



Idaho Department
of Environmental Quality

Strategic Plan

for

Fiscal Years 2010 - 2013



A Vision for the Future

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Table of Contents

Message from the Director.....	v
Introduction.....	1
Mission.....	1
Vision.....	1
Purpose and Structure of the Strategic Plan.....	2
Agency Goals, Objectives, and Strategies.....	3
Air Quality Goal: Airshed Management.....	4
Objective 1: Community Involvement and the NAAQS	
Objective 2: Controlling Pollution from Stationary Sources	
Objective 3: Compliance with Permits and Regulations	
Objective 4: Crop Residue Burning	
Objective 5: Compliance with the NAAQS	
Waste Management and Remediation Goal 1: Prevention of Contamination.....	8
Objective: Minimizing the Release of Contaminants	
Waste Management and Remediation Goal 2: Management and Remediation of Waste.....	9
Objective 1: Assessment and Remediation of Contaminated Sites	
Objective 2: Prevention and Control of Contamination from Mines	
Objective 3: Long-term Mining Cleanups	
Idaho National Laboratory Goal: Protect Human Health and the Environment.....	14
Objective 1: INL Monitoring and Public Information	
Objective 2: Remediation of Contaminated Sites at the INL	
Water Quality Goal 1: Protect and Restore Surface and Ground Water Quality.....	16
Objective 1: Compliance with Water Quality Standards and Support of Beneficial Uses	
Objective 2: Reviews, Guidance, and Plans	
Objective 3: Pollution Reduction Actions	
Water Quality Goal 2: Drinking Water Protection.....	20
Objective 1: Safe and Reliable Drinking Water	
Objective 2: Protection of Drinking Water Sources	
Objective 3: Funding of Protection and Improvements	
Emergency Preparedness and Response Goal: Maintain Readiness and Respond to Emergencies.....	24
Objective 1: Emergency Planning and Preparedness	
Objective 2: Emergency Response	
Environmental Education and Outreach Goal: Empower Citizens to Help Meet DEQ Goals.....	26
Objective 1: Environment and Public Health Awareness	
Objective 2: Pollution Prevention	
Objective 3: Leadership by Example	
Performance Accountability.....	29

List of Figures

Figure 1. DEQ Organizational Chart..... 2
Table 2. DEQ Regional Offices..... 3

List of Tables

Table 1. DEQ Performance Commitments for FY2010..... 30
Table 2. Emerging Issues and Opportunities for 2010-2013..... 31

Message from the Director

This may prove to be the most challenging year the Department of Environmental Quality (DEQ) has faced since I first became director in 2004. The effects of the troubled economy are being seen and felt at the national, state, local, and personal levels.

While we have had to take some difficult yet necessary steps to address these financial challenges, new opportunities also have been created that will help bolster our state's economy and our agency's capacity to provide essential services for Idaho citizens and businesses. I have seen the political resolve of state leaders and the personal resolve of DEQ employees to make and support the hard decisions that will affect the way the agency does business in fiscal year (FY) 2010. I anticipate this same resolve will position us to handle the challenges of the future as well.

The commitments and focus of this strategic plan for carrying out the agency's human health and environmental protection mission reflect the balance of difficult budget reductions and the timely addition of funding from the federal American Recovery and Reinvestment Act of 2009, better known as the economic "stimulus funding."

Addressing Budgetary Reductions

The DEQ state general fund budget for FY2010 has been reduced from 2009 by 20%. This has resulted in the elimination of certain agency programs and functions, reduction or redistribution of others, and a delay in hiring when positions become vacant. Examples of programs and functions affected include:

- elimination of the agency's Planning and Special Projects Division
- suspension of the Beneficial Use Reconnaissance surface water quality monitoring program and the Pharmaceutical Take-Back Pilot Project for one year
- elimination of funding support for the GemStars pollution prevention recognition program

We have also made across-the-board reductions in general operating expenses, reduced support for various



Toni Hardesty

advisory groups and commissions, and severely curtailed outside contracting for water quality trend monitoring and special projects.

Budget reduction decisions were made with a priority on minimizing impacts to services for citizens and businesses and maintaining the integrity of our core workforce. DEQ will continue to provide a high level of customer service and responsiveness, even as we inform our customers of services we are no longer able to provide.

Employing Stimulus Funds

On a positive note, DEQ will be able to increase or accelerate services in specific areas as a result of receiving approximately \$12.5 million in federal stimulus funding in FY2010. We will pass dollars on to communities and the private sector to:

- accelerate cleanup of metals-contaminated yards in north Idaho
- clean up additional leaking underground storage tank sites across the state
- fund retrofitting of more diesel school buses to burn cleaner and reduce tail pipe emissions
- loan more money for drinking water and wastewater infrastructure projects
- conduct several high-priority water quality projects

It is possible DEQ may receive up to \$82 million in federal stimulus funds that will be passed on to communities over the next three years. DEQ has instituted additional oversight and reporting processes to meet the much higher level of accountability required in accepting the federal stimulus funding.

Looking Ahead

Another positive note was approval of funding by the legislature to begin implementing the Coeur d'Alene Lake Management Plan. DEQ and the Coeur d'Alene Tribe reached agreement on this plan after three previous attempts spanning seven years failed. Successful implementation of this plan will prevent the U.S. Environmental Protection Agency (EPA) from taking

additional action using its Superfund authority. This was the only DEQ-sponsored special project put forward and approved for the FY2010 budget, affirming the importance of state, tribal, and local leadership for protecting water quality in Coeur d'Alene Lake.

In FY2010, our strategy for fulfilling the agency mission of protecting human health and the environment will be to act within our conservative budget with a focus on core services and mandated functions while remaining watchful of and engaged in emerging issues and opportunities. As

we implement difficult and necessary budget decisions, we will do so in a manner that maintains our capacity to protect public health and the environment and provide essential services to Idaho businesses and citizens.

DEQ will continue efforts to streamline business processes to gain additional efficiencies, which has become even more critical in light of our reduced work force. In this way, we will be positioned to face the new challenges and opportunities that will come with the return of a more vibrant economy.

Introduction

DEQ's Mission

To protect human health and preserve the quality of Idaho's air, land, and water for use and enjoyment today and in the future.

The Idaho Department of Environmental Quality (DEQ) was established by the Environmental Protection and Health Act, Chapter 1, Title 39, of the Idaho Code, to protect human health and the environment.

As the state's environmental regulatory agency, DEQ is responsible for implementing and enforcing delegated federal programs under the Clean Air, Clean Water, Safe Drinking Water, and the Resource Conservation and Recovery Act, as well as many state environmental laws and rules. This regulatory responsibility covers a broad range of activities to ensure Idaho's air, water, and land, and the health of our citizens are protected from the adverse impacts of pollution.

Overall, our primary activities involve monitoring, permitting, conducting inspections, performing remediation, and providing oversight and technical assistance.

- Environmental monitoring is performed to assess conditions and ensure health-based standards are met.

- Permits are issued to facilities that manage wastes or release pollutants in order to limit the amounts to safe levels.
- Inspections of pollution sources and response to complaints are performed to ensure compliance with environmental regulations and standards.
- When necessary, enforcement action is taken.
- Oversight can include many different projects such as cleanups, pollution reduction, and drinking water and wastewater infrastructure improvements.
- Finally, assistance is provided through outreach and education to facilitate compliance with environmental requirements.

DEQ works closely and collaboratively with a wide range of public and private partners, including federal and state agencies; the Board of Environmental Quality; city, county, and tribal governments; businesses; community organizations; and our citizens. These partnerships are critical to accomplishing our environmental and human health protection mission.

Our Vision

DEQ envisions a future for the citizens of Idaho where the quality of life is enhanced by the quality of the environment. In partnership with communities and businesses, we will assess, sustain, preserve, and enhance the quality of the environment while recognizing the need for maintaining the economic vitality of the state.

Purpose and Structure of the Strategic Plan

Idaho statute requires each state agency to develop a strategic plan that is the foundation for establishing performance commitments and assessing progress toward achieving agency goals (Idaho Code 67-1903). Plans are based on the state fiscal year (July 1 through June 30), cover a four-year horizon into the future, including the year in which they are developed, and are updated annually.

The purpose of the strategic plan is to provide planning and performance information to the legislature, which oversees and assesses performance, taking into account the statutory authority granted to the agency and the agency's appropriated annual budget.

The FY2010 strategic plan has been designed to mirror DEQ's organizational structure (Figure 1). The agency headquarters in Boise is organized into divisions that focus on developing and administering programs and policies.

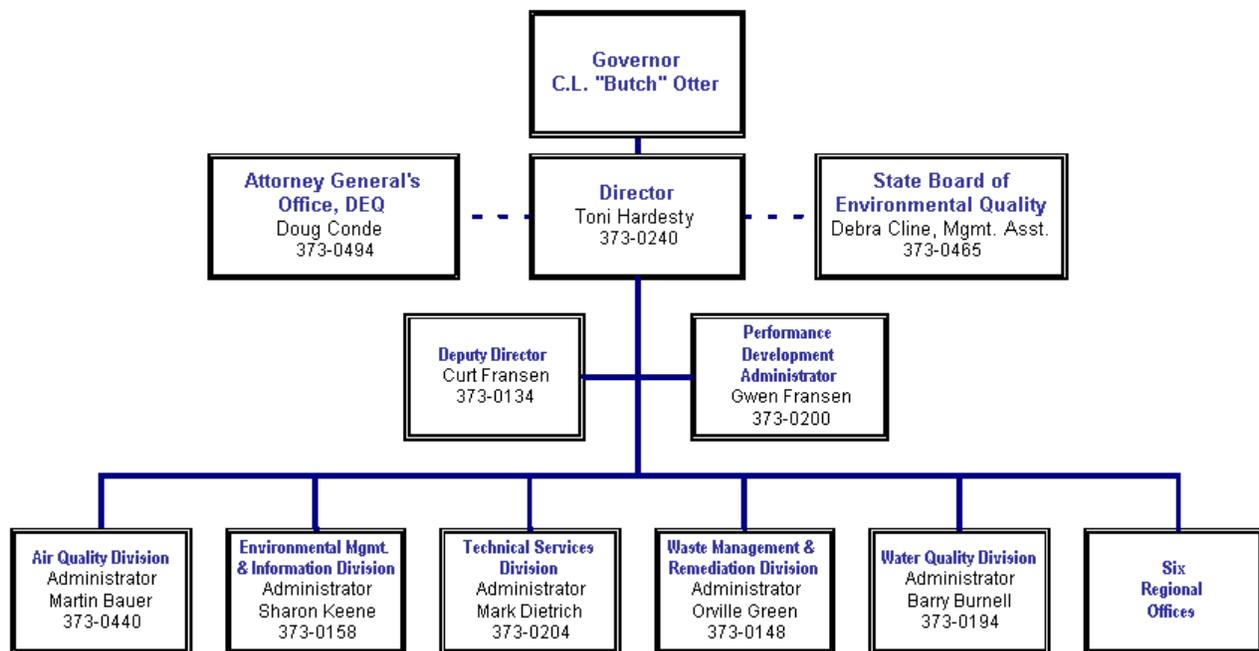


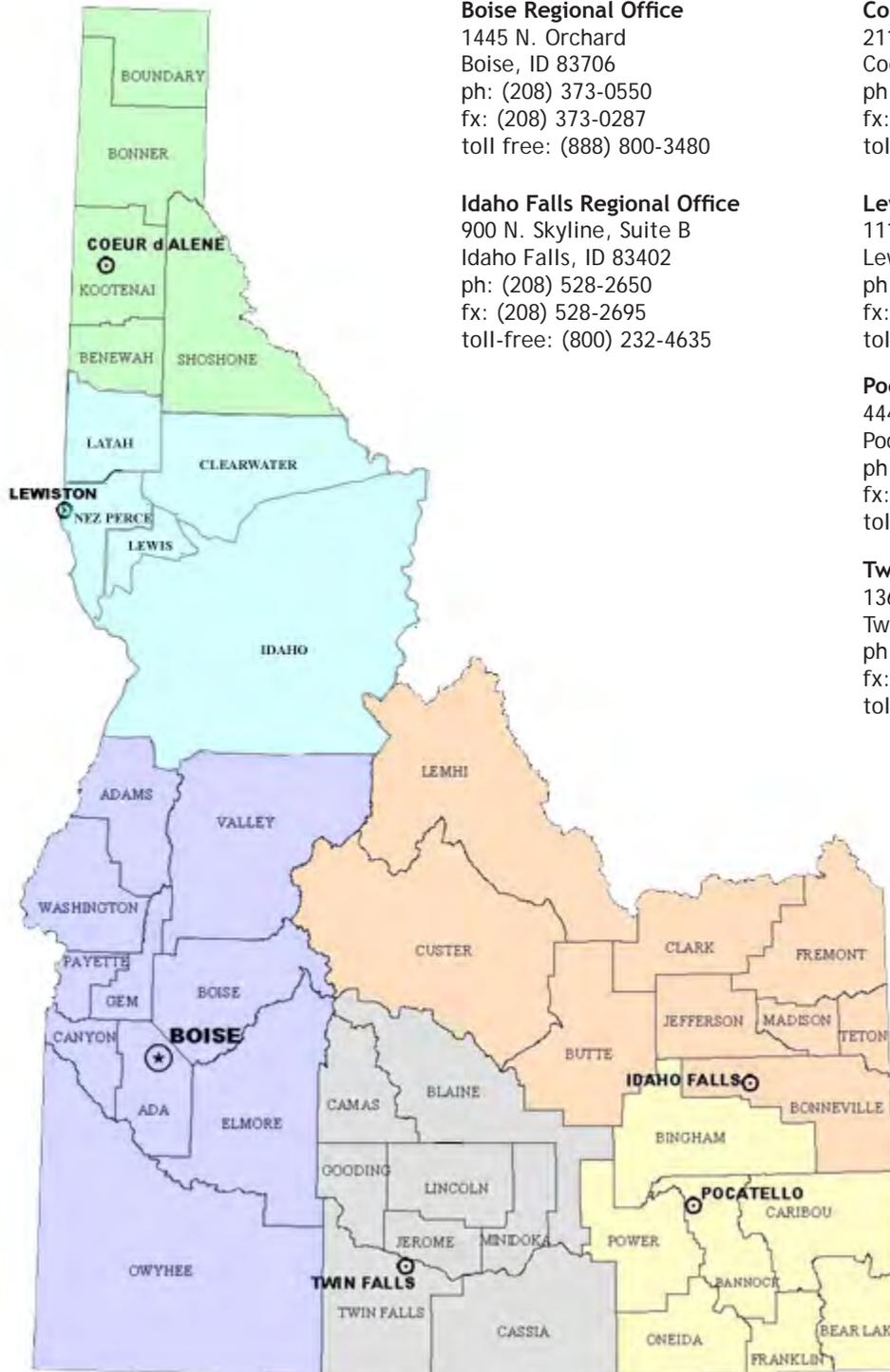
Figure 1: DEQ Organizational Chart

Goals, objectives, and strategies are identified in the plan for each programmatic division: Air Quality, Waste Management and Remediation, Water Quality, and Environmental Management and Information.

- The **goals** describe the broad environmental and/or human health conditions the agency is trying to achieve.
- These are followed by **objectives**, which are the incremental steps that will be taken to achieve each goal.
- **Strategies**, which are the specific actions necessary to achieve the objectives, follow.

The day-to-day, on-the-ground services of the agency are provided locally by six regional offices (Figure 2). The regions are charged with implementing programs and policies and perform many similar ongoing functions and

services. Individual regions may, however, face challenges that are unique to their specific geographic areas. These regional initiatives are identified in the strategic plan, consistent with corresponding goals and objectives.



Boise Regional Office
 1445 N. Orchard
 Boise, ID 83706
 ph: (208) 373-0550
 fx: (208) 373-0287
 toll free: (888) 800-3480

Idaho Falls Regional Office
 900 N. Skyline, Suite B
 Idaho Falls, ID 83402
 ph: (208) 528-2650
 fx: (208) 528-2695
 toll-free: (800) 232-4635

Coeur d'Alene Regional Office
 2110 Ironwood Pkwy.
 Coeur d'Alene, ID 83814
 ph: (208) 769-1422
 fx: (208) 769-1404
 toll free: (877) 370-0017

Lewiston Regional Office
 1118 "F" Street
 Lewiston, ID 83501
 ph: (208) 799-4370
 fx: (208) 799-3451
 toll free: (877) 541-3304

Pocatello Regional Office
 444 Hospital Way, #300
 Pocatello, ID 83201
 ph: (208) 236-6160
 fx: (208) 236-6168
 toll free: (888) 655-6160

Twin Falls Regional Office
 1363 Fillmore St.
 Twin Falls, ID 83301
 ph: (208) 736-2190
 fx: (208) 736-2194
 toll free: (800) 270-1663

Figure 2: DEQ Regional Offices

Agency Goals, Objectives, and Strategies

Air Quality Goal

Manage air quality in Idaho airsheds to ensure compliance with National Ambient Air Quality Standards.

National Ambient Air Quality Standards (NAAQS) are federal standards established by the U.S. Environmental Protection Agency (EPA) that all states are required to meet. Standards have been established for seven pollutants (known as criteria pollutants): nitrogen dioxide, carbon monoxide, ozone, sulfur dioxide, lead, and two sizes of particulate matter (PM₁₀ and PM_{2.5}, 10 microns and 2.5 microns in diameter).

These numeric standards establish the health-based thresholds below which DEQ strives to control air pollution in the various airsheds throughout Idaho. An **airshed** is defined as a volume of air that has similar characteristics and is separated from other volumes of air by weather patterns and topography. An airshed is therefore mostly confined to a specific and definable geographic area.

EPA requires all states to monitor ambient air quality for the seven criteria pollutants. DEQ maintains and operates a comprehensive statewide air quality monitoring network in selected cities to track compliance with the NAAQS and to provide information on the effectiveness of various actions taken to control air pollution and protect public health. The overriding agency goal for air quality is to meet and maintain compliance with the NAAQS. If the NAAQS are exceeded in a geographic area, EPA has responsibility to designate these geographic areas as “nonattainment,” and DEQ is responsible for developing plans for controlling pollution to meet the NAAQS.

DEQ is committed to working with local communities to meet these national standards and to developing the best state and local solutions for controlling pollution and protecting air quality. To meet this goal, the Air Quality Division has five objectives, described below.

Objective 1. Work with communities proactively and voluntarily to protect public health from air pollution and meet the NAAQS.

DEQ uses an “airshed management” approach in working with communities to protect public health from the impacts of air pollution. Airshed management is based on active citizen involvement in a collaborative process for charting the future and the necessary actions to avoid violations of air quality standards.

This approach is based on:

- a) collection and understanding of good scientific data
- b) community involvement in establishing a vision for local air quality and goals for the future
- c) community selection and implementation of strategies to address threats to air quality

Strategies for working with communities to prevent violations of NAAQS:

- Identify areas at risk for exceeding NAAQS by evaluating ambient air monitoring data and utilizing air quality models to predict conditions.
- Develop and implement air pollution control strategies for maintaining or reducing ambient concentrations of air pollutants.
- Evaluate effectiveness of control strategies to maintain or reduce air pollutants using predictive air quality models.
- Compile comprehensive inventories of pollutant sources and their emissions to use with air quality models and to support airshed management activities.

Air Quality Performance Measures

- ✓ In FY2010, complete the Cache Valley Nonattainment Plan and submit to EPA for approval.
- ✓ In FY2010, complete the Sandpoint Limited Maintenance Plan and submit to EPA for approval.
- ✓ In FY2010, complete renewals of the Treasure Valley CO and PM₁₀ Maintenance Plans and submit to EPA for approval.
- ✓ In FY2010, complete Idaho's Regional Haze Plan and submit to EPA for approval.

Objective 2. Issue and modify pollution control permits to ensure NAAQS are met in Idaho airsheds.

DEQ issues air quality permits that can be facility-specific or for categories of industrial activities. Facility-specific permits are issued for construction, modification, and operation of stationary pollution sources to control the emissions of pollutants into the atmosphere. Permit limits, monitoring requirements, and operational requirements are specified to ensure increases in emissions will not cause or contribute to violations of air quality standards. In some instances, general permits for a specific category of industrial activity, such as aggregate processing operations, are also issued.

Strategies for controlling air pollution from stationary pollution sources:

- Perform stationary source modeling to ensure permits contain limits necessary for controlling pollution to meet the NAAQS.
- Issue construction permits within improved timeframes (99 days, on average).
- Develop general permits for selected industrial source categories such as hot-mix asphalt plants, concrete batch plants, and surface coating operations.

Air Quality Performance Measure

- ✓ In FY2010, issue air quality permits to construct in 99 days, on average. (This is a benchmark performance measure; see the *Performance Accountability* section.)

Objective 3. Ensure air pollution sources in airsheds are in compliance with permit conditions and regulatory requirements.

Once permits are issued, it is important to make sure facilities comply with their provisions. DEQ conducts several types of inspections to ensure regulatory requirements and permit conditions are met. Routine compliance inspections, technical assistance inspections, and complaint response inspections are all performed to promote compliance with applicable requirements.

Strategies to ensure compliance with air quality permits and regulations:

- Inspect air pollution sources to verify compliance with permits and regulations, and when necessary, take enforcement actions in a consistent and timely manner.
- Provide outreach and technical assistance to help facilities comply with permits and regulatory requirements.

Air Quality Performance Measure

- ✓ In FY2010, conduct 114 inspections of stationary air pollution sources.

Objective 4. Protect public health from the impacts of crop residue burning.

An historic agreement was reached in 2008 that allows farmers to burn crop residue from fields, under strict limitations designed to ensure public health is protected from the impacts of smoke. The agreement was negotiated among DEQ, the Idaho State Department of Agriculture, Safe Air for Everyone (SAFE), and the agricultural stakeholders (growers).

The principles of the agreement are to:

- 1) protect human health, especially among sensitive populations
- 2) maintain burning as a tool for growers
- 3) conduct burning using good techniques and under optimal atmospheric conditions
- 4) make burning-related information readily available to the public.

A crop residue burning (CRB) program was designed and enacted into law (Idaho Code §39-114), followed by promulgation of rules (IDAPA 58.01.01), approved by EPA, and initially implemented for the fall 2008 burn season.

Strategies for protecting public health from the impacts of CRB:

- Hire and train field coordinators to carry out provisions of the new rules.
- Make daily burn decisions by considering weather, field, and safety factors.
- Provide growers with training in proper burning techniques.
- Maintain appropriate records of daily burning activities.
- Make field burning information available to the public in a timely and easy-to-understand manner.
- Increase education and outreach activities for growers in southern Idaho.
- Complete an annual program summary report for the CRB Advisory Committee.

Air Quality Performance Measure

- ✓ **In FY2010, implement the CRB program without lowering the Air Quality Index category on 100% of the burn days.**

Objective 5. Maintain the statewide air monitoring network to determine compliance with the NAAQS, to assess the progress of pollution control efforts, and to reconcile the accuracy of mathematical air quality models.

Monitoring for ambient air quality conditions and modeling to predict air quality impacts are required under the federal Clean Air Act. The use of these tools, in conjunction with emission inventory information, gives DEQ the ability to assess compliance with the NAAQS, to forecast future compliance, and to assess the effectiveness of specific measures to control emissions, reduce levels of pollution, or both.

DEQ reports air quality conditions to the public daily for pollutants of concern (such as ozone, particulates, carbon monoxide, sulfur dioxide, and nitrogen dioxide) using an Air Quality Index in selected cities throughout Idaho. The Air Quality Index considers actual monitoring data and

the NAAQS, which are health-based, and is reported on a scale of good, moderate, unhealthy for sensitive groups, unhealthy, very unhealthy, and hazardous. The index provides the public a tool to gauge the severity of pollution and potential health effects. DEQ also provides advice on precautionary measures to minimize exposure and reduce air pollution.

Strategies for assessing compliance with the NAAQS:

- Maintain a statewide network of meteorological monitoring stations and provide staff access to “real-time” pollutant and meteorological data for modeling, air quality forecasting, and other air quality management decisions.

- Evaluate airsheds annually for compliance with the NAAQS and submit recommendations to EPA for redesignations and reclassifications.
- Maintain air quality wildfire response capabilities.
- Make air monitoring and meteorological data available to the public and stakeholders for permit applications, crop residue burning, and other uses.
- Report air quality information to the public daily and inform the public of actions to help reduce air pollution and protect public health.

Air Quality Performance Measure

- ✓ **In FY2010, achieve Air Quality Index levels in the “good” or “moderate” category for 98% of the days. (This is a benchmark performance measure; see the *Performance Accountability* section.)**

Emerging Issues and Opportunities in Air Quality

School Bus Emissions Reduction Program. As part of the American Recovery and Reinvestment Act of 2009 (ARRA), DEQ anticipates receiving \$1.7 million to be used to reduce emissions from school buses with diesel engines. The emissions control technology on most Idaho school buses is at a level equivalent to pre-1970 automobiles. This money will be used to retrofit buses with new technology that will reduce tail pipe emissions. The School Bus Emissions Reduction Program is voluntary, and districts that choose to participate will have one year to complete the work.

Biomass for energy production. Biomass is any plant material or animal waste used to produce energy. The potential for increased use of biomass, while providing an alternative source of energy, could have a significant impact on local airsheds. The additional emissions of particulate matter from facilities producing energy with biomass could put more areas at risk for impaired air quality, should these facilities materialize. DEQ will need to work closely with communities in siting and permitting these facilities.

Forest health and air quality. Agencies responsible for forest management have received 2009 ARRA funding to increase efforts to reduce hazard fuels. Hazard fuels are the buildup of vegetative biomass that has resulted from the historic practice of wildfire suppression, thus increasing the potential (hazard) for future wildfires. While hazard fuels are a critical forest health issue, reducing them by slash and ecosystem burning can result in unintended air quality impacts by increasing particulate matter emissions. These practices will require careful management in urban-rural interface areas.



Waste Management and Remediation Goal 1

Through proper waste and product management, prevent and protect soil and water from contamination resulting from solid and hazardous waste, petroleum products, and mining-related activities.

DEQ is responsible for monitoring and controlling the generation, treatment, storage, and disposal of wastes, and for regulating the management of petroleum products in underground storage tanks in Idaho. When contaminants are released into the environment, DEQ is also responsible for responding to the release and ensuring proper cleanup actions are taken to protect human health and the environment.

Several kinds of wastes and products that DEQ regulates have the potential to pose risks to human health and the environment, if not handled correctly.

Solid waste is a broad term that includes garbage, refuse, sludges, or other discarded material. It also includes discarded liquids and containerized gases. In general, DEQ's solid waste program deals with municipal and non-municipal solid waste at transfer stations and certain composting operations and in landfills. While the term "solid waste" technically includes hazardous and mining waste, DEQ has specific programs to address these wastes.

Hazardous wastes are wastes with properties that make the waste dangerous or potentially harmful to human health or the environment. In regulatory terms, a hazardous waste is either a "listed" waste (a waste that appears on one of four federal hazardous waste lists due to its potential inherent dangers) or a waste that exhibits at least one of four characteristics: ignitability, corrosivity, reactivity, or toxicity.

Mining wastes are solid or hazardous wastes that are associated with mining operations. Special regulations in Idaho govern mining operations that use cyanide.

Petroleum products are not wastes. However, they can present the potential to leak and become waste when stored in underground storage tanks with their associated piping systems, or if the tanks are not properly installed, operated, and inspected.

Overall, DEQ's waste management and radiation activities focus on preventing the release of contaminants to the environment and ensuring cleanup of contamination, once it is identified.

Objective. Minimize the threat of releases of hazardous, solid, and mining wastes and petroleum products to the environment.

DEQ issues permits and other approvals, conducts inspections, and provides training and compliance assistance to facilities that generate, dispose of, treat, or store wastes to ensure that those wastes do not adversely impact the environment or pose a public health risk. Petroleum products and hazardous wastes contained in underground storage tanks are regulated to prevent and detect leaks.

Strategies for minimizing the release of contaminants:

- Update state regulations to ensure consistency and compliance with state and federal law and to address directives from the Board of Environmental Quality.
- Issue siting licenses for new or expanded commercial solid waste landfills or commercial facilities that treat, store, or dispose of hazardous waste.

- Issue and enforce permits for hazardous waste facilities, municipal and non-municipal solid waste management facilities, and cyanide mining operations.
- Inspect facilities that manage solid or hazardous waste, store petroleum products or hazardous waste in underground storage tanks, or conduct mining operations using cyanide.
- Issue inspection reports and, when necessary, initiate enforcement actions upon regulated facilities in a consistent and timely manner.
- Ensure that solid waste and hazardous waste facilities meet applicable financial assurance requirements.
- Issue certifications or permits for closure and post-closure of solid waste and hazardous waste facilities.
- Provide site-specific training to owners, operators, and employees on safe and compliant operation of underground storage tank systems.
- Develop and maintain an underground storage tank database available to the public via the Internet, detailing the status of all regulated petroleum underground storage tank systems in Idaho.
- Provide technical and compliance assistance to regulated facilities.

Waste and Remedation Performance Measures

- ✓ **In FY2010, conduct at least 139 inspections of facilities that manage or generate hazardous waste.**
- ✓ **In FY2010, complete all time-critical or scheduled hazardous waste permits and reviews within established timeframes. (This is a benchmark performance measure; see the *Performance Accountability* section.)**
- ✓ **By the end of FY2012, provide site-specific training on equipment and applicable regulations for 100% of the 1,210 facilities in Idaho that have registered petroleum underground storage tank systems.**

Waste Management and Remediation Goal 2

Protect human health and the environment through proper waste management, mitigation, and remediation of contaminated areas.

DEQ learns about contaminated land or water from facility inspections, site investigations, complaints, or emergency response activities. The contamination can be the result of a variety of activities such as improper practices at existing facilities, accidental spills, or leaks from underground storage tank systems. Information is also often obtained about suspected contamination due to abandoned mines, rural airfields that have served as bases for aerial spraying, old landfills, illegal dumps, and abandoned industrial facilities.

DEQ oversees the investigation and remediation of sites that have been or are suspected to have been contaminated by metals, chemicals, petroleum, or other waste products. DEQ also maintains a database inventory of contaminated sites that are identified. To meet this goal, the Waste Division has three objectives, described below.

Objective 1. Assess and remediate contaminated sites.

When environmental contamination is discovered, the site must be assessed to determine what contaminants are present, the concentrations, and the pathways that exist for contaminants to affect human health or the surrounding environment. Once assessed, the risk to the public and the environment is determined, and appropriate cleanup activities are initiated. Contamination is removed or controlled to ensure human health and the environment are protected for current and future land uses.

Strategies for assessing and remediating contaminated sites:

- Assess contaminated sites and determine the threat to human health and the environment using risk-based targets to establish site cleanup goals.
- Provide ongoing oversight for long-term cleanup sites such as the Burlington Northern Refueling Depot, Broadway Cleaners, Deming, and LD McFarland.
- Fund and conduct environmental assessments of “Brownfield” sites, which are vacant or underutilized properties where redevelopment or reuse is complicated by actual or perceived environmental contamination. These sites have the unique characteristic of high redevelopment potential and community value.
- Assist eligible entities in applying for federal grants to clean up contaminated Brownfield sites.
- Provide oversight for nine Community Reinvestment Pilot Sites (Brownfields) in progress. This pilot program was funded by the legislature to provide partial reimbursement to 10 private or nonprofit entities for completing DEQ-approved cleanups of pilot Brownfields sites. Upon completion of the cleanup, DEQ issues the pilot participant a rebate equal to 70% of the eligible cost, up to a maximum of \$150,000 per pilot site.
- Work with willing responsible parties to manage or abate risks from contamination through DEQ’s Voluntary Cleanup Program, which was created by the Idaho Land Remediation Act. As an alternative to enforcement action, a party may enter into a voluntary agreement with DEQ to clean up contaminated property to DEQ standards. Once the property is cleaned up, DEQ may provide the party a covenant not to sue.
- Initiate enforcement action, when necessary, by issuing the responsible party a notice of violation, consistent with the Hazardous Waste Management Act or Environmental Protection and Health Act. After issuing a notice of violation, DEQ will seek to alleviate the existing threat and may pursue penalties for violations of state law, as well as seek cost recovery.
- Issue an emergency declaration when there is an imminent and substantial threat to human health or the environment and no responsible party can be identified. This declaration allows DEQ to use emergency response funding to hire remediation specialists to clean up the site. Emergency response funds are drawn from penalties imposed on responsible parties who have violated the Hazardous Waste Management Act.
- Assist local governments and the public by maintaining and providing access to the database inventory of contaminated sites in Idaho.

Waste and Remedation Performance Measures

- ✓ **In FY2010, remediate 20 leaking underground storage tank sites for safe reuse.**
- ✓ **In FY2010, oversee completion of 10 Brownfield site assessments. (This is a benchmark performance measure; see the *Performance Accountability* section.)**
- ✓ **In FY2010, continue oversight of 9 Community Reinvestment Pilot sites in the Voluntary Cleanup Program and collect economic impact data on sites that receive state rebates.**

Objective 2. Complete risk assessments and determine necessary action to prevent and control the release of past mining contamination to the environment.

More than 8,500 inactive and abandoned mines, mineral locations, and mineral discoveries are found in Idaho. DEQ offers assistance to private owners of these properties to help evaluate and manage human health and ecological risks on their properties.

At the owner's request, DEQ will assess privately owned mine sites as part of the Preliminary Assessment Program. Priority is given to areas where multiple sites, ownerships, and/or claims can be assessed in a "watershed" scope to maximize efficiencies in staff field time. Consideration is also given to areas with high potential for human health and ecological impacts and high potential for future development and reuse.

The completion of a preliminary assessment can result in three potential conclusions:

- 1) request for additional information to fully understand site conditions
- 2) recommendations for voluntary site remediation or use of other cleanup or clean water authorities
- 3) a determination that no further action is necessary

Since the inception of this program, DEQ has worked with property owners to conduct approximately 325 mine site assessments.

Strategy to prevent and control contamination from mining:

- Work with state and federal land management agencies to identify, assess, and prioritize potentially contaminated mine sites and with property owners to determine remediation options.

Waste and Remediation Performance Measure

- ✓ **In FY2010, work with landowners to complete problem assessments and implement measures that will result in 20 mine sites getting no further action determinations.**

Objective 3. Implement major long-term cleanup actions for historic releases of mining-related contamination to the environment.

DEQ is working with EPA and other federal, state, tribal, and local agencies and stakeholders to implement two major mining cleanup projects. These projects are at opposite ends of the state—one in the phosphate mining area of southeast Idaho and the other in the Silver Valley of the Idaho Panhandle.

Selenium Contamination in Southeast Idaho. In 1996, isolated livestock deaths associated with excessive selenium uptake in the vicinity of historic phosphate mines in southeast Idaho prompted concerns over potential human health and ecological effects from past mining operations. In response to these concerns, primary mine operators in the region formed the Idaho Mining Association (IMA) Selenium Committee to investigate and address mining-related environmental and public health issues associated with past operations. Similarly, an Interagency/Phosphate Industry Selenium Working Group

(SeWG), consisting of voluntary participants from federal, state, and tribal agencies, as well as other stakeholder groups, was established to collaborate on these efforts.

Through the voluntary efforts of the IMA Selenium Committee and SeWG participants, investigators were able to confirm the release of selenium and other related metals in localized areas. Existing data indicate selenium contamination is currently focused on approximately 75 square miles of active and historic mine lease areas within the approximate 2,500 square mile resource area.

For the past several years, DEQ has been working with private industry, federal and support agencies, and special interest groups to remediate several selenium contamination areas. DEQ has made considerable progress in completing assessments and cleanup of sites that are under state leadership and continues to support

work on other cleanup sites led by federal agencies throughout the region. In all, DEQ is involved in nearly 20 selenium-related remediation sites in southeast Idaho.

Metals Contamination in the Coeur d'Alene Basin. In 1983 EPA listed the Bunker Hill Mining and Metallurgical Complex as a Superfund site. This listing was in large part due to high levels of metals (including lead, arsenic, cadmium, and zinc) in the local environment and elevated blood lead levels in children.

The focus of cleanup in the area has been on replacing metals-contaminated residential yards with clean soil. By removing the contaminated soil and replacing it with clean soil, exposure to heavy metals among individuals, particularly children, is reduced. DEQ receives federal funds for this program and is responsible for oversight of the yard remediation program.

DEQ works with the Basin Environmental Improvement Project Commission to oversee implementation of the cleanup for the Coeur d'Alene Basin.

Strategies for long-term mining cleanups:

- Work with industry, state, federal, and tribal agencies to conduct site-specific assessments, interim actions, and remediation activities to address selenium contamination resulting from phosphate mining in southeast Idaho.
- Remediate contaminated residential yards, rights-of-way, and commercial properties in the Coeur d'Alene Basin.
- Support the Basin Environmental Improvement Project Commission with its task of addressing heavy metal contamination in the Coeur d'Alene Basin.

Waste and Remedation Performance Measures

- ✓ **In FY2010, meet all milestones, deliverables, and deadlines for state-led phosphate mine remediation activities, consistent with agreements in place to assess and remediate selenium contamination in southeast Idaho.**
- ✓ **During the 2009 construction season,* remediate 470 metals-contaminated properties in the Coeur d'Alene Basin.**
- ✓ **By the end of the 2009 construction season,* remediate a total of 2,748 metals-contaminated yards in the Coeur d'Alene Basin.**

* The construction season is weather-dependent and can span portions of two fiscal years (FY2009 and FY2010). For planning purposes, it generally lasts from April through October.

DEQ Brownfield Program at Work:

A DEQ assessment helped Treasure Valley Institute for Children's Arts plan for cleanup and historic preservation of the old Methodist Church in Hyde Park, Boise.



Emerging Issues and Opportunities in Waste Management and Remediation

EPA approval of the state underground storage tank program. State rules governing underground storage tank systems have been developed and approved by the legislature. Approval of the state program by EPA, which would allow the state to operate the program in Idaho in lieu of EPA, has not yet been obtained. DEQ intends to apply for and obtain approval from EPA.

Leaking underground storage tank program. EPA has indicated that Idaho will receive approximately \$1.3 million in American Recovery and Reinvestment Act of 2009 (ARRA) funds to clean up eligible properties contaminated by leaking underground storage tank systems. This effort is above and beyond the existing program and must be uniquely managed, with specific reporting and accounting for jobs created.

Accelerated Coeur d'Alene Basin yard cleanup. EPA has indicated that \$10-\$25 million in ARRA funding will be made available over the next two years to accelerate the yard cleanup program in the Coeur d'Alene Basin. This funding will reduce the time to fully remediate yards in the basin by approximately 2 years.



Yard cleanup in the Coeur d'Alene Basin

Idaho National Laboratory Goal

Protect human health and the environment on and around the Idaho National Laboratory.

DEQ works with the U.S. Department of Energy (DOE), EPA, and other agencies to ensure the Idaho National Laboratory (INL) is operated in a manner that protects public health and the environment while continuing work to address national energy, engineering, and environmental challenges. The agencies ensure the INL complies with legal agreements for waste treatment, remediation, and removal, and all applicable environmental regulations. DEQ has two objectives to meet this goal.

Objective 1. Monitor environmental conditions to ensure the INL and surrounding area meet air, radiation, and water quality standards, and keep the public informed.

DEQ maintains an environmental monitoring program around the INL designed to verify and supplement monitoring activities carried out by the INL. A database of monitoring results covering more than a decade has been developed. This information allows DEQ to better understand background radiation, track emissions from site facilities, and track contamination in the aquifer.

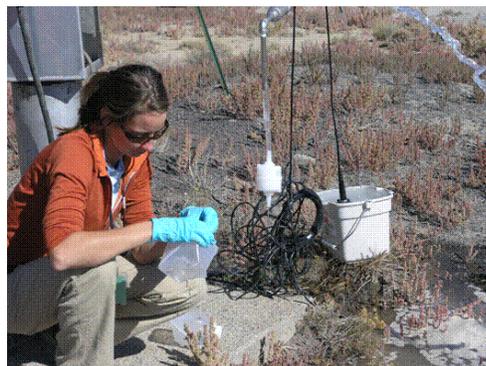
Environmental monitoring data is analyzed annually to determine changes over time. Reports are prepared and released regularly to keep the public informed.

Strategies for INL monitoring and public information:

- Operate 10 continuous air monitoring stations and 11 real-time radiation monitoring stations.
- Collect samples and analyze the data from 97 ground water sampling locations.
- Analyze ground water data obtained from wells drilled by the U.S. Geological Survey and DOE.
- Analyze sample results from 11 wastewater sites.
- Conduct milk sampling of dairy animals to indirectly verify the presence or absence of atmospheric radioiodine deposited in the terrestrial environment.
- Conduct soil sampling and analyze the data to evaluate the long-term deposition and migration of contaminants in the environment.
- Ensure the public is kept informed of how activities at the INL affect public health and the environment, through quarterly and annual monitoring reports published on the DEQ Web site.

INL Oversight Performance Measure

- ✓ **In FY2010, ensure continuous air monitoring stations and real-time radiation monitoring stations are operational 97% of the time. (This is a benchmark performance measure; see the *Performance Accountability* section.)**



Objective 2. Assess and remediate past and potential hazardous and radiological contamination sites at the INL pursuant to the Federal Facilities Agreement and Consent Order (FFA/CO).

DEQ works with DOE and EPA to investigate sites where past or threatened releases of hazardous and radiological contamination to the environment have been or may be discovered. The investigations inform DEQ on remedial action necessary to protect public health and the environment.

Remedial activities that occur at the INL must comply with signed cleanup agreements called records of decision (RODs). A **ROD** is a legal, technical, and public document that explains which cleanup alternative will be used in a specified area of the site. A ROD is based on information and technical analysis generated during a remedial investigation and feasibility study phase of work and takes into consideration public comments and community concerns.

A more streamlined process can also be used for investigation and remedial action, which typically involves the deactivation and decommissioning of excess, potentially contaminated buildings and structures. The steps of this process include an engineering evaluation and cost analysis (EE/CA) and an action memorandum (AM) that implements the preferred cleanup alternative after public comment.

The INL consists of ten waste area groups (WAGs), of which all but WAG 10 has a completed ROD. Work is now focusing on this final ROD for WAG 10, Operable Unit 08, Site-wide Ground water and Miscellaneous Sites. The INL also must perform ongoing monitoring of soil, perched water, and the Snake River Plain Aquifer. The focus of DEQ's activities ensures the INL is complying with all RODs, AMs, and ongoing monitoring requirements specified in the FFA/CO and subsequent decision documents.

Strategies for remediating the INL:

- Review and approve plans for contaminated site investigations and risk assessments, and approve of remedial actions.
- Prepare documents for public comment and review, and develop or amend RODs, AMs, EE/CAs, and associated documents for implementation of remedial activities.
- Oversee remediation, monitoring, and long-term stewardship of contaminated sites at the INL.

INL Oversight Performance Measures

- ✓ **In FY2010, finalize the ROD for Waste Area Group 10, Operable Unit 08, Site-wide Ground Water and Miscellaneous Sites.**
- ✓ **In FY2010, finalize the preferred alternative EE/CA and AM for the Hot Cells at the Advanced Test Reactor Complex.**
- ✓ **In FY2010, finalize the preferred alternative EE/CA and AM for the EBR-II Reactor Facility.**

Water Quality Goal 1

Maintain and improve surface and ground water quality in Idaho.

Two primary state statutes direct DEQ's overall efforts to maintain and improve surface and ground water quality. Under Idaho Code §§39-3601 to 3623, DEQ works with six basin advisory groups (BAGs) across the state for advice on surface water quality protection. BAGs provide input on water quality improvement plans (known as total maximum daily loads or TMDLs), the biennial report to EPA on state water quality (Integrated Report), and water quality improvement projects that address nonpoint source pollution impacts on surface and ground water. The law also requires DEQ to form and work with individual watershed advisory groups for the development and implementation of specific TMDLs.

Idaho Code §§39-120 to 127 designates DEQ as the primary state agency to coordinate and administer ground water quality protection programs. Rules have been promulgated under this statute to ensure DEQ maintains and protects the existing high quality of the state's ground water and the existing and projected future beneficial uses of ground water and interconnected surface water. DEQ also works more informally with lake protection associations and ground water protection groups who share a common interest in protecting the quality of state water resources and public health.

Finally, DEQ has delegated authorities under Section 401 of the federal Clean Water Act to issue water quality certifications for other agency permits. These certifications include provisions that must be met to ensure compliance of wastewater discharge permits (known as NPDES permits), dredge and fill permits (covered under the Clean Water Act Section 404), and hydropower license permits (granted by the Federal Energy Regulatory Commission) with state water quality standards. To meet the goal of improving the quality of surface and ground water in Idaho, the Water Quality Division has three objectives, described below.

Objective 1. Monitor and assess water quality conditions to determine compliance with standards and support of beneficial uses.

In cooperation with other state and federal agencies, DEQ conducts monitoring for surface water and ground water trends, reconnaissance, special projects, and priority areas to assess conditions, prepare reports, and update standards.

The economy and agency budget reductions have resulted in suspension of surface water trend monitoring and the Beneficial Use Reconnaissance Program monitoring for FY2010. Although the agency has long-term historical data from these monitoring efforts, our hope is that funding will be restored as the economy revitalizes to avoid diminishing our understanding of conditions and the ability to meet the agency's overall responsibility for protecting water quality.

Strategies for determining compliance with water quality standards and support of beneficial uses:

- Collaborate with other agencies to monitor ground water quality in nitrate priority areas to develop improvement plans and evaluate the effectiveness of plans being implemented.
- Conduct appropriate follow-up monitoring when constituents of concern are detected through the Idaho Department of Water Resources Statewide Ambient Ground Water Quality Monitoring Network.
- Every five years evaluate ground water data for trends in nitrate concentrations and update the nitrate priority areas.
- Include monitoring requirements in all wastewater reuse permits to ensure surface and ground water quality are protected.

- Collect and evaluate information from contractors and sub-grantees in implementing nonpoint source projects to determine progress in reducing water quality impacts from agriculture, forest practices, mining, urban development, and other activities.
- Conduct on-site evaluations of 30 active nonpoint source projects and three legacy projects to assess the effectiveness of ongoing project maintenance.
- Under agreement with EPA, inspect facilities with National Pollutant Discharge Elimination System (NPDES) permits and review monthly monitoring reports to determine compliance with permit requirements.
- Monitor trends in the Clark Fork/Pend Oreille watershed to track potential impacts from planned mining development in the Upper Clark Fork River.
- Conduct the triennial review of surface water quality standards and identify needs for updates.
- Conduct water quality monitoring in large rivers under the EPA-funded Regional Environmental Monitoring and Assessment Program (REMAP).
- Collect surface water quality data and biological, chemical, and physical data as part of TMDL subbasin assessments or specific surface water quality investigations to determine compliance with state surface water quality standards.
- Compile, analyze, and interpret surface water quality data and input into DEQ's Assessment Database.
- Complete and submit to EPA the Integrated Report on state water quality, as required under sections 305b and 303d of the federal Clean Water Act.

Water Quality Performance Measures

- ✓ **In FY2010, complete 50 inspections of NPDES-permitted facilities, under agreement with EPA.**
- ✓ **In FY2010, complete 64 annual report reviews for permitted wastewater reuse facilities.**
- ✓ **In FY 2010, complete 74 inspections of permitted wastewater reuse facilities.**
- ✓ **In FY2010, complete 24 compliance reviews submitted for permitted wastewater reuse facilities.**
- ✓ **In FY2010, complete the Clark Fork/Pend Oreille Watershed water quality report.**
- ✓ **In FY2010, complete and submit the REMAP Large Rivers Report to EPA.**
- ✓ **In FY2010, complete the 2008 Large Rivers Fish Tissue Mercury Report.**
- ✓ **In FY2010, complete and submit the 2010 Integrated Report to EPA.**

Objective 2. Complete reviews, guidance, and plans for improving and maintaining water quality.

DEQ performs a variety of functions designed to improve and maintain surface and ground water quality. We develop technical guidance to help consultants, businesses, permittees, and citizens comply with environmental requirements. We perform reviews and evaluations of environmental analyses to ensure proposed activities will comply with applicable requirements.

DEQ completes several types of statewide and local water quality plans designed to improve and protect water quality. Examples include the statewide Nonpoint Source (NPS) Management Plan, Ground Water Quality

Improvement Plans for nitrate priority areas, and TMDLs for impaired surface waters. The environmental reviews and guidance are designed to prevent impacts to water quality, while the various plans address how to improve and maintain water quality.

Strategies for improving and maintaining water quality:

- Work with other state and federal partners to rewrite the NPS Management Plan and related memorandum of understanding to protect water quality from the impacts of nonpoint source activities.

- Work with local stakeholders to develop ground water quality improvement plans in ten localized nitrate priority areas.
- Develop guidance to facilitate implementation of the Idaho Ground Water Quality Rule in a consistent manner on a statewide basis.
- Provide ground water quality data to the public through Web-based applications.
- Complete Assessment Unit/Pollutant Combination TMDLs that remain under the 2002 TMDL Settlement Agreement and submit to EPA for approval.
- Work with watershed advisory groups to complete TMDL reviews at 5-year intervals.
- Complete Assessment Unit/Pollutant Combination TMDLs for impaired water bodies identified in the 2008 Integrated Report and submit to EPA for approval. (See the discussion of external factors below).
- Work with the stakeholder committee to update the Wastewater Reuse Guidance for use by DEQ staff, the public, and permittees and their consultants.
- Use the DEQ Wastewater Reuse Guidance as an outreach tool for working with customers to improve design, testing, and other wastewater-related activities and assist customers in complying with requirements.
- Provide guidance to consultants for completing evaluations of nutrient-pathogen impacts on water quality from subsurface sewage disposal systems.
- Review nutrient-pathogen evaluations written by consultants to ensure proposed developments meet applicable water quality standards.

Water Quality Performance Measures

- ✓ **By FY2011, work with stakeholders to complete the rewrite of the NPS Management Plan.**
- ✓ **In FY2010, complete ground water quality improvement plans for 10 nitrate priority areas.**
- ✓ **In 2010, complete 283 Assessment Unit/Pollutant Combination TMDLs. (This is a benchmark performance measure; see the *Performance Accountability* section.)**
- ✓ **In 2010, complete 5 TMDL 5-year reviews.**

External factors affecting performance success. Reductions in DEQ's state general fund budget have required the agency to set priorities for completing TMDL work required under the 2002 Settlement Agreement and state statute. The priorities are 1) complete 2002 settlement agreement TMDLs, 2) complete TMDL 5-year reviews, and 3) complete TMDLs for newly-listed water bodies in the 2008 Integrated Report.

Objective 3. Implement pollution reduction actions needed to meet water quality standards and support beneficial uses.

DEQ implements pollution reduction actions in many ways, including permitting, water quality certifications of other agency permits, wastewater facility inspections, engineering reviews of wastewater systems, funding for nonpoint source pollution reduction grants, and wastewater facility improvement grants and loans.

Appropriate design and engineering can prevent pollution. Permit and certification conditions are included to limit pollutants to levels that meet applicable water quality standards. Facility inspections ensure compliance with

permit requirements and can trigger corrective action, if necessary. Finally, grant/loan funding provides direct support for implementation of actual pollution reduction actions.

Strategies for reducing surface and ground water pollution:

- Provide technical and regulatory assistance to local governments to help them protect ground water quality in accordance with their statutory responsibilities.

- Provide implementation support to communities as identified in completed Ground Water Quality Improvement Plans.
- Promote reuse of wastewater, thereby eliminating surface water discharges and putting reclaimed wastewater to beneficial use.
- Complete annual wastewater reuse facility inspections and report reviews to ensure compliance with permit requirements and optimize treatment efficiencies and energy costs.
- Issue water quality certifications (Clean Water Act Section 401) for Federal Energy Regulatory Commission (FERC) hydropower permits, U.S. Army Corps of Engineers dredge and fill permits (Clean Water Act Section 404), and EPA NPDES permits for wastewater discharges.
- Include performance measures, mitigation steps, and enhancement plans in certification conditions for FERC license applications to offset or correct short-term water quality impacts.
- Work with border states and EPA Regions 8 and 10 to address interstate water quality issues such as TMDLs, NPDES permits, and FERC relicensures.
- Promote pollutant trading as a cost-effective tool to implement pollutant reduction in watersheds with approved TMDLs.
- Work with the various permitting agencies in developing an administrative record for water quality certifications documenting compliance with state water quality standards.
- Implement the Coeur d'Alene Lake Management Plan to control metals in lake bottom sediments in coordination with the Coeur d'Alene Tribe, three counties, and other watershed partners.
- Provide state-funded grant assistance to eligible communities to complete the planning phase of wastewater treatment system projects to protect public health and reduce water pollution impacts.
- Provide state-funded and federal-funded loan assistance (Wastewater State Revolving Fund Loans) to eligible communities for the design and construction of wastewater treatment systems to protect public health and reduce water pollution.
- Provide federal grant funding and technical oversight for implementing projects to reduce nonpoint source pollutants.
- Complete reviews of wastewater engineering plans and specifications within 42 days, as required by statute, to ensure designs meet rule requirements, protect public health, and protect surface and ground waters from contamination.
- Provide technical information, guidance, and training on various wastewater issues of interest such as microconstituents, specific reuse topics, lagoon seepage, and handling of biosolids and septage.

Water Quality Performance Measures

- ✓ **In FY2010, obligate 100% of available wastewater and nonpoint source grant and loan funds.**
- ✓ **In FY2010, complete reviews of engineering plans and specifications for wastewater systems within the statutory deadline of 42 days. (This is a benchmark performance measure; see the *Performance Accountability* section.)**
- ✓ **In FY2010, issue 39 permits for wastewater reuse facilities.**
- ✓ **By FY2011, reduce the processing time for wastewater reuse permits by 20%.**

Water Quality Goal 2

Protect human health through the delivery of safe and reliable drinking water from public water systems.

DEQ recognizes that economic health and public health are closely related. Economically viable and sustainable communities and the health and well-being of Idaho citizens are dependent upon safe and reliable sources of drinking water. To meet this goal, the Water Quality Division has three objectives, described below.

Objective 1. Ensure customers served by regulated public water systems are receiving safe and reliable drinking water.

DEQ provides technical assistance, training, and support to public water systems so they are able to produce and deliver safe and reliable drinking water. This is accomplished by ensuring that public water systems are located, designed, constructed, operated, maintained, and protected to reliably meet health-based drinking water standards.

Strategies to ensure safe and reliable drinking water:

- Provide technical assistance and training to owners and operators of public water systems to help them comply with drinking water quality standards.



- Respond immediately to all acute contamination events at public water systems and assist with timely diagnosis and resolution of the problem.
- Assist public water systems in the prevention of waterborne disease outbreaks by requiring compliance with health-based standards and the Idaho Rules for Public Drinking Water Systems.
- Provide the public with immediate access to information about the quality of their drinking water through Drinking Water Watch, a Web-based reporting system.
- Encourage mutual assistance between water utilities and provide opportunities by hosting and maintaining the Idaho Water Area Response Network (IDWARN) Web site and the Operator Search Tool Web site for finding qualified operators.
- Complete reviews of engineering plans and specifications for public drinking water systems within the 42 days required by statute to ensure systems are properly located, designed, and constructed.
- Conduct comprehensive sanitary survey inspections at public water systems to ensure they are properly maintained and operated.
- Provide timely response to violations and require compliance with health-based standards and rules through enforcement action, after exhausting technical assistance and educational opportunities.
- Complete source water assessments on new drinking water sources and assist communities in using the information to develop and implement drinking water source protection strategies.

Water Quality Performance Measures

- ✓ **In FY2010, obligate 100% of available drinking water grant and loan funds.**
- ✓ **In FY2010, complete reviews of engineering plans and specifications for drinking water systems within the statutory deadline of 42 days. (This is a benchmark performance measure; see the *Performance Accountability* section.)**
- ✓ **In FY 2010, work with owners of public water systems to ensure that 90% of the people served by community water systems receive water that meets all health-based standards. (This is a benchmark performance measure; see the *Performance Accountability* section.)**

External factors affecting performance success. EPA promulgation of new or more stringent standards for drinking water has resulted in a decrease in the percentage of people served safe drinking water. It is important to note that drinking water is of the same relative quality as it has been, but the additional treatment needed to comply with more stringent standards for disinfection by-products (2008), arsenic (2006), and radionuclides (2002) has proven difficult and expensive to achieve, resulting in lower compliance rates. DEQ has entered into compliance agreement schedules with public drinking water systems to provide additional time to meet the new, more stringent drinking water standards.

Objective 2. Assist public water systems in protecting their drinking water sources from contamination.

Communities depend on clean drinking water supplies to ensure public health, economic development, sound financing, and the quality of life of residents. Drinking water protection is focused on preventing contamination of the aquifers and surface water bodies that are the source of drinking water supplies.

Keeping contaminants from entering a public water system can benefit a community by reducing the risk to public health, saving on costs of monitoring, and preventing the need for additional water treatment.

Drinking water source protection is a voluntary program a community can undertake to help prevent its public water supply from becoming contaminated.

Strategies for protecting drinking water sources:

- Work with local governments to protect drinking water sources by including ground water and source water protection as a component in their comprehensive plans.
- Provide assistance to local governments interested in source water protection in developing tools such as ordinances, overlay zones, riparian buffers, and land use planning.
- Work with public water systems and local governments to develop regional plans, drinking water source protection plans, and aquifer protection plans, and to re-certify existing drinking water protection plans.

Objective 3. Provide financial assistance to public water systems for facility improvements and source water protection.

The cost of compliance with the Safe Drinking Water Act provisions can be a difficult burden for many drinking water systems, especially those with a small population base. DEQ provides financial assistance to communities to prevent contamination of drinking water supply sources and to make facility improvements needed to comply with regulatory requirements.

The source water protection grant program makes funding available to help communities with projects that mitigate or prevent degradation of ground water or surface water sources that supply their systems. The DEQ grant and loan program provides funding to communities to help them make the system improvements needed to provide affordable, safe drinking water.

Strategies for funding protection and improvements:

- Provide funding to public water systems, local governments, and nonprofit entities through the source water protection grant program to implement strategies to protect drinking water sources.
- Provide state grant funding to eligible systems for completion of facility plans in preparation for obtaining DEQ loans for design and construction of drinking water treatment systems.
- Provide state-funded and federal-funded low-interest loan assistance to eligible communities for the design and construction of safe drinking water systems.

Water Quality Performance Measures

- ✓ **In FY2010, obligate 100% of available drinking water grant and loan funds.**
- ✓ **In FY 2010, provide \$120,000 in source water protection grants.**



Photo by Paul Frantellizzi,
Courtesy Idaho Tourism

Emerging Issues and Opportunities in Water Quality

Enhanced capacity for drinking water and wastewater system loans. DEQ will integrate the American Recovery and Reinvestment Act (ARRA) funding received in 2010, with the additional requirements, into the framework of existing wastewater and drinking water system construction loans. This additional funding will allow DEQ to assist more communities than usual with infrastructure improvements in 2010.

Priority water quality studies. DEQ has received additional ARRA funding to conduct priority water quality studies. Some projects are in progress and require completion, and some are at the top of existing priority lists. Projects included are mercury monitoring and database development, assessments of the impact to water quality from subsurface sewage systems, and monitoring in the Clark Fork/Pend Oreille Watershed.

Interstate water quality initiatives. There are several significant interstate water quality initiatives that are regional priorities and long-term endeavors.

- **Coeur d'Alene Region.** Work with EPA and Washington Department of Ecology on NPDES permits for dischargers to the Spokane River. These permits could result in a precedent for low phosphorus concentration effluent limits. In light of shared resource interests in the Spokane River and Rathdrum Prairie Aquifer, it has become critical to formalize a collaborative process with Idaho and Washington state, the Coeur d'Alene and Spokane tribes and local agencies. The interconnections between the river and aquifer have become increasingly apparent as work progresses to address issues affecting the water quality of both resources. DEQ also has settlement agreements in place for FERC projects on the Clark Fork River/Pend Oreille Lake (MT/ID/WA/Tribes) and Coeur d'Alene Lake/Spokane River (ID/WA/Tribes) that require ongoing coordination, implementation, and oversight to ensure compliance with water quality standards and follow-through on mitigation.
- **Boise Region.** Idaho DEQ and Oregon DEQ are working cooperatively on Clean Water Act water quality certifications and a settlement agreement for the Snake River Hells Canyon FERC relicensing application. Through this process, there will be increased opportunities for water quality improvements needed to meet the Snake River-Hells Canyon TMDL.
- **Pocatello Region.** Idaho, Wyoming, Utah, and EPA Regions 8 and 10 are working collaboratively to address interstate water quality issues in the Bear River Basin. Under the Bear River Compact, the Water Quality Sub-Committee and Bear River Commission are coordinating interstate work to implement water quality improvements through TMDLs, pollutant trading, and other measures.

Reauthorizations of the Clean Water and Safe Drinking Water Acts. Congress is considering reauthorization of these two major federal environmental statutes. Included are considerations that would allow Clean Water State Revolving Fund loan subsidies for disadvantaged communities. Provisions are also being considered that would require both the Clean Water and Drinking Water State Revolving Funds to incorporate "green infrastructure" funding support. A portion of each year's loans would have to go to support sustainability efforts. If these changes in federal statute come about, DEQ will need to revise its rules for the state revolving fund programs to incorporate them.

Emergency Preparedness and Response Goal

Prevent, prepare, and respond to public health and environmental emergencies.

DEQ maintains the resources and readiness to quickly and effectively support local emergency response personnel and communities when an environmental or public health emergency occurs. This is accomplished by training alongside regional response teams; state agencies such as the Idaho Transportation Department, Department of Fish and Game, and Idaho Bureau of Homeland Security; and federal agencies such as EPA and the Federal Emergency Management Agency. Additionally, DEQ maintains expertise in handling hazardous and radioactive materials by participating in advanced-level courses and exercises. To meet the emergency preparedness and response goal, DEQ has two objectives, described below.

Objective 1. Provide training and technical expertise for emergency planning and preparedness.

DEQ works with the Idaho Bureau of Homeland Security (BHS) and U.S. Department of Energy (DOE) to train and prepare local communities and regional response teams to respond to emergencies involving hazardous and radiological materials.

Strategies for emergency planning and preparedness:

- Provide specific training and technical support to cities, counties, hospitals, tribes, and other state agencies in responding to hazardous and radiological emergencies, natural disasters, and terrorist acts.
- Work with other state and federal agencies to develop predictive air dispersion and water transport models to use as tools in responding to and minimizing impacts from spills of hazardous materials.
- Work with federal, state, and local agencies to develop plans for responding to incidents occurring along transportation routes.
- Maintain expertise with the National Incident Management System and Incident Command System by participating in exercises and advanced training.
- Review the Idaho Fixed Facilities Emergency Plan annually to ensure compliance with state regulatory requirements and federal guidance.
- When there is an INL emergency involving the potential or actual release of radioactive materials, DEQ-INL Oversight Program, DOE-Idaho Operations Office, and affected INL facilities and counties will activate their respective emergency plans as necessary to protect public health.
- Participate in DOE and BHS emergency response exercises.

Objective 2. Respond to public health and environmental emergencies.

DEQ is one of many agencies that participates in the State Emergency Management Program, operated under the leadership of BHS. When an emergency occurs, DEQ participates in the BHS communication center bridge calls for planning and coordinating incident responses. DEQ provides personnel support on-scene to assess environmental and human health risks, suggest approaches for minimizing impacts, coordinate environmental investigations, and characterize and oversee cleanup.

In the event of a state-declared or federally-declared disaster, DEQ provides personnel to work in the State Emergency Operations Center in Boise, in support offices, or both.

DEQ is also authorized to implement procedures to address public health emergencies. In the event of an air pollution emergency, DEQ may implement a series of increasingly stringent pollution control measures while keeping the public informed of efforts that are underway

and advised of actions to safeguard health. In the event of a release that may threaten drinking water supplies, DEQ works with public water systems to ensure plans are in place to protect supplies and, in the event of contamination, keep the public informed and advised of necessary precautions.

Strategies for emergency response:

- Provide technical advice to on-scene commanders for responding to chemical and radiological emergencies.
- Provide or help identify resources needed for emergency response actions.
- Provide pertinent emergency information to the public.
- Collaborate with the Idaho Department of Health and Welfare's Division of Public Health to provide appropriate public health information.
- Provide immediate response to public drinking water contamination incidents that pose an acute public health threat.

Emerging Issues and Opportunities in Emergency Preparedness and Response

Building emergency response depth. As Idaho moves towards full integration with the National Incident Management System and the Incident Command System for responding to local and regional emergencies, DEQ will need to build emergency response depth within the organization. Over the next few years, DEQ will train multiple levels of management in the Incident Command System as well as key staff in the Air Quality, Waste and Remediation, and Water Quality Divisions.

Environmental Outreach and Education Goal

Encourage and empower Idaho citizens, businesses, and communities to engage in behaviors to protect public health and preserve Idaho's environment.

Government alone cannot succeed in protecting public health and preserving Idaho's environment. The active support of Idaho's citizens, businesses, and communities is essential. Education and outreach are vital to raise awareness and promote behaviors that will help accomplish this goal. To meet this goal, DEQ has three objectives, described below.

Objective 1. Employ public outreach to increase awareness and understanding of environmental and related health issues impacting Idaho citizens.

Idaho's environmental laws, rules, and programs can be complex and difficult to understand. Yet, to be effective, they must be understood and integrated into the daily lives of our citizens. Acting on the belief that informed citizens are active citizens, DEQ is committed to sharing information to foster citizen action to help achieve the environmental and public health protection goals and objectives outlined in this plan.

Strategies for increasing environmental and public health awareness:

- Plan, develop, and implement public outreach campaigns that impart tangible ways Idahoans can help protect public health and preserve the quality of Idaho's air, water, and land.
- Develop high-quality, accurate, and understandable publications, Web content, displays, and other outreach materials designed to inform stakeholders about key environmental issues and agency initiatives.
- Provide widespread and timely public access to information on environmental issues and agency activities via the news media, DEQ's Web site, and events sponsored by DEQ and stakeholders.
- Develop and work with schools over the Rathdrum Prairie Aquifer to implement a curriculum for aquifer protection.
- Develop and conduct a public outreach campaign aimed at informing citizens, particularly sensitive populations, how to protect themselves from smoke impacts as a result of crop residue burning.
- Collaborate with other state agencies to educate boaters on how to protect Idaho water bodies from aquatic invasive species.
- Develop training for local elected and solid waste officials on how to conduct a household hazardous waste collection event in their communities.



Objective 2. Build the capabilities of Idaho citizens to incorporate pollution prevention practices into the workplace and their daily lives.

Pollution prevention (P2) is any activity—including the use of materials, processes, or practices—that reduces or eliminates the creation of pollutants or waste at the source. Instead of trying to manage the wastes or pollutants through treatment or disposal methods, P2 aims to prevent the initial generation or reduce the toxicity of wastes and pollutants such as hazardous waste, air pollutants, solid waste, wastewater, etc.

P2 also includes any activity that reduces the toxicity of materials purchased or reduces the consumption of resources such as raw materials, water, energy, or fuel. By employing pollution prevention practices, stakeholders can enhance productivity, save money, improve workplace safety, reduce liability, and conserve natural resources.

Strategies for building pollution prevention capabilities:

- Plan, develop, and implement projects that provide stakeholders with effective tools to prevent pollution, minimize waste, and conserve energy and resources.
- Expand participation in the agency's anti-idling program, Clean Air Zone Idaho, among schools, businesses, and communities to reduce tail pipe emissions.
- Collaborate with the Idaho Small Business Development Center to reduce energy consumption

and improve energy efficiency among small businesses in Idaho.

- Partner with the Idaho TechHelp Program to incorporate P2 techniques into technical assistance visits.
- Provide technical assistance to avert potential violations of environmental laws, rules, and programs; enhance compliance; and encourage above-and-beyond-compliance actions to protect public health and preserve the environment.
- Recognize the P2 achievements of stakeholders, with an eye toward encouraging others to replicate these successes.



Objective 3. Lead by example to demonstrate DEQ's commitment to the benefits of modeling environmentally responsible behaviors.

As the state agency responsible for ensuring clean air, water, and land in the state and protecting Idaho citizens from the adverse health impacts of pollution,



it is incumbent upon DEQ to model environmentally responsible behaviors and demonstrate the benefits of those behaviors to public health and the environment.

Strategies for leading by example:

- Encourage and facilitate staff participation in environmentally responsible behaviors such as the use of alternative transportation, recycling, and energy conservation.
- Develop and practice internal policies and procedures to prevent pollution, conserve resources, and mentor stakeholders on how to pursue and achieve similar results.

Outreach and Education Performance Measures

- ✓ **In FY2010, provide 7,000 Idaho citizens with information on simple and effective actions they can take to help protect public health and preserve Idaho's environment.**
- ✓ **In FY 2010, increase by 10% the number of participants in the Clean Air Zone Idaho anti-idling program.**

Emerging Issues and Opportunities in Education and Outreach

e-Learning. e-Learning is the use of technology to enable people to learn anytime and anywhere. It is a cost-effective and efficient means of sharing information with the agency's internal and external customers. In these days of limited time and resources and tight budgets, DEQ anticipates a growing reliance upon e-Learning as an education, outreach, and communication tool.

Broadening outreach. The highly populated urban centers of southern Idaho have been the focus of significant and successful outreach efforts in past years. DEQ regional offices will work with outreach staff to expand efforts and resources into smaller, less populated rural areas throughout Idaho.

Performance Accountability

DEQ has established two sets of performance measures to track progress toward meeting agency goals and to maintain readiness for the challenges of the future: 1) program performance measures and 2) benchmark performance measures.

The **program performance measures** address ongoing agency functions and services to protect human health and the environment. Each division has identified and tracks measures important to managing internal program performance, meeting performance agreements with EPA, and meeting grant conditions for external sources of funding. These performance commitments have been included throughout this plan to provide a more complete picture of the ongoing functions and services the agency performs.

The **benchmark performance measures** are how the agency reports performance accountability to the state legislature, which is the main purpose of the strategic plan. DEQ has chosen eight benchmark performance measures to track and report progress in meeting the overall agency goal of protecting public health and the environment. We have focused on these same measures for several years to ensure consistency in assessing progress over time. These performance measures were purposefully chosen because each reflects an actual environmental or public health outcome (result) of many different actions that, when taken together, indicate progress toward achieving overall agency goals. A definition of each benchmark measure is given below, followed by the agency performance commitments for FY2010 (Table 1).

Definitions of Benchmark Performance Measures

- 1. Air Quality Index “Good” or “Moderate” 98% of days.** The Air Quality Index is a tool to help citizens understand the severity of air pollution and potential health implications so they can take steps to protect their health and reduce their contribution to air pollution. The index is calculated using actual monitoring data compared to health-based standards. It is reported daily in selected cities on a scale of increasing pollution and health concerns, according to the following six categories: good, moderate, unhealthy for sensitive groups, unhealthy, very unhealthy, and hazardous.
- 2. Permits to construct issued, on average, in 99 days.** DEQ recognizes the importance of issuing timely permits to construct so facilities that require permits can plan and make strategic business decisions. State statute requires permits to construct to be issued within 120 days. DEQ streamlined its permitting process in 2007 and tracks the amount of time it takes to issue a permit to construct on a two-year, monthly rolling average. DEQ can now issue a permit to construct, on average, in 99 days and reports annually the actual two-year rolling average number of days to issue these permits.
- 3. Hazardous waste permits and reviews.** Permits and reviews associated with hazardous wastes are completed annually according to established schedules. Timeframes are established from a variety of sources, including federal regulations, project schedules, construction seasons, and company requests.
- 4. Brownfields site assessments.** A Brownfields site is a vacant or underutilized property where redevelopment or reuse is complicated by actual or perceived environmental contamination. Site assessments are completed to provide environmental information that is necessary for proceeding with redevelopment or reuse. This information is used to guide site cleanup to minimize public health risks and bolster the community’s economic vitality.
- 5. Monitoring of Idaho National Laboratory conditions.** Continuous air quality monitors and real-time radiation monitors for the Idaho National Laboratory must be operational 97% or more of the time to track environmental conditions and protect public health.

Definitions of Benchmark Performance Measures

- 6. TMDLs.** DEQ is required to complete total maximum daily loads (TMDLs), or water quality improvement plans, for water bodies that are not meeting water quality standards or supporting beneficial uses. TMDLs are completed for streams/rivers based on the number of assessment units they contain and the number of individual pollutants that are impairing water quality. Idaho's streams and rivers have been categorized into 5,200 assessment units based on Hydrologic Catalog Units (watersheds) and stream order. These units encompass approximately 92,000 miles of streams and rivers. As an example, if a stream is made up of 3 assessment units and has 4 pollutants identified as impairing water quality, there would be 12 assessment unit/pollutant combination TMDLs to complete for that stream.
- 7. Reviews of drinking water and wastewater engineering plans and specifications.** In 2005 the legislature established a 42-day timeframe for DEQ to review and act on engineering plans and specifications. This establishes a reasonable window to complete thorough evaluations while at the same time being responsive to business planning needs.
- 8. Regulating community water systems to provide safe drinking water.** The total population of Idaho is 1,523,817. Idaho has 752 community water systems, serving 1,062,060 people. Rigorous monitoring requirements for community water systems must be met to ensure safe drinking water is provided and public health is protected.

Table 1. DEQ Performance Commitments for FY2010.

Benchmark Performance Measure	Performance Commitment FY 2010
1) Percentage of days that the Air Quality Index is in the "good" or "moderate" category.	98%
2) Number of days, on a two-year rolling average, to issue a permit to construct.	99 days
3) Percentage of scheduled hazardous waste permits or reviews completed within established timeframes.	100%
4) Number of Brownfields site assessments completed.	10
5) Percentage of time that air monitoring and radiation monitoring stations are operational to monitor INL conditions.	97%
6) Number of TMDLs completed for assessment unit/pollutant combinations.	283
7) Percentage of drinking water and wastewater plan and specification reviews completed within 42 days of receipt.	100%
8) Percentage of people on community water systems served drinking water that meets health-based standards.	90%

While the focus of this strategic plan is primarily on agency performance commitments for the FY2010 budget appropriation, it is also forward-looking through FY2013. Emerging issues and opportunities have been identified and described throughout this plan and are summarized in Table 2.

Looking forward on a four-year horizon, these initiatives may be short-term or they may lead to a shift in agency focus and become the ongoing priorities of the future. Many of the emerging issues and opportunities DEQ has identified are related to the passage of the American Recovery and Reinvestment Act of 2009 (ARRA), better known as the economic "stimulus funding." DEQ has received initial funding that must be spent or obligated within the next two fiscal years. Each program receiving funds has a different timeframe for expending the funds. Additional stimulus funding is expected to follow and could extend through FY2013. Anticipating the opportunities and challenges of the future will better position the agency to make adjustments, if needed, while at the same time remaining focused on core functions and services.

Table 2. Emerging Issues and Opportunities for 2010-2013.

Emerging Issue/Opportunity	Timeframe
1) School bus emissions reduction (ARRA)	2010-2011
2) Biomass for energy production	2010-2013
3) Forest health and air quality	2010-2013
4) Approval by EPA of state underground storage program	2010-2011
5) Cleanups of sites with leaking underground storage tanks (ARRA)	2010-2011
6) Accelerated yard cleanups in the Coeur d'Alene Basin (ARRA)	2010-2011
7) Enhanced capacity for drinking water and wastewater system loans (ARRA)	2010-2011
8) Priority water quality studies (ARRA)	2010-2011
9) Interstate water quality initiatives	2010-2013
10) Reauthorization of Clean Water and Safe Drinking Water Acts	2010-2013
11) Building emergency response depth	2010-2013
12) e-Learning	2010-2013
13) Broadening outreach	2010-2013

Like all state agencies, DEQ has refined its focus for FY2010 due to the economic challenges of the times. We have done so by careful self-examination of core functions and services and by holding ourselves to the litmus test of our mandates. Some programs and functions have been reduced or eliminated, with an emphasis on minimizing the loss of direct services to our customers. The performance commitments made here for FY2010 demonstrate a continuity of core services to the citizens of Idaho, an eye to the challenges and opportunities of the future, and a readiness of our work force to step forward as the economy, priorities, and resources allow.



**Idaho Department of Environmental Quality
State Office
1410 N. Hilton
Boise, ID 83706
(208) 373-0502
www.deq.idaho.gov**



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