

Follow-up report 16-05F  
March 2016

# Challenges and Approaches to Meeting Water Quality Standards

Office of Performance Evaluations  
Idaho Legislature





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## Office of Performance Evaluations

Created in 1994, the legislative Office of Performance Evaluations (OPE) operates under the authority of Idaho Code §§ 67-457 through 67-464. Its mission is to promote confidence and accountability in state government through professional and independent assessment of state programs and policies. The OPE work is guided by professional evaluation and auditing standards.

## Joint Legislative Oversight Committee 2015–2016

The eight-member, bipartisan Joint Legislative Oversight Committee (JLOC) selects evaluation topics; OPE staff conduct the evaluations. Reports are released in a public meeting of the committee. The findings, conclusions, and recommendations in OPE reports are not intended to reflect the views of the Oversight Committee or its individual members.

### Senators



**Cliff Bayer**

**Steve Vick**

**Michelle Stennett**

**Cherie Buckner-Webb**

### Representatives



**John Rusche**

**Maxine Bell**

**Gayle Batt**

**Elaine Smith**

**Senator Cliff Bayer (R) and Representative John Rusche (D) cochair the committee.**

# Follow-up report



## Overview of evaluation

In response to a request by the chairs of the Senate and House resources and environment committees, our 2014 report addressed two approaches to water quality programs that were particularly important to many stakeholders in Idaho: revising water quality standards and implementing water quality trading. Specifically, the report identified impediments to revising water quality standards through conducting use attainability analyses and implementing a program for pollutant trading in Idaho.

The overall goal of our study was to provide policymakers with information about water quality programs in Idaho and possible areas where improvements were possible. The report highlighted the challenges Idaho stakeholders faced in addressing water quality standards and answered the following questions:

How were designated uses for surface waters determined and revised?

When revising water quality standards, how were use attainability analyses developed and what was the approval process?

What conditions were necessary to establish sustainable pollutant trading programs in Idaho?

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**We appreciate the assistance we received from the Department of Environmental Quality.**

**Lance McCleve conducted the study.**

**Bryon Welch conducted the quality control review.**

**Margaret Campbell copy edited and desktop published the report.**

## **Use attainability analysis**

In order to revise or remove standards for water bodies that appear to have inappropriate designated uses, states use a process called a use attainability analysis (UAA). UAAs require states to present data on whether the standards assigned to a water body are appropriate. Designed to have an extremely high threshold, a UAA must demonstrate the need to revise standards. High thresholds can result in UAAs that are expensive and time-consuming. Stakeholders play an important role in the UAA decision-making processes. However, the lack of clear state guidance presented challenges for stakeholders (1) to determine when UAAs were the best way to proceed and (2) to prepare UAAs that met EPA expectations.

Over the past 20 years, Idaho submitted six UAA-based revisions to standards for EPA review. Although any entity could conduct a UAA, the department conducted five of the six submitted. When considering revisions to water quality standards, the department has indicated its predisposition is to act conservatively. Of the resources dedicated to water quality standards, the department chose to focus its limited resources on standards where natural conditions appeared to prevent attainment of the use. The department has been relatively successful in receiving EPA approval. The EPA approved removal or revision of uses for five of the six UAAs, more than all UAAs submitted by other states in EPA Region 10 combined.

States can most effectively use their authority by ensuring that water bodies have properly designated uses and criteria. When correct uses are designated by the state, the most appropriate criteria can be applied to the water body, ensuring that any regulatory limitations are appropriate and standards will support the best uses attainable. In our 2014 report, we recommended the department complete its UAA guidance document intended to help stakeholders navigate the process.

## **Water quality trading**

Sometimes referred to as pollutant trading, water quality trading is a market-based alternative to meeting water quality requirements. In its most basic form, water quality trading involves an exchange between two dischargers—one (the credit purchaser) paying the other (the credit producer) to reduce

pollutant discharge. In turn, the discharger who reduces pollutants satisfies the paying discharger's permit requirements.

Variations in regulatory requirements and pollutant control options pose substantially different costs for dischargers trying to achieve similar levels of pollution control in the same watershed. Cost and regulatory differences among dischargers form the basis for trading. Trading is not a substitute for traditional regulatory programs but rather serves as a supplement to total maximum daily loads (TMDL) and discharge permits by providing flexibility through a market-based approach.

Trading is not always an appropriate or useful option in all parts of Idaho. For example, stakeholders developing a TMDL on the Lower Boise River were actively laying the groundwork for trading to become a viable solution to address water quality needs. In contrast, stakeholders in other parts of the state voiced mixed support for trading as a viable option for improving water quality in their area.

### Assessment of status

We assessed the status of recommendations within three categories:



**Complete:** Measurable steps have been taken to meet the intent, or an approach that diverged from the recommendation has been taken to meet the intent.



**In process:** Measurable steps have been taken that begins to meet the intent.



**No change:** No measurable steps have been taken to meet the intent.



Since the release of our 2014 report, the department has made progress on several of the preconditions for water quality trading.

## Agency response

Our review of implementation efforts found that the Department of Environmental Quality has made significant progress toward implementing our recommendation. Completion of the recommendation is in process.

### Revising water quality standards

**Recommendation:** To help Idaho’s stakeholders determine when and how a UAA should be conducted and focus resources on projects where a revision to the standards can be documented and justified, we recommend that the department complete its UAA guidance document.

**Status:** In process.

During the 2016 legislative session, legislative committees approved rule changes proposed by the department. Adding Idaho Code and Clean Water Act language into rule allowed the department to move forward with completion of its UAA guidance. With the necessary rule in place, the department will complete and issue its UAA guidance for public comment later this year and finalize the guidance following consideration of comments received.

### Water quality trading

We did not make any recommendation about water quality trading, but we identified several preconditions that Idaho needed to complete before trading could move forward. Exhibit 1 describes some of the most important preconditions. Since the release of our 2014 report, the department has made progress on several of the preconditions.



Exhibit 1

**Before trading can move forward, Idaho needs to complete several preconditions.**

Precondition	Explanation	Idaho status
Trading framework	<p>A framework that specifies the following:</p> <ul style="list-style-type: none"> <li>• Which pollutants can be traded</li> <li>• Where trades can occur</li> <li>• Trading ratios</li> <li>• Localized impacts of trading</li> <li>• Verification and monitoring of credits</li> <li>• Overall water quality conditions</li> </ul> <p>A framework that describes the function of any third-party entity who brokers the transaction of money for credit buyers and sellers.</p>	<p>The DEQ develops trading frameworks but has not completed a framework that specifies credit verification and monitoring requirements.</p> <p>The DEQ estimates that developing a trading framework will cost \$45,000–\$50,000.</p>
Mechanisms to facilitate trading	<p>Pollutant discharge permits authorize trading within an approved framework for a watershed.</p> <p>Permits must have provisions that specifically allow for trading and should clearly explain the responsibilities of credit producers and credit buyers.</p>	<p>Idaho does not yet write discharge permits and will have to rely on the EPA for trading provisions.</p> <p>The only permits that have trading provisions are general permits for aquaculture facilities.</p>
TMDL	<p>TMDLs authorizing trading must first be completed for trading to occur on an impaired water body.</p> <p>The DEQ’s pollutant trading guidance indicates pollutant credits can only be produced and sold when the pollutant reduction is beyond the requirements defined in TMDLs or the discharge permit load requirements.</p>	<p>TMDLs are developed for the watershed and are needed only when a water body is impaired. To enable trading, the DEQ needs to add trading language to future TMDLs and update existing TMDLs, if necessary.</p> <p>The TMDL under development on the lower Boise River incorporates language that supports trading programs. Several completed TMDLs have or are incorporating trading language.</p>
EPA approval	<p>The EPA must approve (1) trading frameworks by watershed, (2) trading provisions spelled out in pollutant discharge permits, and (3) language added to TMDLs.</p>	<p>The EPA maintains more oversight in Idaho than in most other states because it issues pollutant discharge permits. However, in 2014 the Legislature directed the DEQ to begin taking over the discharge permit program.</p>
Voluntary participation	<p>The statewide trading guidance developed by the DEQ clearly states that pollutant trading is voluntary. Parties trade when both are better off because of the trade.</p>	<p>Although support for trading has been mixed, a diverse range of stakeholders have voiced their support and desire to engage in trading.</p>

**The department is in the process of updating its statewide trading guidance.**

**In December 2015, the EPA approved the Lower Boise TMDLs which opens the door to begin formal trading in the watershed.**

## **Progress on water quality trading preconditions**

Over the past two years, the Idaho Department of Environmental Quality has participated with regional partners (Oregon DEQ, Washington Department of Ecology, and US EPA Region 10) to develop a set of regional recommendations for water quality trading. The department is in the process of updating its statewide guidance to reflect these regional recommendations and anticipates the document will go for public comment in March 2016 with completion of the final guidance in June 2016.

In December 2015, the EPA approved the Lower Boise TMDLs which opens the door to begin formal trading in the watershed. The department will revise its existing Lower Boise River trading framework to reflect these new TMDLs and to reflect the new regional recommendations on trading.

Although the statewide guidance is not yet complete, the department does not intend to delay the Lower Boise framework revision. Revisions to this framework will help guide efforts with the statewide guidance.

Willamette Partnership will help facilitate Lower Boise framework revisions with a technical committee from the Lower Boise Watershed Advisory Group (WAG), a process approved by the WAG at its January 2016 meeting. This process is a necessary step before phosphorus trading can begin for the Lower Boise River. Willamette Partnership has provided substantial



**Photo courtesy of Richard D. Campbell**

information regarding updates of the Lower Boise framework. Additionally, The Freshwater Trust under contract with the cities has produced much needed technical details.

Closely related to water quality trading, Boise City has completed the design of the Dixie Drain phosphorus removal facility. The project is under construction and on schedule for a summer 2016 startup.



**Dixie Drain facility under construction.**



**Dixie Drain site.**

**We noted in our 2014 report that Idaho was one of four states that had not taken over at least a portion of the discharge permit program.**

**The Idaho Legislature passed House Bill 406 in 2014 to begin the process of taking over the discharge permit program.**

**Since the report, the department has been working on significant changes to Idaho's discharge permit program.**

## **Significant change underway**

We did not evaluate or make recommendations about authorship of national pollutant discharge elimination system permits in our 2014 report. However, discharge permits were an important aspect of the discussion of both UAAs and water quality trading in that report. Since the report, the department has been working on significant changes to Idaho's discharge permit program.

In our 2014 report, we noted that Idaho was one of four states that had not taken over at least a portion of the discharge permit program. However, in 2014 the Idaho Legislature passed House Bill 406 to begin the process of taking over the discharge permit program. The process will take several years to complete. After the EPA determines that Idaho has the capacity to author its own discharge permits, permit holders will work directly with the department to obtain and renew discharge permits.

The department's application for delegated authority is due to the EPA by September 1, 2016. The department held eight negotiated rulemaking meetings between December 2014 and July 2015. The proposed rule was published September 2, 2015, for a 30-day public comment period. The Idaho Board of Environmental Quality adopted the proposed rule on November 18, 2015, and the pending rule was approved by the department's germane committees during the 2016 legislative session. A concurrent resolution is still needed for this pending rule to become effective.

The department is working to develop guidance documents, a data management system, and the required program description. The department is also working on agreements with key agencies including the EPA and the Idaho State Department of Agriculture. An additional agreement with the Idaho Department of Water Resources may be developed in the future.

## Reports of the Office of Performance Evaluations, 2013–present

Publication numbers ending with “F” are follow-up reports from previous evaluations.

Pub. #	Report title	Date released
13-01	Workforce Issues Affecting Public School Teachers	January 2013
13-02	Strengthening Contract Management in Idaho	January 2013
13-03	State Employee Compensation and Turnover	January 2013
13-04	Policy Differences Between Charter and Traditional Schools	March 2013
13-05F	Coordination and Delivery of Senior Services in Idaho	March 2013
13-06	Guide to Comparing Business Tax Policies	June 2013
13-07F	Lottery Operations and Charitable Gaming	June 2013
13-08F	Governance of EMS Agencies in Idaho	June 2013
13-09F	Equity in Higher Education Funding	June 2013
13-10F	Reducing Barriers to Postsecondary Education	June 2013
13-11	Assessing the Need for Taxpayer Advocacy	December 2013
13-12	The Department of Health and Welfare’s Management of Appropriated Funds	December 2013
14-01	Confinement of Juvenile Offenders	February 2014
14-02	Financial Costs of the Death Penalty	March 2014
14-03	Challenges and Approaches to Meeting Water Quality Standards	July 2014
14-04F	Strengthening Contract Management in Idaho	July 2014
15-01	Use of Salary Savings to Fund Employee Compensation	January 2015
15-02	The State’s Use of Legal Services	February 2015
15-03	The K-12 Longitudinal Data System (ISEE)	February 2015
15-04	Idaho’s Instructional Management System (Schoolnet) Offers Lessons for Future IT Projects	March 2015
15-05	Application of the Holiday Leave Policy	March 2015
15-06	Distribution of State General Fund Dollars to Public Health Districts	December 2015
15-07F	State Employee Compensation and Turnover	December 2015
16-01	Design of the Idaho Behavioral Health Program	January 2016
16-02	Risk of Bias in Administrative Hearings	February 2016
16-03F	Confinement of Juvenile Offenders	February 2016
16-04F	The State’s Use of Legal Services	March 2016
16-05F	Challenges and Approaches to Meeting Water Quality Standards	March 2016
16-06F	Assessing the Need for Taxpayer Advocacy	March 2016

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