Montana Secretary of State direction
- Authentication, Adoption and Compliance

Anticipated time of completion: FYE 2017

Success Factor:

- Thoroughly documented Needs Assessment including Statement of Need, Key Requirements, Overview of Potential Solutions, and Alternatives.
- Decision(s) based on Needs Assessment

Goal Number 5:

IT Goal 5 Informed Decision Making

Description: A decision based on relevant information about the advantages, disadvantages, and other possible courses of action.

Benefits:

- Better decision(s) making that is not based on assumptions or reaction.

Supports: State IT Goal 5 – Develop and implement an Information Technology Governance structure for delivery of expected benefits

Supporting Objective/Action

Objective 5-1 Data Quality

Description:

- Timely, accurate, and usable information within IT systems.

Benefits:

- More informed decision making
- Improved customer service
- More effective operations

Anticipated risk:

- Stakeholder buy in
- Resource availability to clean and maintain data

Anticipated time of completion: FYE 2016

Success Factor:

- Define “Data Quality”
- Develop an appropriate Data Quality Plan and processes to achieve Data Quality

Supporting Objective/Action

Objective 5-2 Data Control (possibly merge with Data Quality)

Description:

- Ability to collect and control the flow of data in IT systems

Benefits:

- Create rules and standards allowing for data quality

Anticipated risk:

- Stakeholder buy in
- Resource availability to create data rules and standards

Anticipated time of completion: FYE 2016

Success Factor:

- Define “Data Control”

Supporting Objective/Action

Objective 5-3 Data Stewardship

Description:

- Reestablish a recognized group responsible for maintaining data standards

Benefits:

- Consistent use of data management resources
- Easy mapping of data between computer systems and exchange documents
- Removes duplication/overlapping data

Anticipated risk:

- Stewardship definitions are undefined or do not evolve with the agency
- Organizational commitment and follow through
- Lack of data transparency or audit-ability if not realized

Anticipated time of completion: FYE 2016

Success Factor:

- Recognize data as a vital asset
- Creation, implementation, and continuation of a Data Stewardship function

Supporting Objective/Action

Objective 5-4 Data Standards

Description:

- ? Possibility include in Data Stewardship

Benefits:

- Improved data quality, consistency and efficiency of data collection
- Increased data compatibility and reduced data redundancy

Anticipated risk:

- Assumption that all data has the same associated value or risks

Anticipated time of completion: FYE 2016

Success Factor:

- Senior Management support and participation
- Business driven, support and participation

Supporting Objective/Action

Objective 5-5 Objective Data

Description:

- Ability to report data in an impartial method

Benefits:

- Decisions based on data that is measured quantitatively or qualitatively, on facts

Anticipated risk:

- Inability to define quantitative or qualitative of data

Anticipated time of completion: FYE 2016

Success Factor:

- Define objective data
- Build into data quality plan

SECTION 5: IT INITIATIVES (FY2012 – FY 2017)

Initiative 1 Remediation Information Management System (RIMS)

Description: Replace the current hazardous waste and remediation system (UST-FITS and EISI) using updated State standard technology.

EPP Number (if applicable)

Initiative 2 Information Security Planning

Description: The department will develop a comprehensive information security plan.

EPP Number (if applicable)

Initiative 3 Environmental Protection Agency 2012 Exchange Network Grant

Description: The department will complete the Air Quality System (AQS) and Assessment TMDL Tracking and Implementation System (ATTAINS) data flows.

EPP Number (if applicable)

SECTION 6: ENTERPRISE ALIGNMENT



Communities of Interest Participation

- Government Services
- Public Safety
- Human Resources
- Environmental
- Education
- Economic
- Cultural Affairs
- Finance

SECTION 7: PLANNED AGENCY IT EXPENDITURES

<u>Expense Category</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>
Personal Services	3,020,242	2,996,083	3,113,450	3,160,151	3,207,556	3,255,670
Operating Expenses	2,536,153	2,490,395	2,589,090	2,640,752	2,664,324	2,717,549
Initiatives	0	0	0	0	0	0
Other expenditures	175,000	8,173	10,000	10,000	10,000	10,000
Totals	5,731,395	5,494,651	5,712,540	5,810,903	5,881,880	5,983,219

- Personal Services and Operating Expenses were inflated 1.5% per year for 2014, 2015, 2016, and 2017.
- These expenses now include IT Personal Services and IT Operating Expenses from other programs outside the Central Management Program that were not included in the last strategic plan DEQ submitted in 2010.
- No IT Initiatives have been entered, as these have not been fleshed out as of this date.

