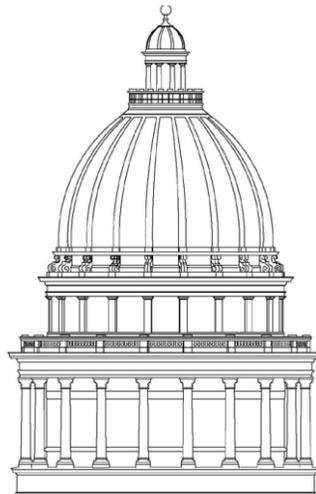


REPORT TO THE
UTAH LEGISLATURE

Number 2020-04



**An In-Depth Budget Review of the
Department of Environmental Quality**

August 2020

Office of the
LEGISLATIVE AUDITOR GENERAL
State of Utah



STATE OF UTAH

Office of the Legislative Auditor General

315 HOUSE BUILDING • PO BOX 145315 • SALT LAKE CITY, UT 84114-5315
(801) 538-1033 • FAX (801) 538-1063

Audit Subcommittee of the Legislative Management Committee

President J. Stuart Adams, Co-Chair • Speaker Brad R. Wilson, Co-Chair

Senator Karen Mayne • Senator Evan J. Vickers • Representative Brian S. King • Representative Francis D. Gibson

KADE R. MINCHEY, CIA, CFE
AUDITOR GENERAL

August 18, 2020

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report, **An In-Depth Budget Review of the Department of Environmental Quality** (Report #2020-04). An audit summary is found at the front of the report. The objectives and scope of the audit are explained in the Introduction.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

A handwritten signature in black ink that reads "Kade minchey".

Kade R. Minchey, CIA, CFE
Auditor General



PERFORMANCE AUDIT

▶ AUDIT REQUEST

The Legislative Audit Subcommittee requested that we conduct an in-depth budget review of the Department of Environmental Quality (DEQ).

▶ BACKGROUND

The Department of Environmental Quality (DEQ) mission is to safeguard and improve Utah's air, land, and water through balanced regulation.

The department has five divisions to help accomplish their mission. The five divisions oversee and regulate: air, water, hazardous waste, superfund sites, radiation, and other environmental concerns. DEQ has been granted primacy by the Environmental Protection Agency (EPA) to enforce the federal Clean Air Act, Clean Water Act, Safe Drinking Water Act, and the Resource Conservation and Recovery Act.

In addition, as an agreement state with the Nuclear Regulatory Commission (NRC), Utah has been granted authority to regulate certain uses of radioactive materials.

In-Depth Budget Review of DEQ



KEY FINDINGS

- ✓ The Division of Drinking Water needs to improve its enforcement of regulations.
- ✓ The Division of Water Quality needs to improve its use of the data they collect in order to determine compliance of the entities they regulate.
- ✓ Aboveground storage tanks (ASTs) are not regulated and may pose environmental risks.

DEQ Should Develop and Track Performance Measures on Entities they Regulate

We identified several programs within DEQ that highlight the need to improve their ability to track and monitor from the time inspections and violations occur until the entity returns to compliance.



RECOMMENDATIONS

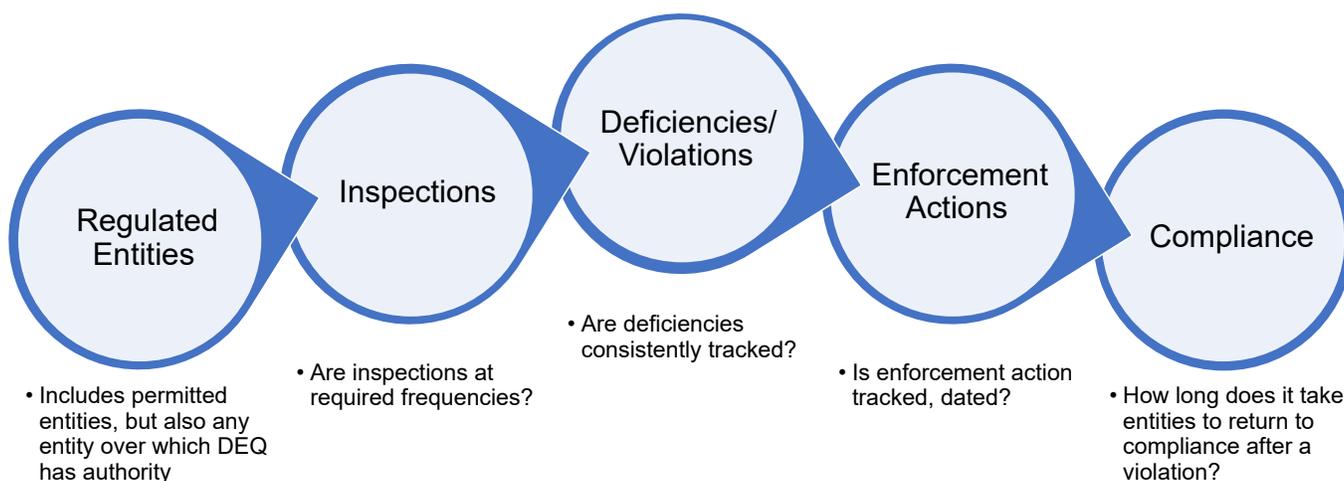
- ✓ DEQ divisions should improve their ability to track and monitor from the time inspections and violations occur until the entity returns to compliance.
- ✓ The Department of Environmental Quality should work with the Legislature to review and consider some degree of regulation for aboveground storage tanks.
- ✓ DEQ should create a rule in Utah Administrative Code that will create a classification for landfills that will allow them to legally accept exploration and production waste.



REPORT SUMMARY

Evaluating the Regulatory Framework Was a Key Focus of Our Audit Work

A major theme of our review of each division was DEQ’s regulatory effectiveness and efficiency. Where we were able to collect data for those elements, the report identifies some of DEQ’s effectiveness and efficiency at meeting its regulatory mission. We used the following framework to evaluate DEQ’s oversight efficiency and effectiveness.



DEQ Programs May Want to Impose Fines in order to have Entities become Compliant

We identified several programs who have struggled getting entities to become compliant with regulations. DEQ should consider using fines as a way to enforce compliance.

Unregulated Aboveground Storage Tanks May Pose Environmental Risks

We found that Aboveground Storage Tanks (ASTs) are not regulated by DEQ. Many harmful and expensive releases have occurred from ASTs over the years. Some have never been fully remediated. We found several surrounding states regulate ASTs in varying degrees.

DEQ Should Create a Rule in Utah Administrative Code that will create a Classification for Landfills to Legally Accept Exploration and Production Waste.

We found that in 2019, statute was passed that made exploration and production waste a solid waste to agree with the EPA’s definition. With this change, Class IIIb landfills that were accepting this waste were acting as a Class V landfill without the proper permit.

REPORT TO THE UTAH LEGISLATURE

Report No. 2020-04

An In-Depth Budget Review of the Department of Environmental Quality

August 2020

Audit Performed By:

Audit Manager	Darin Underwood, CIA
Audit Supervisor	David Gibson, CISA
Audit Staff	Matt Harvey, CFE Hillary Galvin

Table of Contents

Chapter I

Introduction	1
In-Depth Budget Reviews Are Statutorily Required, Risks Identified	2
Budget Review Summarizes Revenues, Expenses, and Fees	2
DEQ Implemented Recommendations Of the 2012 Radiation Audit	10
Evaluating the Regulatory Framework Was a Key Focus of Our Audit Work	10
Scope and Objectives.....	12

Chapter II

DEQ Division of Drinking Water Can Improve Water Systems’ Time to Compliance	13
DDW Oversees Utah’s Drinking Water Systems	14
While Compliance Has Improved, DDW Enforcement Is Still Lacking.....	15
DDW Should Regularly Review Compliance Exemptions.....	22
Recommendations.....	24

Chapter III

Division of Environmental Response And Remediation Inspections Are Generally Good; Opportunities Exist to Review Responsibilities	25
Heightened Oversight of Aboveground Storage Tanks Should Be Reviewed.....	25
DERR Can Improve Upon Its Generally Good Inspection Practices	30
Recommendations.....	34

Chapter IV

Waste Management and Radiation Control Inspections Can Improve	35
Inspections at Two State Programs Are Not Always Performed	35
WMRC-Delegated Programs Appear to Have Good Inspection and Compliance Rates	43
Class IIIb Landfills Need to Be Reclassified.....	48
Recommendations.....	49

Chapter V

DEQ's Division of Water Quality Can Improve Regulatory Data Tracking 51

DWQ Regulates Utah's Waters 51

DWQ's Surface and Storm Water Sections Lack Consistent Data Tracking 52

DWQ's Groundwater Section Data Tracking Can Improve 54

Recommendations..... 55

Appendices 57

Appendix A

A Follow-up of the Performance Audit of the Division of Radiation
Control (Report 2012-10) 59

Appendix B

Recommendations from Conference of Radiation
Control Program Directors, Inc. 65

Agency Response 69

Chapter I

Introduction

The mission of the Department of Environmental Quality (DEQ) is to safeguard and improve Utah's air, land, and water through balanced regulation. DEQ carries out its mission through the combined efforts of its five operational divisions.

DEQ has been granted primacy by the Environmental Protection Agency (EPA) to enforce the federal Clean Air Act, Clean Water Act, Safe Drinking Water Act, Comprehensive Environmental Response Compensation, and Liability Act, and the Resource Conservation and Recovery Act. In addition, as an agreement state with the Nuclear Regulatory Commission (NRC), Utah has been granted authority to regulate certain uses of radioactive materials.

The five operational divisions oversee and regulate air, water, hazardous waste, super fund sites, radiation, and other environmental concerns. This chapter discusses the following:

- The statutory mandate for our office to conduct in-depth budget reviews and provide an overview of the risks we identified during the audit
- DEQ's structure, revenues, and expenses from fiscal years 2015 through 2019
- DEQ's permit and program fees generated from fiscal years 2015 through 2019
- An audit follow-up of a 2012 legislative audit

Additionally, *A Performance Audit of the Division of Air Quality* (Report #2020-05) was conducted in conjunction with this in-depth budget review.

The Department of Environmental Quality (DEQ) is responsible for safeguarding and improving Utah's air, land and water.

In-Depth Budget Reviews Are Statutorily Required, Risks Identified

The Legislative Audit Subcommittee prioritized this audit, which provides a review of DEQ's budget and performance. To complete this review, we conducted a risk assessment of the department's structure, controls, efficiencies, revenues, and spending from fiscal years 2015 through 2019. The chapters in this report reflect our risk analysis and statutory language for in-depth budget reviews.

Utah Code 36-12-15.1 requires the Office of the Legislative Auditor General to annually audit the appropriations of at least one entity. The intent of these audits, as outlined in statute, is to determine how efficiently and effectively the entity has used its appropriated funds. These and other statutory requirements for in-depth budget reviews are shown in Figure 1.1.

Figure 1.1 In-Depth Budget Audits Require a Review of Appropriations and Spending. The following is a summary of statutory language defining the required elements of in-depth budget reviews.

- The entity's appropriation history
- The entity's spending and efficiency history
- Historic trends in the entity's operational performance effectiveness
- Whether the entity's size and operations are commensurate with its spending history
- Whether the entity is diligent in its stewardship of state resources

Source: *Utah Code 36-12-15.1*

To conduct this audit, we performed a risk-based review of DEQ's operations and identified key concerns related to the department's budget and operations. The fulfillment of statutory requirements guiding this review can be found in each chapter of this report.

Budget Review Summarizes Revenues, Expenses, and Fees

DEQ has six divisions, an administrative division and five operational divisions that implement both federal and state statutes concerning the environment. The department receives both state and federal funding as well as revenue from fees to accomplish state and

We performed a risk assessment of the department's structure, controls, efficiencies, revenues.

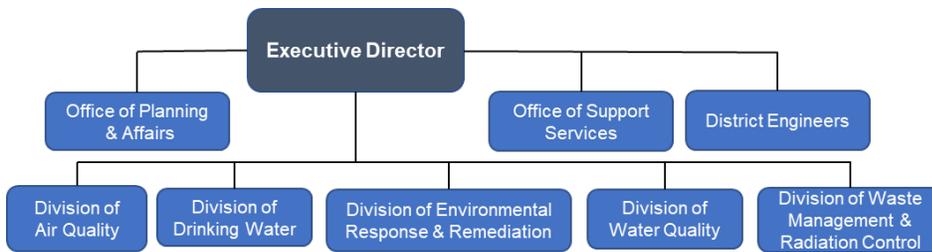
Statute specifies elements that are to be covered in an in-depth budget review.

federal mandates. The department receives the majority of its funding from three sources: federal funds, state general funds, and restricted accounts. This section provides a brief review of DEQ’s revenues, expenses, and fees from fiscal years 2015 through 2019.

DEQ Has Five Main Divisions

The department is charged with implementing and enforcing state and federal environmental rules and regulations. Figure 1.2 provides an organizational view of the department and its divisions. The focus of DEQ’s five divisions is administering programs that protect Utah’s environment.

Figures 1.2 DEQ Administration Oversees Five Divisions with Diverse Mandates. The divisions have federal as well as state mandates that must be followed.



Source: Auditor Generated

The department, along with its divisions, is responsible for monitoring, issuing permits, inspecting, enforcing, partnering, assisting, and funding to protect and uphold state and federal regulations. The department has four different boards that adopt and enforce rules related to particular environmental areas. The department also has one advisory board that seeks the best available science to identify legislative actions and helps prioritize potential legislation that will improve air quality.

Majority of DEQ Funding Comes From Three Major Sources

Federal funds, general funds, and restricted accounts¹ are the three largest funding sources for the department, accounting for 83 percent

¹ Restricted accounts are defined in statute as “collections that are deposited, by law, into a separate fund . . . for a specific program or purpose.”

The Department of Environmental Quality (DEQ) along with its five divisions, is responsible for monitoring, issuing permits, inspecting and enforcing state and federal regulations.

of DEQ’s funding in fiscal year 2019. Figure 1.3 shows the total funding for the department from the various sources as well as the percentage of the total funding.

Figure 1.3 Federal Funds, Restricted Funds, and General Fund Appropriations Fund More Than 80 Percent of DEQ’s Operations. Federal funds make up 33 percent of the department’s budget.

Funding Sources	2019 Funding	Percentage of DEQ Funding
Federal	\$23,495,000	32.9%
General Fund (Ongoing and One-Time)	20,501,200	28.7
Restricted and Other Accounts*	14,814,200	20.7
Dedicated Credits	10,604,500	14.8
Beginning Non-Lapsing	1,856,500	2.6
Transfer	239,100	0.3
Total	\$71,510,500	100%

*Source: Auditor summary of Legislative Fiscal Analyst COBI data.
 DEQ has account types that include restricted and expendable special revenue accounts. These numbers are rounded and do not include lapsing and closing non-lapsing fund balances.

Revenue from restricted accounts comprise 21 percent of funding and comes from permit, registration, and disposal fees. It should be noted that fines levied by the department go back to the general fund or to some restricted accounts.

DEQ Six Division-Level Budgets Vary Significantly. Figure 1.4 shows the budgets of DEQ’s six divisions. This data includes all funding sources for the divisions. The Division of Air Quality’s (DAQ) budget increased by 46 percent, the largest increase since 2015. A large portion of this funding increase, which are pass-through funds, was caused by various federal and state incentive programs to improve the state’s air quality. The air quality incentive programs will be discussed further in Chapter II of Report 2020-05.

The Division of Drinking Water had the second largest budget percentage increase from fiscal years 2015 through 2019, increasing by 16 percent during this time.

Federal funding provided DEQ with the highest percentage of funding in 2019.

Figure 1.4 DEQ’s Budget Appropriations for its Six Divisions for Fiscal Years 2015 through 2019. All six division’s appropriation budgets have increased since 2015.

Divisions	2015	2016	2017	2018	2019	%Chng
Executive Director	\$5.2	\$5.6	\$5.6	\$5.6	\$5.6	8%
Air Quality	15.8	14.3	15.9	17.5	23.0	46
Drinking Water	5.4	5.6	6.7	5.7	6.2	16
Environmental Response	7.0	6.7	6.9	7.5	7.3	4
Water Quality	11.3	10.8	11.0	11.2	12.2	8
Waste Mgt & Radiation Ctrl ²	10.3*	9.2	9.1	9.5	9.7	5**

Source: FINET

* The combined budget amount of both divisions before they were consolidated in 2015

** Percent change is from 2016. The percent change in WMRC’s budget is (-7%) from 2015 to 2019 but in 2015 they were two separate divisions.

The Division of Waste Management and Radiation Control’s budget increased 5 percent during this time from 2016 to 2019 after the two divisions were consolidated. Because of the consolidation, some programs were moved from the WMRC division to other DEQ divisions as well as the x-ray program being reduced to two inspectors. DEQ’s budget growth would be in line with other state agencies’ budget growth except for the fact the DAQ received extra pass-through funds for air quality incentive programs.

DEQ’s Appropriations Have Increased. Figure 1.5 shows a history of the department’s appropriations for the last five years.

The Division of Air Quality’s budget has increased 46 percent for 2015 – 2019.

² The radiation division and waste management divisions were combined July 1, 2015. The 2015 budget numbers are a combination of the divisions.

Funding from Federal and General Funds has increased since 2015.

Figure 1.5 DEQ Funding from Federal Fund, General Fund, Restricted and Other Accounts, and Other Sources from Fiscal Year 2015 through 2019. Amounts are in millions of dollars.

Revenues	2015	2016	2017	2018	2019
Federal	\$17.8	\$16.8	\$17.0	\$18.1	\$23.5
General Fund	14.6	14.2	14.5	15.2	20.5
Restricted and Other Accounts	12.9	12.2	14.7	14.3	14.8
Dedicated Credits	10.6	8.6	9.1	9.1	10.6
Beginning Non-Lapsing	0.5	1.8	2.0	2.2	1.9
Transfer	0.5	0.9	0.4	0.3	0.2
Total	\$56.9	\$54.5	\$57.7	\$59.2	\$71.5

Source: Legislative Fiscal Analysts 2015 and 2019 COBI publications

The largest increase has been in federal appropriations, which increased 33 percent over this time. General funding increased 29 percent over the same time. A large portion of the federal and state funding is pass-through funds to be used to improve air quality and are not used for operations. DEQ’s funds are carried forward from previous year funding, approved as dedicated credits,³ or passed through as transfers⁴ for a purpose outlined in statute.

In addition, other accounts that can be considered enterprise funds are included. DEQ administration has oversight of these funds, which are to be used similarly to a private business in that the costs of goods and services are to be recovered. The following are examples: water development security fund, drinking water loan program, state revolving fund for drinking water projects, and hardship grant programs for drinking water projects. It is important to note that, if enterprise funds receive any federal funds, these cannot be comingled with state funds.

DEQ’s Revenue Generated from Permits and Fees Has Increased Since Fiscal Year 2015. Figure 1.6 shows the revenues generated from DEQ’s five divisions. Revenues from fees and permits

³ Dedicated credits are collected by an agency to fund its operations. These credits may include revenue from permits, fees, fines, or sales of goods or services and can be expended for any purpose within a program or line-item.

⁴ Pass-through funding is defined in *Utah Code* 63J-1-220 as money appropriated to a state agency that is intended to be passed to a local government entity, private organization, or person and can be one-time or ongoing.

have increased for all five divisions from 2015 to 2019. The Division of Water Quality (DWQ) revenue from fees and permits increased by 55 percent over the five-year period.

Figure 1.6 Overall Revenues Generated from Fees and Permits from DEQ’s Five Divisions from 2015 to 2019. Revenues from fees and permits increased 12 Percent during this time. The revenues from fees and collections in this figure are for operational budgets only and not for the restricted funds.

	2015	2016	2017	2018	2019
DAQ	\$5,284,617	\$5,536,738	\$5,524,822	\$5,412,471	\$6,170,487
DDW	185,928	187,263	185,409	195,356	231,385
DERR	624,591	678,370	737,710	848,580	803,600
DWQ	1,107,173	1,159,505	1,480,038	1,503,053	1,715,791
WMRC	1,473,484	730,104	1,006,936	639,385	773,248
Total	\$8,675,794	\$8,291,979	\$8,934,914	\$8,598,845	\$9,694,512

Source: Auditor Analysis

DWQ’s storm water fee had the largest increase in terms of amount from 2015 to 2019. The total amount increase over the five years was \$525,250. The main reason for the increase is due to the increased construction in the state. Revenues generated from permit and fees can change year to year depending on many factors that are outside the control of the department.

DEQ’s Expenditures Differ Among the Divisions

Reviewing the expenditures of DEQ’s six divisions provides insight into their operations. Spending within these budgets varies significantly. Figure 1.7 shows division spending and the percentage of spending from fiscal years 2015 through 2019. For example, in 2019, DAQ spent \$23 million compared to the DDW, which spent \$6 million. In comparison only DERR’s⁵ overall expenses decreased over the five-year period.

⁵ The Division of Environmental and Remediation (DERR)

The Division of Water Quality’s (DWQ) revenue from fees and permit has increased (55%) the most since 2015.

DWQ’s revenues from permits and fees saw a large increase from 2015 – 2019 because of the increased construction the state has experienced.

Divisional spending at DEQ from 2015 to 2019 shows that there is a large variation among the divisions.

Figure 1.7 Division Expenditures Increased for Four Divisions Since Fiscal Year 2015. The Division of Air Quality had the largest amount of expenses of the divisions but much of the expenses can be attributed to pass-through funds and air quality incentive programs.

Divisions	2015	2016	2017	2018	2019	%Chng
Executive Director	\$5.2	5.6	5.4	5.6	5.6	8%
Air Quality	15.9	14.5	15.9	17.8	23.0	44
Drinking Water	5.2	5.5	5.6	5.6	6.0	15
Environmental Response	6.6	6.3	6.4	6.6	6.4	-4
Water Quality	11.2	10.7	10.9	11.2	12.2	9
Waste Mgt & Radiation Ctrl ⁶	9.6*	8.1	8.2	8.4	9.0	11**

Source: Legislative Fiscal Analyst

* The combined expenditure amount of Waste Management and Radiation divisions before they were consolidated in 2015.

** Percent change is from 2016. The percent change in WMRC's budget is (-11%) from 2015 to 2019 but in 2015 they were two separate divisions.

DAQ had the highest percentage of increase in expenses from 2015 to 2019 at 44 percent, much of which can be attributed to air quality incentive programs.

Divisional Expenses for Attorney General Services Are Significant

Because the environmental section of the Utah Attorney General's Office (AGO) provides multiple services to the DEQ, we included it in our review. The following are examples of the services provided to the department and its divisions.

- Responding to request for legal assistance, including legal reviews, research, and responding to inquiries
- Assisting the DEQ with the implementation of environmental regulations
- Representing the DEQ in administrative hearings, adjudicative proceedings, civil litigation, and appeals before state and federal courts

The Attorney General's Office (AGO) provides many vital legal services to DEQ and its divisions.

⁶ The radiation division and waste management division were combined on July 1, 2015.

- Providing legal support in rulemaking, records requests (subpoenas and Government Records Access and Management Act requests), and legislation
- Representing the DEQ Executive Director’s Office and Division Directors
- Advising DEQ’s statutory boards on rulemaking, enforcement, and other functions and duties

The Legislature determines the level of funding for the services. Figure 1.8 shows the divisions’ expenses for fiscal years 2015 through 2019 for AGO services. Overall, AGO expenses have increased by 8 percent.

Figure 1.8 Division Expenditures for Attorney General Services for Fiscal Years 2015 through 2019. Overall expenses for the DEQ divisions have increased 8 percent over 5 years.

Div.	2015	2016	2017	2018	2019	%Chng
EDO	211,675	234,339	251,663	294,500	147,831	-30%
DAQ	220,200	305,251	248,968	262,200	307,855	40
DERR	244,300	239,140	237,805	198,900	174,103	-29
DDW	27,800	26,404	27,909	21,400	52,662	89
DWQ	136,600	149,725	176,212	197,000	195,882	43
WMRC	230,100	235,540	241,943	211,300	290,867	26
Total	\$1,113,247	\$1,231,350	\$1,255,364	\$1,221,741	\$1,199,772	8%

Source: Legislative Fiscal Analyst

The Division of Drinking Water (DDW) had the largest increase in the percentage of expenses for AGO services.

Even though the Division of Drinking Water (DDW) expenses were the lowest among the operational divisions, its percentage of total AGO expenses increased the most from fiscal year 2015 through 2019. The overall AGO expenses of the Division of Environmental Response and Remediation (DERR) decreased by 29 percent over the same period.

Next, Figure 1.9 shows the Fiscal Year 2020 budget increases for AGO services for each division. Since its one of the department’s responsibilities is to regulate and enforce state and federal environmental policies, AGO’s services are in high demand.

Figure 1.9 Fiscal Year 2020 Budget Appropriation Increases for Attorney General Services by Division. The Division of Air Quality’s budget increased the most among the divisions for AGO services.

Appropriation budget amounts are set by the Legislature for DEQ’s divisions.

Divisions	2019-2020	Percent of Total
EDO	\$111,400	23%
DAQ	117,900	24
DDW	9,800	2
DERR	81,500	17
DWQ	74,200	15
WMRC	87,300	18
Total	\$ 482,100	100%

Source: COBI

The AGO attorneys aid DEQ with permitting and enforcement actions. While attorneys do not review every permit or enforcement action, divisions may request assistance for such actions as drafting permit and enforcement document templates or language for specific permit and enforcement conditions.

DEQ Implemented Recommendations Of the 2012 Radiation Audit

In 2012, our office completed *A Performance Audit of the Division of Radiation Control* (report 2012-10). Since the 2012 audit, the division merged with the hazardous waste division and is now the Division of Waste Management and Radiation Control (WMRC).

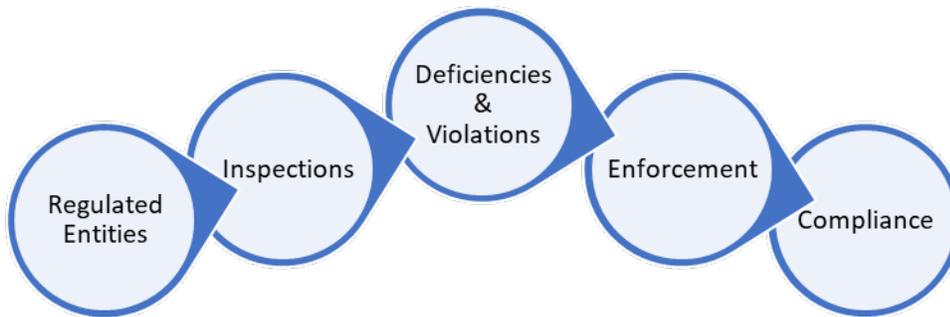
Utah Code 36-12-15(10) directs our office to follow up on any previous audit recommendations to ensure they were implemented. Six recommendations in the 2012 audit report were directed to the division and two were submitted to the Legislature for consideration. Appendix A of this report summarizes the division recommendations and implementation status.

Evaluating the Regulatory Framework Was a Key Focus of Our Audit Work

DEQ’s regulatory effectiveness and efficiency were major themes of our review of each division. As shown in Figure 1.10, elements of this framework are tied together. Where we were able to collect data,

this report identifies DEQ’s effectiveness and efficiency in meeting its regulatory mission.

Figure 1.10 Report’s Regulatory Framework for Evaluation of DEQ Oversight Efficiency and Effectiveness. Throughout the report, we revisit this framework to show how divisions tracked essential elements of its regulatory processes.



Source: Auditor Generated

Each framework element is described below.

- **Regulated Entities** – We requested data on any entity that fell within DEQ’s regulatory jurisdiction. Specifically, we assessed whether DEQ tracked entity-specific regulatory activities back to the individual entities.
- **Inspections** – We requested data on any oversight activity that could result in a deficiency finding for the regulated entity. We used this data to identify whether inspections occurred at required frequencies and to tie inspections to other regulatory activities.
- **Deficiencies and Violations** – We requested data on entities’ regulatory deficiencies identified by an inspection or other method. Specifically, we assessed whether deficiencies were tracked from inspection activities to a date of compliance.
- **Enforcement** – We requested data on any enforcement action taken against a regulated entity. Specifically, we assessed whether enforcement data was tied to specific deficiencies.
- **Compliance** – We requested data showing when regulated entities returned to compliance after a documented deficiency or violation was identified.

This tear drop will be used throughout this report when discussing how well the divisions are regulating.

Ultimately, we believe that tracking the above data helped identify how effectively and efficiently DEQ's oversight activity brought regulated entities into compliance. We acknowledge that permitting entities is a large portion of DEQ's work. This audit did not concentrate on DEQ's permitting operations but focused on the inspection and compliance processes that DEQ divisions regulate. Since DEQ is a regulatory agency, we wanted to determine if required inspections were being completed as well as how well DEQ enforced entities' return to compliance when violations were accessed.

Scope and Objectives

This audit was prioritized in accordance with *Utah Code* 36-12-15.1, which authorizes in-depth budget reviews of state entities, as prioritized by the Legislative Audit Subcommittee. Accordingly, this audit was conducted to assess DEQ's budget and programs. Chapter I of this report has addressed DEQ's mission, structure, budget, revenue, and expenses. The remaining chapters address the following issues, identified during our in-depth budget review.

- Chapter II focuses on the Division of Drinking Water (DDW) to determine how well inspections of the entities they regulate are occurring, as well as their enforcement of entities that were out of compliance.
- Chapter III focuses on whether regulation is needed of above-ground storage tanks (AST) that currently are not regulated by the state. In addition, the chapter focuses on the Division of Environmental Response and Remediation's (DERR) inspection practices and enforcement.
- Chapter IV looks at programs within the Division of Waste Management and Radiation Control (WMRC) to determine if required inspections were occurring as well as enforcement of entities out of compliance.
- Chapter V evaluates the Division of Water Quality (DWQ) to determine how well inspections of the entities they regulate are occurring, as well as their enforcement of entities that were out of compliance.

This in-depth budget review reports on risks identified in various divisions and programs throughout DEQ.

Chapter II

DEQ Division of Drinking Water Can Improve Water Systems' Time to Compliance

The Department of Environmental Quality's (DEQ) Division of Drinking Water (DDW) has increased enforcement, but still needs to improve in cases where water systems are not correcting deficiencies. DDW can implement time to compliance tracking to help improve its regulatory processes for returning water systems to compliance. DDW also needs to periodically review deficiency exceptions granted to water systems.

Lack of enforcement has allowed significant water system deficiencies to go uncorrected for years, possibly because DDW has never issued a fine or penalty. Deficiencies can allow contaminants from sources like irrigation water, dead animal carcasses, sewage, and other sources to contaminate a water supply and sicken those who drink it. We found that DDW had 115 significant deficiencies that went unresolved for 5 years or longer, and that 49 water systems currently have had at least one unresolved deficiency for longer than a year. DDW's new director has increased enforcement and the median time to compliance has decreased. That said, deficiency and violation tracking and reporting could help the division continue to improve water system compliance.

As discussed in Chapter I, we used a framework to analyze the effectiveness of DEQ's regulatory oversight. The framework relied heavily on DEQ data during the audit. Because DDW data was extensive, we were better able to analyze the effectiveness of its regulatory activities. The teardrop figure in the margin shows DDW-provided data for each regulatory element in the framework.

Deficiencies can allow contaminants from sources like dead animals, raw sewage, irrigation water, and other sources into drinking water.



A water system is any public or private entity serving water to at least 15 connections or serving an average of at least 25 people per day for at least 60 days per year.

DDW Oversees Utah's Drinking Water Systems

DDW is governed by both federal and state Safe Drinking Water Acts and is responsible for overseeing Utah's drinking water systems. A water system is any public or private entity that

- provides water to at least 15 service connections or
- serves an average of at least 25 people daily for at least 60 days out of the year.

Even if the system serves a privately owned community (a resort, for example), the system is still regulated by DDW.

As part of DDW's regulatory responsibilities, the division is required to evaluate a system's water sources, treatment, distribution, storage, management, and other system components. When a system does not meet Safe Drinking Water standards, DDW issues deficiencies and violations.

For this chapter, we considered only significant deficiencies in our analyses of water system data. Significant deficiencies are defined in *Utah Administrative Rule* (R309-215-15(22)(b)) and include the following.

A defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that EPA determines to be causing, or has the potential for causing the introduction of contamination into the water delivered to consumers.

Deficiencies can become failure-to-fix violations if DDW finds that the water system has not corrected the deficiencies in a timely manner.

A recent example of a significant deficiency at the Magna Water District sparked a boil order for Magna and parts of West Valley City and Salt Lake City. A screen had reportedly been removed on a water tank overflow drain-pipe and a racoon had entered the tank and died.

While deficiencies are not required to be reported to the EPA, violations are. Violations range from health-based issues like unhealthy contaminant levels to monitoring and reporting requirements like taking water samples and submitting sample results to DDW.

Figure 2.1 identifies the number of water systems in Utah by size and shows the average time systems of those sizes take to correct deficiencies and violations.

Figure 2.1 The Majority of Utah Water Systems Serve Less than 500 Consumers. Smaller systems tend to take longer to resolve violations, while system size appears to have less of an impact on days to compliance for deficiencies.

System Size	Number	Population Size	Average Days to Compliance	
			Deficiencies	Violations
Very Large	10	>100,000	287	36
Large	119	>10,000	194	98
Small	219	>500	256	118
Very Small	1,596	<=500	265	140
Total	1,944	-	254	131

* System deficiency and violation data are for calendar years 2015 – 2019.
 ** Deficiencies in this table are only significant deficiencies as defined by DDW.
 Source: DDW data

Most water systems are very small and tend to take longer to resolve violations.

As shown in Figure 2.1, larger systems tend to resolve violations more quickly than smaller systems. Very small systems, serving 500 or fewer consumers, are more likely to allow violations to go uncorrected longer. Reasons given for uncorrected issues is that smaller systems lack the expertise that larger systems have or have full time paid operators.

Figure 2.1 also shows that the time to compliance for significant deficiencies is greater than violations in every system size category. One possible reason for the difference is that violations are reported directly to the U.S. Environmental Protection Agency while deficiencies mostly stay with DDW. Deficiencies also focus more on physical facilities issues, whereas violations often result from monitoring and reporting issues or contaminants found in systems’ drinking water samples.

While Compliance Has Improved, DDW Enforcement Is Still Lacking

DDW has improved the time it takes for water systems to correct deficiencies and violations. Deficiency and violation enforcement actions were historically low compared to recent years. The median

Drinking water contamination led to deaths in Flint, Michigan in 2014-15 and in Milwaukee, Wisconsin in 1993.

Division of Drinking Water data since 2005 shows 115 significant deficiencies that went unresolved for over 5 years.

time to compliance has gone from 1,020 days in 2005 to 74 days in 2019. But despite the recent increase in enforcement, some systems continue to be deficient. Those systems could be incentivized to comply sooner if DDW used its penalty authority. As mentioned earlier in the chapter, DDW reported it has never issued a fine or penalty for a violation. DDW could also include a time to compliance measure in its performance tracking.

Uncorrected deficiencies and violations have the potential to lead to water contamination and public health problems. Contamination issues led to 12 reported deaths in Flint, Michigan in 2014 and 2015 and 69 reported deaths in Milwaukee, Wisconsin in 1993. The recent water boil order for Magna and parts of other Utah cities is a closer-to-home example of a deficiency leading to contaminants (a racoon) entering the water supply. In that case, the racoon had reportedly not been dead in the water supply long enough to decay and cause serious health concerns.

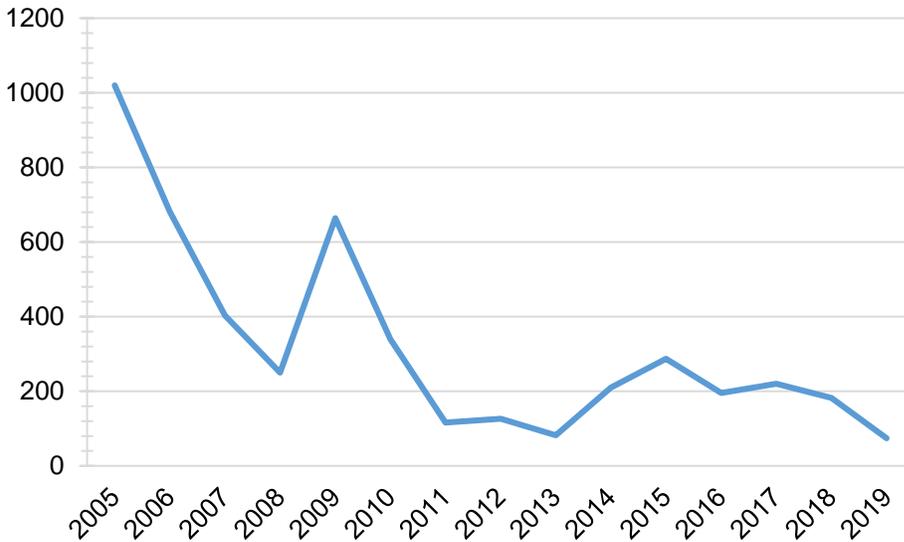
DDW Has Improved Water System Compliance In Recent Years

In the past, some water systems took years to resolve significant deficiencies. According to DDW data since 2005, 115 significant deficiencies went unresolved for over 5 years.

One example of a long-time unresolved deficiency happened in American Fork City's water system. The deficiency was an unsecure structure for a water supply at Timpanogos Cave. The deficiency went uncorrected for 12 years until it was resolved in 2016. Another example of a long-time unresolved deficiency for a smaller water system occurred at Lakeside Resort. The system had a major issue with standing water in a drinking water spring collection area (which can cause water contamination). That deficiency went uncorrected for 18 years until February 2020. While we heard no reports of either deficiency causing serious harm, DDW's own standards indicate that the deficiencies were an unnecessary risk to public health for what we consider to be an excessive amount of time.

Water systems have been resolving significant deficiencies more quickly in recent years. Figure 2.2 shows an improving trend of water systems correcting deficiencies in shorter amounts of time.

Figure 2.2 Median Time to Compliance for Significant Deficiencies Is Decreasing. According to DDW deficiency data, median time to compliance has decreased from 1,020 days in 2005 to 74 days in 2019.



Source: DDW deficiency data

As shown above in Figure 2.2, the median time for water systems to correct significant deficiencies has been improving. In recent years, the median time to compliance is well below one year. That said, some systems are still slow to resolve significant deficiencies as will be discussed in the next section.

DDW Enforcement Did Not Sufficiently Address Significant Deficiencies

DDW appears to have taken enforcement action on a small percentage of water system deficiencies and violations. We estimate that DDW took enforcement action on 10 percent of significant deficiencies and 4 percent of violations since 2015. To estimate the enforcement, we collected data on all deficiencies, violations, and enforcement actions for the last five years. Where a deficiency or violation was followed by an enforcement action for the same water system within a year, we considered the enforcement to be tied to the deficiency or violation(s).

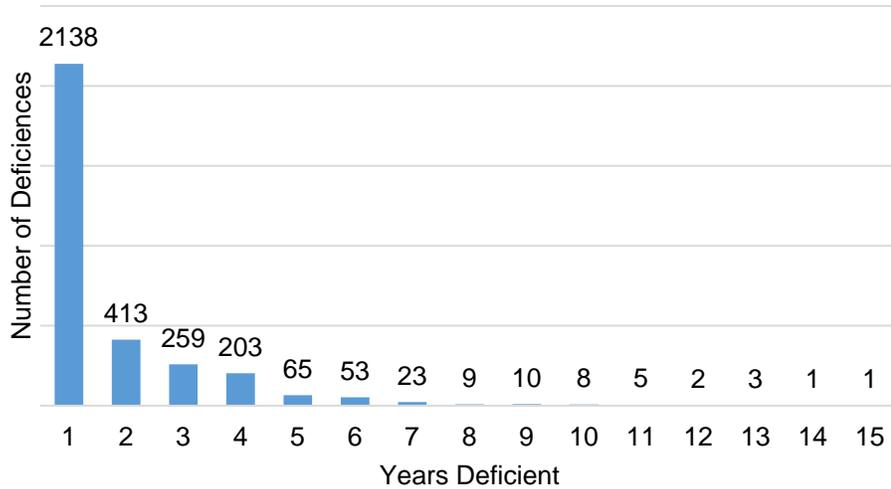
Although water systems resolve many deficiencies without enforcement, some systems allow deficiencies to linger and present health risks to their populations. Potential health risks could be as mild

Median time to compliance has been decreasing since 2005.

We estimate DDW took enforcement action on 10 percent of deficiencies and 4 percent of violations.

as vomiting or as severe as death. Figure 2.3 shows the significant deficiencies that took longer than one year to resolve.

Figure 2.3 Data Since 2005 Shows that While Most Significant Deficiencies Were Resolved Within a Year, Many Deficiencies Took Longer. Of the 3,193 resolved deficiencies on record, 1,055 (33 percent) took longer than one year to resolve.



Source: DDW deficiency data

Of all deficiencies since 2005, 29 percent took between 1 to 5 years and 4 percent took over 5 years to reach compliance.

While most deficiencies were corrected in less than one year, 940 cases (29 percent) took between one to five years to correct and 115 cases (4 percent) took over five years to correct.

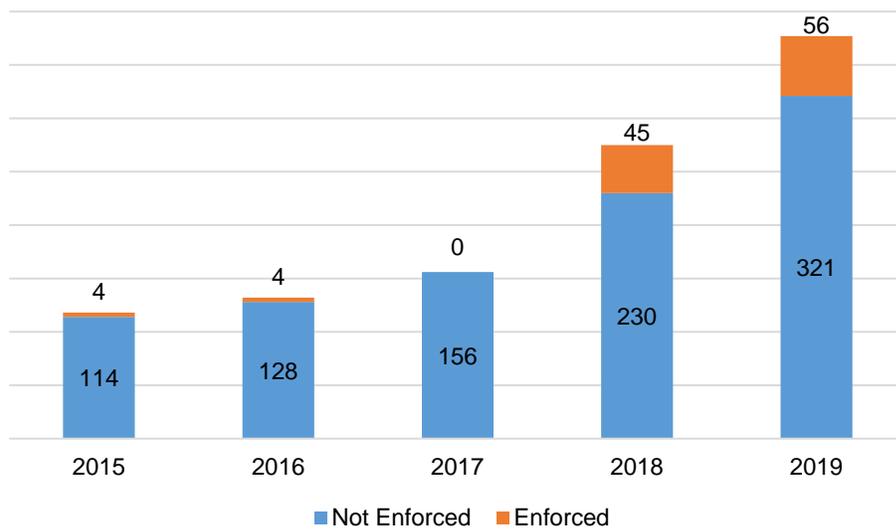
DDW leadership told us that one reason DDW has not enforced on more issues is because enforcement is costly. DDW has not had a large budget for pursuing fines or penalties. As shown in Figure 1.8 of Chapter 1, DDW has by far the lowest Attorney General budget of all the divisions. DEQ uses the Attorney General’s office in its enforcements to ensure they meet legal requirements and best practices.

DDW leadership also reported that they frequently work informally with the water systems to resolve deficiencies. While those efforts may contribute to the number of systems with deficiencies resolved within a year, we believe at least some water systems might have benefited from stronger and more consistent enforcement. Had the 119 systems with 5-year unresolved significant deficiencies been penalized according to DDW authority, they may have corrected the deficiencies sooner.

Informal enforcement action appears to have been inadequate in some prolonged deficiency cases.

Next, Figure 2.4 illustrates the lack of enforcement action in earlier years and the trend toward increased enforcement in later years. As the figure shows, enforcement on significant deficiencies considerably increased in 2018.

Figure 2.4 DDW Has Rarely Used Enforcement Actions. In 2019, DDW enforced on 56 significant deficiencies, while 321 received no enforcement. We estimate that DDW took enforcement action on 10 percent of significant deficiencies (109 out of 949) since 2015.



Source: DDW deficiency and enforcement data

DDW staff reported that the increase in deficiencies are due to multiple changes including technical enhancements on their database, better software and training. Staff also reported that the increase in enforcement is due to a change in priorities from the new director hired in 2017.

DDW Has Not Enforced on Lingering Deficiencies

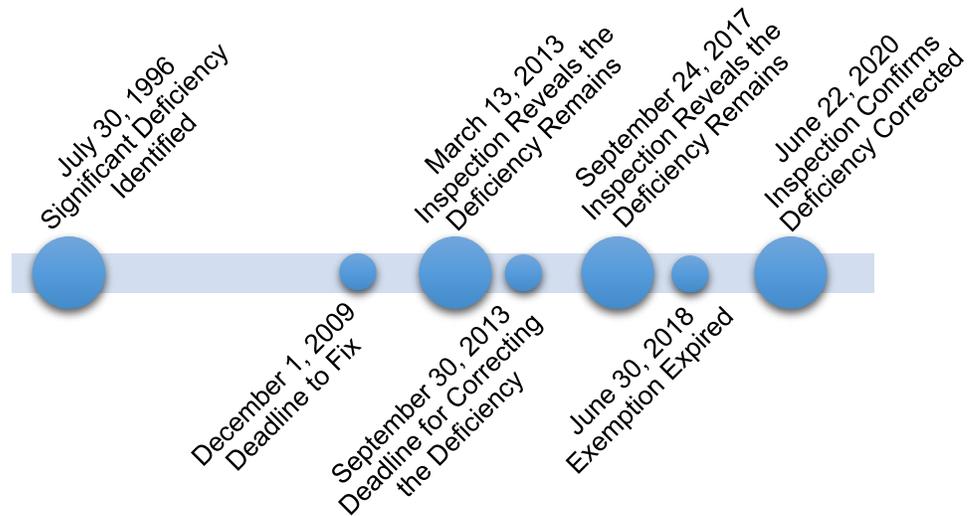
Water systems on average have been reducing the time taken to resolve deficiencies, but 74 significant deficiencies have still been unresolved for over a year. Of the unresolved deficiencies, 52 (70 percent) have not yet resulted in any kind of enforcement action from DDW.

Enforcement on significant deficiencies increased in 2018 and 2019.

Of the 74 unresolved significant deficiencies for over one year, 70 percent have not yet received any formal enforcement.

According to DDW data, one system had a significant deficiency for over 23 years until June of 2020. A Utah country club was found to have an insufficient well casing elevation in 1996. Figure 2.5 is a timeline of DDW’s history with the country club.

Figure 2.5 One Water System’s Significant Deficiency Was Outstanding Since 1996. The system was given a temporary compliance exemption, but the exemption expired in 2018. A recent inspection in June 2020 found the deficiency was corrected.



Source: DDW Documentation

Well casing elevation is important because contaminants can spill into the water source without proper protection. In this case, not only is the access to the well not elevated, but it is also in a pit with nothing to prevent spillage from entering the well. In 2013, the system requested a five-year extension to correct the deficiency but was denied due to the deficiency’s “significant nature and the potential hazard to public health.” Despite the initial denial, the water system was later granted a five-year exception that allowed the system to continue to operate with the deficiency.

Despite DDW’s concern for the deficiency’s risk to public health, we found no record of any additional corrective action being taken on the deficiency since the extension was requested. According to DDW records, the deficiency was corrected by June of 2020. DDW reported that this specific lingering deficiency was due to a lack of coordination between units within the division and employee turnover. While we did not find evidence of documented harm being reported from this

Despite being repeatedly identified as a significant deficiency, this water system deficiency went unresolved for almost 24 years.

The Division of Drinking Water director is required to promptly notify water systems of violations and require corrections by specific dates.

case, we believe the lingering risk to public health should have resulted in some kind of enforcement action.

Utah Code 19-4-107 requires that when a violation of DDW rule or order has occurred, the director (or DDW board) shall promptly notify the system and issue an order requiring correction of that violation or a filing of an exemption by a specific date.

Statute also provides the division with the authority to assess penalties for water system violations. *Utah Code* 19-4-109 states that “Any person that violates any rule or order...is subject to a civil penalty of not more than \$1,000 per day for each day of violation.” Penalties can be increased for willful violators and those who fail to take corrective action.

DDW reported that assessing penalties as allowed by statute has been difficult because that process must go through the Drinking Water Board. Perhaps for that reason, DDW reports that it has never issued a fine or penalty. DDW’s board review requirement recently changed with Senate Bill 88 passed in 2020, which allows the DDW director to assess penalties directly.

DDW Performance Tracking Can Improve Water System Compliance

DDW can improve performance tracking with the data they already collect by tracking water systems’ time to compliance. DDW does not currently track how long it takes a system to become compliant even though the division has the data available to them. At least 2 programs at DEQ actively track time to compliance to ensure a timely return to compliance for their entities.

We believe measuring time to compliance could provide the division and the department with valuable insight into effective division practices and help the division guide its continuous improvement processes. We believe continuous process improvement of DEQ’s overall regulatory effectiveness would contribute to DEQ’s mission of safeguarding and improving Utah’s air, land, and water through balanced regulation. We recommend that the division begin tracking and reporting entities’ time to compliance as a part of DDW’s continual process improvement efforts.

Although the Division of Drinking Water can issue penalties, the director reports that has not happened.

The Division of Drinking Water does not formally track the time it takes for systems to reach compliance.

DDW Should Regularly Review Compliance Exemptions

DDW does not periodically review compliance exemptions it has granted to water systems. Exemptions are increasing, but oversight over past exemptions granted is not. In the few cases where exemptions have been set to expire, DDW does not review the system afterward to see if the deficiency is still present. We recommend DDW periodically review compliance exemptions.

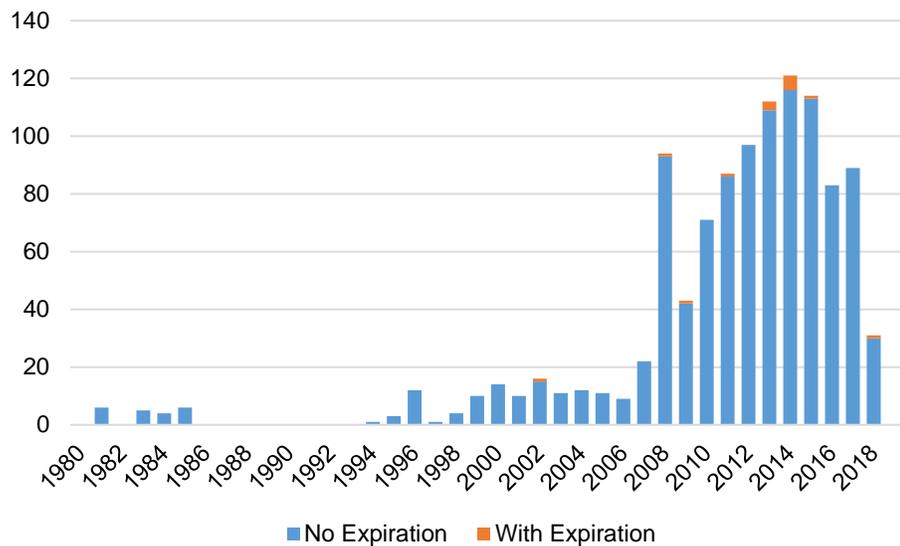
An exemption (called an exception by DDW) allows a water system to operate with a significant deficiency without enforcement from DDW. *Utah Administrative Rule R309-105-6(2)(b)* states that “the [DDW] Director may grant an ‘exception’ to portions of [system facilities] standards if it can be shown that the granting of such an exception will not jeopardize the public health.” Water systems are required to submit plans for mitigating health risks when requesting an exception.

DDW has 1,099 deficiency exemptions on record since 1981. Figure 2.6 shows exemptions by the year they were granted. The figure also shows the exemptions that were given expiration dates, which will be discussed below the figure.

Exemptions allow water systems to continue to operate with system deficiencies.

DDW has 1,099 exemptions on record since 1981.

Figure 2.6 DDW Records Show 1,099 Compliance Exemptions Have Been Granted. The exemptions allow significant deficiencies to go uncorrected, sometimes indefinitely.



Source: DDW Exceptions Data

As Figure 2.6 shows, DDW drastically increased the number of exemptions granted in the 10-year period between 2008 and 2018. DDW staff told us the reason for the increase was an increased thoroughness in engineering review (leading to more exemptions being requested.) Staff also told us that exemption tracking improved during that time. According to staff, the exemptions drop off after 2018 was due to changes that streamlined simple water projects.

Also shown in Figure 2.6 is the number of exemptions that included an expiration date. DDW data shows that 14 of the total 1,099 exemptions (1 percent) were given an expiration date. Only two exemptions in the past five years had expirations.

The lack of expiration dates for exemptions makes the lack of periodic review more problematic. Without a mechanism for exemptions to be revisited, either through periodic review or through expiration, significant deficiencies posing public health hazards can persist indefinitely.

The country club water system discussed earlier in the chapter was granted an exemption for a significant deficiency with one of its wells. That exemption was given after DDW denied the country club's request for a five-year extension in 2013, citing the “. . . significant nature of [the] deficiencies and the potential hazard to public health.” In the denial, DDW told the country club it would consider granting a temporary exemption if improvements were made to mitigate the deficiency. DDW could not provide any evidence that any mitigation for the deficiency took place prior to or immediately following the exemption.

DDW's willingness to grant an exemption for an already established potential health hazard raises concerns about the validity of other exemptions the division has granted. Also concerning is the fact that the exemption was set to expire in 2018; four years after the country club committed to correcting the deficiency. Still more concerning is that DDW only became aware in June 2020, that the water system corrected the deficiency sometime after DDW's inspection in 2017.

The country club water system deficiency highlights both a lack of adequate enforcement by DDW and a need to follow up on any deficiency exemptions. We believe DDW should have reviewed this and all other deficiency exemptions to ensure that public health

Only 14 of the 1,099 (1 percent) exemptions on record had an expiration date.

DDW has no formal process to review past exemptions, meaning an exemption granted in 1981 may have not been reviewed since.

continues to be safeguarded. We recommend that DDW develop a set schedule for reviewing existing exemptions so that risks to public health are more effectively mitigated.

Recommendations

1. We recommend that the Division of Drinking Water utilize its enforcement authority to correct significantly noncompliant water systems.
2. We recommend that the Division of Drinking Water track and report the time it takes for its regulated entities to reach compliance.
3. We recommend that the Division of Drinking Water periodically review water system exceptions for continued appropriateness.

Chapter III

Division of Environmental Response And Remediation Inspections Are Generally Good; Opportunities Exist to Review Responsibilities

The Division of Environmental Response and Remediation (DERR) regulates and inspects underground petroleum storage tanks (USTs) and oversees the cleanup of eligible contaminated sites in Utah. Unlike USTs, aboveground petroleum storage tanks (ASTs) are not regulated by DERR and can present a risk to health and the environment. We recommend that the Legislature consider some degree of regulatory action for ASTs. We also found that DERR has generally good inspections practices, though inspections of high-risk facilities can be increased. In addition, recordkeeping, mostly related to performance measurement, can improve.

Underground storage tanks fall under the jurisdiction of DERR's UST section if more than 10 percent of its volume is underground. Tanks with less than 10 percent underground and aboveground storage tanks or ASTs, are not currently regulated by DERR and are only required to report releases that impact groundwater to DEQ.

Heightened Oversight of Aboveground Storage Tanks Should Be Reviewed

Aboveground Storage Tanks (ASTs) are not currently regulated by DEQ, which is inconsistent with practices in several neighboring states. Many surrounding states have varying degrees of regulation over ASTs. Further, Utah has experienced harmful and expensive releases from ASTs over the years. We recommend that the Legislature and DERR consider some degree of regulatory oversight of these tanks.

Petroleum storage tanks with less than 10 percent underground and aboveground storage tanks or ASTs, are not currently regulated by DERR.

Aboveground Storage Tanks Are Not Regulated

Aboveground Storage Tanks (ASTs) are petroleum storage tanks with less than 10 percent of their volume underground. ASTs do not fall under the authority of the Underground Storage Tank Act. ASTs are not required to provide financial assurance,⁷ leaving a potential for major financial implications if a release occurs. ASTs can participate in the Petroleum Storage Tank Trust Fund but currently only four facilities have opted to do so. ASTs are also not required to register with DERR, so DERR cannot be certain it has an accurate inventory of every AST in the state. DERR estimates that there are around 2,050 commercial ASTs at 835 facilities⁸. Over 250 AST releases (spills or leaks of petroleum) have been reported to DEQ over the past 30 years.

ASTs Are Only Required to Report Leaks to DWQ if Groundwater Is Threatened. ASTs are considered permit-by-rule entities by the Division of Water Quality (DWQ). However, DWQ is not involved with ASTs until after a qualifying release occurs. ASTs are also not required to register with DWQ (or any other DEQ entity). Conversely, oil and gas sites that are not required to obtain an air quality permit are similarly considered PBR sites with the Division of Air Quality (DAQ). However, these sites must register with the state and are subject to inspection. Federal spill prevention regulations do apply to ASTs, but these regulations only require a plan to prevent oil spills that may affect navigable waters. For ASTs with a capacity of less than 10,000 gallons and no recent releases that affected navigable waters, this plan can be self-certified.

Many ASTs Are Aging. Unlike ASTs, USTs are subject to regular inspections. Aging USTs that do not meet compliance standards must either be replaced or closed. There are strict clean-up and notification requirements for UST closures, including a closure plan and a site assessment. ASTs, however, are not subject to these requirements, so

ASTs are not required to provide financial assurance, leaving a potential for major financial implications if a release occurs.

Federal spill prevention regulations do apply to ASTs, but these regulations only require a plan to prevent oil spills that may affect navigable waters.

⁷ Facilities can choose to pay into the Petroleum Storage Tank Trust Fund and use it in the event of an accidental release of petroleum. If a UST opts not to participate in the trust fund, it must obtain independent financial assurance of \$1 million.

⁸ This count does not include farm or residential tanks.

it is possible that high risk ASTs are still being used or have not been properly closed.

It Is Often Difficult for Potential Landowners to Verify that the Former Site of an AST Has Been Fully Remediated. Potential buyers and lenders can be issued a letter certifying the status of the property after DERR determines that a closed UST site is clean. This letter reduces uncertainty for potential buyers and lenders, as it offers protection from future liability should contamination be discovered at a later date. DERR reports that potential buyers have been deterred from purchasing property due to the uncertain status of former AST sites, as investigation and remediation can be very expensive.

The release shown in Figure 3.1 was the result of a piece of equipment being inadvertently driven into the AST.

Figures 3.1 A Rupture in an AST Led to a Spill of 3,000 gallons of diesel fuel. Fortunately, because the rupture occurred in the aboveground portion of the tank, the spill was easily identified and relatively well contained.



Picture #1 shows where the aboveground storage tank was leaking from damage.

Picture #2 shows fuel spreading across the ground from the damaged AST.

This AST did not have an effective physical barrier, leaving it susceptible to damage from impact. While this particular release was easy to identify, the division believes that many AST releases occur in the 10 percent of the tank that is underground (usually piping) or from the bottom of the tank where a release is much less visible. These releases can go undetected for some time.

Figure 3.2 summarizes eight AST releases. The summary contains at least three releases that were not discovered immediately because the leak was likely underground.

Many AST releases occur in the 10 percent of the tank that is underground (usually piping) or from the bottom of the tank where a release is much less visible.

Figure 3.2 Notable AST Releases. Due to the nature of AST regulation, not all information is known about these releases.

Facility	Year	Gallons Spilled	Investigation Cost	Responsible Party IDed?	Fully Remediated?	Remediation Cost
A	2020	3000	Unknown	Yes	Yes	Unknown
B	2010	13000	Unknown	Yes (closed)	Unknown	Unknown
C	2011	2200	Unknown	Yes	Yes	Unknown
D	2011	Unknown	\$53,267	Yes (closed)	No - ongoing	Approximately \$50,000 - \$100,000
E	2014	Unknown	\$36,420	Yes, Multiple	No - ongoing	Unknown
F	1987	Unknown	Approximately \$440,000	No	No	NA (not remediated)
G	2010	900	Approximately \$45,000	Yes	No - ongoing	\$1,045,000
H	2016	Unknown	\$39,173	Yes	No - ongoing	\$455,615 (PST)

Source: DERR, DWQ

Investigation and cleanup costs can be expensive. Most of these sites did not participate in the PST fund. Because full remediation can be expensive and releases are often discovered after a facility has closed, some parties have fought the contention that they are fully responsible. Others simply do not have enough money to pay for the remediation. A release in facility D has never been completely remediated because the facility had already closed by the time the release was discovered and the responsible party did not have the money to pay for the cleanup. Similarly, facility F was already closed when the release was discovered and the division was never able to prove the facility was responsible. This release has never been remediated.

A release from facility E was discovered after a new owner had taken over operations at the station. Because Utah does not require closure procedures or notification, the state only became aware of the problem after the release had significantly affected the surrounding areas. Much of the delay to remediation is likely the result of trying to determine who the responsible party is. It is also likely that if a closure inspection had been required, the responsible party would have been easily identified.

Compulsory financial assurance may alleviate some of these challenges. However, even with PST fund coverage and an identified responsible party, remediation can still take years. Requiring

Several AST releases were not immediately remediated because the spills were not discovered right away and the responsible party either could not be identified or could not afford to the high cost of full remediation.

preventative actions, such as registration, inspections, and closure notification and procedures may be beneficial.

Other States Regulate Above Ground Storage Tanks

Several neighboring states have AST programs. Some programs include inspections, while others just place additional requirements on operators of ASTs including registration, financial assurance, and closure procedures. Figure 3.3 shows the varying regulations ASTs are subject to in neighboring states:

Figure 3.3 ASTs Subject to Regulation in Neighboring States. Four neighboring states regulate ASTs, while three do not.

State	AST Requirements
Colorado	Commercial ASTs between 660 & 40,000 gallons must register with the state and pay annual fees. ASTs must certify financial responsibility and comply with inspections and record keeping and other preventative requirements. Colorado has closure procedures and notification requirements. Same regulations as UST if any part of the tank is underground.
New Mexico	Commercial tanks between 1,320 and 55,000 gallons must register with the state. Registration, periodic testing requirements, inspections, O&M, and closure requirements are in place.
Wyoming	Commercial ASTs must register with the state and must either participate in the state cleanup fund or obtain separate financial assurance. ASTs that participate in the fund must pay an annual fee.
Montana	ASTs with any underground piping must comply with UST requirements, including inspections, registration, closure procedures, and financial assurance. ASTs can voluntarily participate in the state cleanup fund upon compliance with minimum established AST standards.
Nevada	AST releases must be reported. No other registration or oversight requirement*.
Idaho	AST releases must be reported. No other registration or oversight requirement.
Arizona	AST releases that impact water must be reported. No other registration or oversight requirement.
Utah	AST releases that threaten groundwater must be reported. No other registration or oversight requirement.

*Note: ASTs located at marinas have special regulations.

Several AST releases were not immediately remediated because the spills were not discovered right away and the responsible party either could not be identified or could not afford to the high cost of full remediation.

Variations exist among states, but several states require some degree of registration. In addition, Colorado and Wyoming require financial assurance. Colorado and New Mexico require closure notification and have release preventative and cleanup procedures. Requiring a closure notification would have helped the division identify the responsible party in 3 of the 8 releases shown in Figure 3.2 and may have helped mitigate the impact of the release. Creating an inspection requirement could be fully or partially funded by annual certification fees, much like the UST program is funded. The remainder of the chapter addresses inspections conducted by the UST section.

DERR Can Improve Upon Its Generally Good Inspection Practices

DERR has generally good inspections practices, although some improvements can be made. Some high-risk facilities identified by DERR are not being inspected as often as intended by the division. Some information was inadvertently not captured in DERR's database. DERR strives to ensure consistency in compliance and has an average time to compliance of 165 days. Some measures could not be calculated, such as the time from the identification of a violation to the issuance of an enforcement action.

DERR's UST section inspects each facility every one to three years. *Utah Code* 19-6-404(2)(c) provides that the Director shall "...authorize a certified employee or certified representative of the department to conduct facility inspections and reviews of records required...." Additional authority to inspect facilities is found in the MOU between the division and the EPA.

Utah has 3,982 active USTs located at 1,422 facilities that have underground storage tanks (USTs). USTs must pay an annual registration fee and/or processing fee to receive a certificate of compliance for each tank to operate. Fees cover about 40 percent of the UST section's inspections program. In the past, the UST section inspected every facility each year, but through prioritization and required self-reporting, it has adjusted inspection frequency to every one to three years. In addition, the section inspects installations, removals, and closures of underground storage tanks.

UST annual fees cover about 40 percent of the cost of the compliance program.

USTs can have their certification of compliance revoked due to a continued noncompliance. Tanks without an active certificate of compliance are red tagged. USTs cannot receive petroleum deliveries until the red tag is removed. Once the compliance issue is dealt with and a reinstatement fee is paid, the permit is restored. Unlike many other regulatory DEQ sections, the UST section rarely issues penalties. Instead, the UST section relies on the red tag process, which suspends a facility’s ability to make money (by receiving new petroleum deliveries) as an equivalent to a monetary penalty. A penalty is only issued if a facility continues to accept petroleum deliveries after being red tagged or if it fails to register and receive a certificate of compliance.

The UST section can revoke a facility’s certificate of compliance for continued non-compliance, which prevents the facility from receiving petroleum deliveries.

UST Section Appears to Have Inspected Every Facility Within the Required Amount of Time

The UST section conducts about 900 inspections per year (not including installation and closure inspections). There were 80 different violations that facilities were cited for between 2015 and 2019. It is possible, and not uncommon, for a facility to have multiple violations. The most frequent violation between 2015 and 2019 was “failure to perform UST operator inspections.”

Figure 3.4 shows the number of inspections from 2015 through 2019 as well as the number of facilities with violations. The agency reported that facilities with violations increased in 2019 because of new federal testing requirements. Beginning in late 2018, UST operators are required to test spill buckets, containment sumps, leak detection equipment (such as automatic tank gauges) and overfill devices.

The agency reported that facilities with violations increased in 2019 because of new federal testing requirements.

Figure 3.4 DERR’s Inspections of USTs by year. The number of violations remained steady until the introduction of new testing requirements in 2019.

Year	Inspections	Facilities w/ Violations
2015	922	181
2016	935	197
2017	870	197
2018	918	175
2019	871	290
Total	4,516	1,040

Source: DERR Inspection Data

While every facility was inspected at least once every three years (per an agreement with the EPA) not all high-risk facilities were inspected annually.

The UST section inspected every facility within three years. It also inspected numerous facilities more often than every three years. Many of the additional inspections were motivated by facility risk.

The UST Section Has Developed a Risk Assessment Tool to Promote More Frequent Inspections of Higher Risk Facilities.

The UST section scores facilities based on the likelihood that a facility's equipment would fail and the severity of the environmental effect. A facility's equipment may be more likely to fail if the equipment is older or if past compliance history indicates that problems may occur in the future. Facilities are encouraged to make upgrades to their equipment that would lower their risk and qualify them for a reduced fuel surcharge⁹. Not all high-risk facilities were inspected in 2019 (the most recent complete year of inspections). Of the 453 facilities that scored in the high-risk range, 48 were not inspected in 2019. We recommend that UST continue to prioritize inspections of high-risk facilities.

Data for a Handful of Inspections Was Missing. Most inspections with missing information involved facilities that have since closed. The agency was able to provide details upon request. Analysis of the number of violations issued by year indicated that some violation details may not be recorded in the database. The agency reports that this oversight was due to a disconnect between the inspection application and the database. It was corrected upon discovery and did not affect the agency's overall assessment of the rate of compliance.

UST Section Ensures Consistent Compliance Through Use of Internal Processes and Policies

The UST section follows a comprehensive enforcement process to maintain consistency. The process has five to seven steps, many with specific time limits. If a facility fails to provide proof of compliance within the designated time, the UST section moves on to the next step in the enforcement process. A facility's certificate of compliance cannot be revoked (red-tagged) until the final steps of the process (involving the Attorney General's office) have occurred, regardless of compliance

If a facility continues to receive petroleum deliveries after it has been red-tagged, the UST section can issue a fine.

⁹ Facilities that participate in the PST fund pay a surcharge per gallon of fuel delivered. Facilities with lower risk qualify for a rebate at the end of the year.

history. If a facility continues to receive petroleum deliveries after it has been red-tagged, the UST section can issue a fine.

The UST Section Developed a Protocol to Reduce Monetary Penalties to Encourage Expedited Enforcement and Deter Future Violations. The section can monetarily penalize a facility if it fails to obtain a certificate of compliance or continues to receive petroleum deliveries after the revocation of its certificate of compliance¹⁰. The need to assess penalties is rare. Figure 3.5 shows penalty reduction calculation.

Figure 3.5 DERR’s Penalty Reduction Formula. The UST section encourages speedy payment of penalties by deferring a portion of the total. Penalty forgiveness decreases if a facility operating an underground storage tank (UST) continues to accept petroleum deliveries after its compliance certificate is revoked.

# of Petro Deliveries (D)	Penalty Reduction	Penalty Formula	Deferred Penalty
1-5	--	\$500	\$500 * (D-1)
6-25	80%	$P = \$100 * D$	$\$400 * D$
26-50	75%	$P = \$125 * D$	$\$375 * D$
51-100	70%	$P = \$150 * D$	$\$350 * D$
>100	65%	$P = \$175 * D$	$\$325 * D$

Source: DERR

The reduced portion of the penalty must be paid immediately. The deferred portion of the penalty is waived after one year without a major violation. If the reduced penalty amount is contested, DERR will pursue collection of the entire amount.

Time from Identification of Violation to Issuance of Enforcement Action Could Not Be Calculated

We attempted to calculate the average number of days between a violation being identified and initial enforcement action being taken. Based on the enforcement process, we identified initial enforcement actions as any action resulting in the issuance of a compliance phone call, email, or memo. The analysis shows numerous examples of an enforcement issuance date as occurring both before the violation was identified and years after it was identified. We brought these findings



¹⁰ The UST section can also penalize the person who delivers the petroleum to a red-tagged facility.

Repetitive or vague enforcement descriptions hindered external analysis of inspections data.

to the UST manager and he advised us that inspectors were likely not filling in this information accurately. We recommend that UST train inspectors to fill out all inspection information completely and accurately.

The analysis of time to enforcement action issuance was made more challenging because of the enforcement action descriptions, several of which appeared to be the same action. For example, “compliance speed memo,” “compliance letter,” “personal contact speed memo” and “letter” all describe the same initial letter sent to the facility to notify it of a violation. In total, there are 49 possible enforcement actions in the inspection’s spreadsheet. In contrast, there are only 7 steps in DERR’s enforcement flowchart. We recommend UST collapse some of those repetitive actions into fewer categories, to better reflect the compliance steps identified in the flowchart. We believe this adjustment will help facilitate the evaluation of compliance consistency and adherence to the established process.

The UST Section’s Time to Compliance Seems Reasonable.

The average time from a violation being identified to a facility coming into compliance is 165 days. 34 percent of issued violations achieve compliance between 0 and 60 days. Based on the UST section’s compliance guidelines, this percentage indicates that 34 percent of compliance issues are resolved after the issuance of the initial compliance email, phone call, or memo.

Recommendations

1. We recommend that the Department of Environmental Quality work with the Legislature to review and consider some degree of regulation for aboveground storage tanks.
2. We recommend that the Underground Storage Tank Section continue to improve upon its risk-based inspections protocol.
3. We recommend that the Underground Storage Tank Section ensure all data is available and stored in a way that allows for meaningful analysis.
4. We recommend that the Underground Storage Tank Section provide training to inspectors to ensure consistent reporting and promote additional analysis such as time to enforcement issued and time to compliance.

Chapter IV

Waste Management and Radiation Control Inspections Can Improve

The Division of Waste Management and Radiation Control (WMRC) oversees programs that are regulated by the state and federal governments. The x-ray and the solid waste programs are both state regulated. We reviewed the x-ray program's and solid waste program's inspection time frames. The x-ray program is not completing some of its inspections within intervals as specified in Utah Administrative Code and not all inspections are being completed as described in the landfill program's practices.

Hazardous waste,¹¹ radioactive materials, low-level radioactive waste, and uranium recovery facilities are federal programs that follow federal regulations. We found that the majority of the time, these programs comply with Environmental Protection Agency's (EPA) and Nuclear Regulatory Commission's (NRC) compliance regulations.

Lastly, 2019 legislation changed the status of exploration and production (E & P) waste from exempt waste to solid waste. Because of this change, Class IIIb landfills are acting as Class V landfills if they dispose of E & P waste. This change is problematic for Class IIIb landfills since they would need approval from local government, the Legislature, and the Governor in order to obtain a Class V landfill permit.

Inspections at Two State Programs Are Not Always Performed

Both the x-ray and solid waste (landfill) programs are state programs administered by the Department of Environmental Quality (DEQ). We found that both programs are not fully meeting inspection time frames. Depending on the type of facility, x-ray program inspections are required at one, two, or five-year intervals. We reviewed the inspections for calendar years 2015 through 2019 and found inspections that were to be done every year and every two

The x-ray and landfill programs are state regulated.

¹¹The used oil program is also a part of the hazardous waste program.

All x-ray tubes in the state are required to be inspected.

years were not being completed. Data for the solid waste program also showed that inspections that are to be completed each year and also every three years were not all performed.

We reviewed the x-ray inspections that were completed by DEQ inspectors and found:

- Inspections required annually – averaged 75 percent from 2015 to 2019
- Inspections required every two years - 45 percent were completed
- Inspections required every five years - 100 percent were completed

The primary hazard of not inspecting x-ray equipment is that improperly functioning equipment can cause overexposure to x-rays that can be harmful to the patient or technician.

The landfill program’s practice is to do inspections every one or three years, depending on landfill classification. We reviewed the inspections for fiscal years 2015 through 2019 and found:

- For landfills that should be inspected every year, on average, 65 percent were inspected.
- For landfills that should be inspected every 3 years, 64 percent were inspected.

The landfill inspection frequency is not formalized in *Utah Administrative Code* or policy but is instead a program practice. According to division management, this inspection practice was not started until 2019. Prior to that time, inspectors would visit the landfills as needed and not on a regular basis. This is dissimilar to several other western states whose inspection intervals are in either statute or in policy. We recommend that the landfill inspection intervals be added to the division’s policy or to *Utah Administrative Code*.

In addition, the landfill program does not collect the necessary data in order to determine how long it takes an entity to return to compliance once a violation is issued.

All landfills in Utah are to be inspected every one or three years.

Compliance with X-Ray Program's Inspections Time Frames Can Improve

Our five-year review of the x-ray program found that DEQ inspected an average 75 percent of facilities required to be inspected every year. Inspections occurred 45 percent of the time at facilities required to be inspected every two years. Finally, inspections occurred 100 percent of the time at facilities required to be inspected every five years.

The regulatory elements available in the data are shown in the teardrop figure in the margin. The x-ray program collects the data required to determine when inspections occurred and when entities returned to compliance.

DEQ requires all x-ray machines in the state to be registered every year. There are different facilities with different types of x-ray machines that are inspected at different intervals. Figure 4.1 shows the types of x-ray facilities and their inspection intervals.

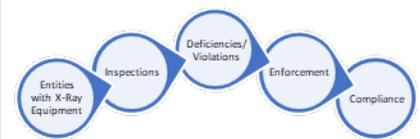


Figure 4.1 Facilities with X-Ray Machines are to be Inspected by DEQ or a Registered Qualified Inspector. X-ray machine inspections intervals differ depending on the facility.

Facility Types	Inspection Schedule (Yrs)
Hospitals, industrial facilities with high radiation areas, medical facilities with fluoroscopic or computed tomography units, radiation therapy facilities	1
Chiropractors, medical facilities with general purpose radiographic units, other educational facilities	2
Dentists, podiatrists, veterinarians, industrial with cabinet or other industrial units, other low exposure medical	5

Source: Utah Administrative Code R313-16-290

According to *Utah Administrative Code R313-16-290(2)*, “Inspections *may* be completed in accordance with the schedule.” (emphasis added) WMRC management views the schedule as a best practice and strives to follow the intervals as best they can. Appendix B shows suggested inspection frequencies for different x-ray facilities as suggested by the Conference of Radiation Control Program Directors, Inc., (CRCPD) a national organization made up of radiation control programs. The inspection schedule that the DEQ x-ray program follows is like that used by the CRCPD.

X-ray inspection frequency depends on the facility in which they are located.

A malfunctioning x-ray machine can be detrimental to x-ray personnel and the person being x-rayed.

It is important that these inspections occur because a malfunctioning x-ray machine can be detrimental to those around it. For example, the x-ray technician could be exposed to excess scatter of the x-ray beam. The patient could be exposed to more x-ray beam than required if the equipment emits too much power. Further, a malfunctioning machine could be operating at lower power than needed, possibly requiring a patient to be exposed more than once in order to get a usable image.

In lieu of DEQ’s inspectors, a facility may be inspected by a qualified expert registered with the division and approved by the director. A qualified inspector is required to submit inspection reports to DEQ within 30 calendar days of an inspection. The division charges \$15 per tube for reviewing inspection reports received from qualified inspectors. The qualifications required to be an x-ray inspector are specified in *Utah Administrative Code R313-16-293*.

Some X-Ray Inspections Are Not Completed in Required Time Intervals. Figure 4.2 shows completed inspections for the required intervals of every year, every two years, and every five years.

Figure 4.2 DEQ’s X-Ray Program Requires Equipment to be Inspected by a DEQ X-Ray Inspector or by Another Qualified X-Ray Inspector. For calendar years 2015 through 2019¹², inspections were not always completed as outlined in *Utah Administrative Code*.

	Number of Facilities	1 Yr	Number of Facilities	2 Yr	Number of Facilities	5 Yr
Inspections	238**	75%*	560	45%	1611	100%

Source: Auditor Analysis

* Average annual inspections completed from 2015-2019

** Average number of facilities over five years

The division reports that the number of x-ray machine inspectors has declined. The manager explained that when the divisions of radiation control and waste management were merged in 2015, the x-ray program’s inspectors were reduced from four to two inspectors due to legislative cuts to their budget. He also stated that it has been challenging for the remaining inspectors to complete all required inspections. The manager also mentioned that scheduling conflicts often arise because of facility availability, requiring inspectors to

¹² The x-ray program tracks their inspections on the calendar year.

X-ray inspections can be conducted by DEQ inspectors or by a qualified inspector.

reschedule at a later date that may be past the annual inspection time requirement.

DEQ is responsible to ensure all x-ray inspections are complete. DEQ must conduct any inspections that qualified inspectors do not complete. As mentioned earlier, there are only 2 DEQ x-ray inspectors and 46 x-ray inspectors registered with DEQ, although the bulk of the inspections are done by six or seven inspectors.

The DEQ inspectors inspected 1,598 more facilities than the qualified expert inspectors did from 2015 to 2019. The fee DEQ charges to inspect an x-ray machine ranges from \$75 to \$105, depending on the facility. In comparison, private x-ray inspectors charge from \$75 to \$800, depending on the type of x-ray unit being inspected. This cost does not include travels costs. It is reasonable that most facilities would have DEQ x-ray inspectors inspect their equipment. Despite issues with the frequency of inspections, the division is meeting goals for enforcement action, as discussed next.

X-ray's Enforcement Is Within Compliance Goal

After an inspection has determined that an x-ray device is out of compliance, the division sends the facility a notice of violation. The facility has 30 days to become compliant before additional enforcement action is initiated. We found that facilities have been bringing their equipment into compliance.

Figure 4.3 shows that for facilities with a violation that did not include a late fee that they became compliant in 30 days or less. The facilities that took longer to come back into compliance had failed to pay the required x-ray tube registration fee¹³ in a timely manner. These facilities averaged 139 days and 79 days in fiscal years 2018 and 2019 to achieve compliance. Collected fines for noncompliant facilities totaled \$20,900.

DEQ inspectors conducted 1,598 more inspections than outside x-ray inspectors conducted.

¹³ Facilities are required to pay a \$35 registration fee for each x-ray tube in their possession.

The x-ray program has been meeting its 30-day compliance goal when fines were not involved.

Figure 4.3 X-Ray Program Compliance Rates for Years 2015 - 2019. The x-ray program’s goal is to have facilities in compliance within 30 days. The program has averaged 30 days or less for cases that did not involve late fees to become compliant.

	2015	2016	2017	2018	2019
Inspections w/ violations	30*	25*	29*	24*	12*
Inspection w/ late fee	-	-	-	139*	79*

*Average number of days till compliant

Solid Waste Program Can Improve Inspection Compliance

The solid waste program oversees permitting and compliance of non-hazardous waste landfills and the used tire program. We focused on the program’s frequencies of landfill inspections and compliance levels for fiscal years 2015 to 2019. Our review showed that improvement is needed to complete landfill inspections in the expected time intervals. Inspections required to be completed annually were completed 65 percent of the time. Inspections required every three years were completed 64 percent of the time.

There are six different classifications of landfills that are described in *Utah Administrative Code* R315-301-2. Frequent inspections ensure landfills are following operational and safety protocols. For example, they inspect for proper storage and disposal of special waste, batteries, hazardous waste, infectious waste, dead animals, and asbestos. The inspectors verify treatment certification, paint filter test results, and manifests. They also monitor for explosive gases and take ground water samplings.

Landfill Inspection Intervals Are a Divisional Practice. Unlike the x-ray program whose inspection intervals are in *Utah Administrative Code*, the inspection intervals for landfills are not in *Utah Administrative Code* or in divisional policy. Figure 4.4 shows the divisional practice of how often landfills are inspected as well as the number of landfills in the state.

Landfills inspections are not in policy but is a divisional practice.

Figure 4.4 Divisional Practice of Landfill Inspections Is Based on Their Classifications. There are six different classifications of landfills as specified in *Utah Administrative Code*.

Landfill Classifications	Count	Inspection Frequency
Class I, V, and VI	36	Annual
Class IIIb, IVb	53	Every Three Years
Class II	57	As necessary

Source: Auditor Analysis

This inspection practice was initiated in 2019. The practice was in response to landfill fees changes and, according to division management, the need for the program to provide more services to the landfills.

In contrast to Utah’s practice, Idaho inspection intervals are specified in statute and New Mexico and Montana’s inspection intervals are specified in policy. We recommend that the landfill inspection intervals be added to the division’s policy or to *Utah Administrative Code*.

Landfill Inspections Are Not Being Completed within Inspection Time Frames. Figure 4.5 shows the inspection completions for landfills every year and every three years.

Figure 4.5 Landfills are to be Inspected Annually or Every Three Years, Depending on Their Classification. For inspections for fiscal years 2015 through 2019, inspections were not being completed.

	Inspected Every Year*	Inspected Every 3 Years
Inspections Completed	65%	64%

Source: Auditor Analysis

*Average annual inspections completed from 2015-2019

According to the program’s practice, Class I, V, and VI landfills are to be inspected every year. From fiscal years 2015 through 2019, these landfills were inspected on average 65 percent of the time. In 2019, when the inspection practice was started, the inspections were 80 percent. Before 2019, annual inspections for years 2015 – 2018 the inspection rates were 57 percent, 63 percent, and 66 percent. Clearly, the new practice has had a positive effect on landfill inspections.

Classes IIIb and IVb landfills are to be inspected every three years; 64 percent were inspected during the five years reviewed. The landfill

Several western states specify landfill inspection intervals in policy or in statute.

program has five inspectors who perform inspections, follow up on complaints, and draft/review permits for new facilities. They also review landfill monitoring reports as well as follow-up on known issues at the landfills.

Landfill Program Does Not Collect Compliance Data

Currently, the landfill program does not collect the necessary data that would allow management to determine how long a landfill takes to become compliant after receiving a notice of violation (NOV). At present, the inspectors have not been consistent in how they are recording dates into their online database. The regulatory elements available in the data are shown in the teardrop figure in the margin.

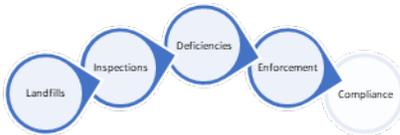
According to the program manager, instead of the date landfills return to compliance, inspectors record the date the NOV was sent or the date by which the inspectors would like the landfill to achieve compliance. We recommend that inspectors record the date that the landfills return to compliance to determine how long the process takes.

In addition, once an NOV is sent to a landfill, operators must send the landfill inspector information detailing how they will rectify the violation. According to the landfill manager, inspectors rarely make a follow-up visit to ensure violations have been completely remediated. But, inspectors do communicate verbally with the landfill operator and follow-up on the NOV at their next inspection. We recommend that WMRC management ensure that landfill inspectors perform follow-up inspections on violations they deemed to be severe.

The Landfill Program Does Not Issue Fines for Violations.

According to division management, fines are not issued for violations at landfills that are operated by municipalities because their operating budgets are based on tax revenues and the use of taxpayer dollars is better served when used for operational improvements that result in achieving compliance. Division management believe that they can come to a resolution of the violations without creating an added burden to the landfill's limited budget by imposing a fine.

Accordingly, the landfill program has not issued a fine in the last six years. As mentioned in the previous section, we are concerned with the program adequately ensuring compliance. The program has not focused on compliance as evidenced by them not knowing how long it takes a landfill to return to compliance.



The landfill program does not collect the data needed to determine how long it takes entities to return to compliance.

The landfill program does not issue fines as a method to encourage compliance.

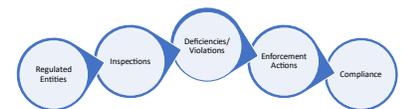
We are concerned that the program does not know how long it takes landfills to return to compliance. Some compliance issues may take a significant time to correct. Our concern is less with the policy decision not to issue fines than to improve compliance tracking and ensure important health and safety issues are corrected. If issues are not corrected in a timely manner, then fines might be an appropriate measure.

WMRC-Delegated Programs Appear to Have Good Inspection and Compliance Rates

We reviewed delegated programs within WMRC and found overall compliance, but room for improvement exists. Delegated programs mean that WMRC follows either Environmental Protection Agency (EPA) or Nuclear Regulatory Commission (NRC) regulations. All inspections, as well as compliance requirements, are governed by formal federal delegations, authorizations, or agreements with these federal agencies. Hazardous waste generators fall under the EPA's authority while low-level radioactive waste, uranium mills, and radioactive materials are governed by the NRC. While compliance is good overall, we report the following mixed conclusions:

- Not all hazardous waste enforcements meet the EPA's enforcement timelines.
- Low-level radioactive waste inspection findings need to meet the NRC's 30-day time frame.
- Uranium mill inspections appear compliant with the inspection frequencies set by the NRC.
 - The Radioactive Materials (RAM) Program inspections required by the NRC were completed 99 percent of the time.

The regulatory elements available in the data are shown in the teardrop figure in the margin. All four of the delegated programs have the data necessary to determine the time from date of inspection to an entity's return to compliance.



The EPA regulates the hazardous waste program.

Hazardous Waste Inspections and Compliance Intervals Need to Meet All Enforcement Intervals

As an authorized state, Utah is required to follow EPA’s regulatory timeframes for hazardous waste facilities. Therefore, the hazardous waste program is subject to the EPA’s inspection and compliance time frames. Inspectors are required to inspect large quantity generators of hazardous waste. Inspectors will inspect small and very small hazardous waste generators when alerted by issues or complaints or asked by a facility to provide them with compliance assistance.

According to DEQ, “The overall purpose of the hazardous waste program is to ensure that the generation, transportation, and subsequent treatment, storage, or disposal of a hazardous waste is protective of public health and the environment. It is typically described as a ‘cradle-to-grave’ waste management program.”

Large quantity generators are entities that generate over 1,000 kg per month of hazardous waste or over 1 kg a month of acute hazardous waste. Entities’ designation of large, small, or very small operations can change depending on the amount of waste they generate.

Large Hazardous Waste Inspections Appear Compliant with EPA Inspection Standards. Figure 4.6 shows the number of inspections as well as the percentage of inspections completed each year. The EPA requires WMRC inspectors to inspect at least 20 percent of the large hazardous waste generator population per year. The EPA requires large hazardous waste generators to be inspected once every five years.

Figure 4.6 Large Generators of Hazardous Waste Inspections for Fiscal Years 2015 - 2019. The Hazardous Waste Program appears to be compliant with the EPA’s established inspection rates of 20 percent per year.

Inspections	2015	2016	2017	2018	2019
Number of Inspections	158	149	124	112	164
Inspection Rate	30%	28%	23%	21%	31%

Source: Auditor Analysis

For fiscal years 2015 through 2019, inspections of large hazardous waste generators were compliant with EPA’s requirement to inspect at least 20 percent of facilities each year. The goal is that, by the fifth year, all facilities will have been inspected. From 2015 to 2019, all 529 entities were inspected at least once by an inspector. After inspections are completed, if a violation has occurred, inspectors follow up and complete a process until the facility is back to complete compliance. This process will be discussed in the next section.

The hazardous waste inspections appear compliant with EPA requirements.

Not All Large Hazardous Waste Enforcements Meet the EPA’s Enforcement Timelines. The EPA’s enforcement timelines start from the last day of an on-site inspection. Figure 4.7 shows the program results in meeting the EPA timelines.

Figure 4.7 Hazardous Waste Compliance and Percentages for Fiscal Years 2015 - 2019. The EPA establishes timelines the Hazardous Waste Program must meet. As shown, the program did not always meet the EPA’s timelines.

Compliance Benchmarks	Days to Comply to Benchmark	Number of Inspections	Inspections Over Benchmark	Percentage Over
Inspection Reports	45	748	71	9%
Enforcement Action	180	215	29	13
Final Compliance	450	205	9	4

Source: Auditor Analysis

Cases that involve fines can take longer to return to compliance.

Inspection reports are to be completed within 45 days of the inspection date. Of the 748 inspections, 71 of the inspection reports took longer than 45 days to be returned to the facility. The following is a brief summary of the cases that did not meet the EPA benchmarks:

- The 71 cases that were over the 45-day benchmark took an average of 125 days before the reports were completed.
- The 29 cases that were over the 180-day enforcement action benchmark took an average of 520 days before an enforcement action took place.

5 of the 9 cases over the 450-day benchmark involved fines.

- The 9 cases that were over the 450 days final compliance benchmark took an average of 1,071 days before they became compliant.

An enforcement action can be any of the following: warning letter, notice of violation, and notice of violations with compliance orders. The Hazardous Waste Program had 9 cases that went beyond EPA's final compliance mark of 450 days. Of the 9 cases, 5 involved fines. According to the program manager, when a fine is involved in an inspection case, the process always takes longer for facilities to come back into compliance. The Hazardous Waste Program collected \$476,714 in fines in fiscal years 2015 through 2019.

One WMRC Program Is Working to Come into Compliance; Two Programs Appear Compliant

We reviewed three other WMRC programs in the division: the low-level radioactive waste, the uranium mills, and the radioactive materials programs. These programs follow regulations set by the NRC.

Low-Level Radioactive Waste Is Not Always Compliant with NRC's 30-day Time Frame. Energy*Solutions* is the only company with a low-level radioactive waste facility in the state. The company currently has four different permits with the division. Each permit requires an annual inspection. An audit by the NRC in September 2019 found that inspectors completed all required facilities inspections but the inspection findings were not issued to the licensee within the required 30-day time limit. The program manager stated that they responded to the NRC audit and are in the process of improving their processes to meet the 30-day deadline.

The WMRC division has three programs that are regulated by the NRC.

Uranium Mills Inspections Were Completed for the Past Five Years. Utah has one operational uranium mill and two uranium sites that are not operational. According to the division, the inspection requirements for the two non-operational sites are governed by WMRC discretion to ensure compliance with NRC's rules and regulations to ensure protection of public health and safety as well as safety of the environment. All required inspections appear to have been completed for the 2015 to 2019 time frame. During that time, four NOV's were issued, two of which were not based on an

inspection but a violation of a license condition requiring an annual submission of financial surety information. Total amount of fines was \$21,500 from 2015 to 2019.

Radioactive Materials (RAM) Program Is Completing a High Number of Inspections. The NRC inspection rules can vary depending on the priority of the licensee. Priority 1 and 2 licensees may vary +/- 50 percent. Priority license levels 3 through 5 may vary +/- one year. This means for priority 1 and 2 licenses if an inspection is required every 4 years, the inspection is not considered late if it is completed within 6 years of the last inspection. The RAM program had 187 entities from 2015 to 2019. The inspection frequencies can differ for each facility. The inspection intervals range from one to four years.

Three inspections were not completed in the allotted time frame. From 2015 to 2019, a total of 395 inspections (99 percent) were completed. For licensees who received an NOV, Figure 4.8 shows the average number of days it took from the inspection until the entity returned to compliance.

The RAM program completed 99 percent of inspections within NRC regulations.

Figure 4.8 Average Number of Days from Inspection Date until Compliance for RAM Entities that Received an NOV for Fiscal Years 2015 through 2019.

Years	Number of Licensees	Inspection to NOV	Inspection to Compliance
2015	7	14	59
2016	14	25	160
2017	17	22	88
2018	10	25	136
2019	7	40	105
Average	11	25	114

Source: Auditor Analysis

Also included is the average number of days from the inspection date until the licensee became compliant. Overall, those with an NOV are averaging 25 days from the inspection date till the NOV and 114 days to return to compliance. In addition, fines during this time totaled \$93,500.

Class IIIb Landfills Need to Be Reclassified

During the 2019 Legislative General Session, Bill (H.B.) 310 passed, causing Class IIIb landfills to function as Class V landfills. The bill changed the exemption status of exploration and production (E & P) waste. The change was needed in order to comply with federal hazardous waste rules. The results of this change inadvertently caused Class IIIb landfills, (without having to go through the approval process) to become and operate as Class V landfills.

Change in Waste Status Was Needed To Comply with Federal Rules

In 2018, the EPA notified DEQ of a rules deficiency that would jeopardize the state's authority to implement the Solid and Hazardous Waste Program. Federal rules categorize E & P waste as a solid waste whereas Utah's statute did not. E & P waste is a broad category of waste that is generated by oil and gas production. The EPA took issue with Utah's classification, stating that "...the state[s] definition of solid waste [was] narrower in scope and less stringent than the federal definition." The EPA requires that states maintain a program that meets the requirements of 40 CFR 271. In 2019, passage of House Bill (H.B.) 310 reclassified E & P waste as a solid waste.

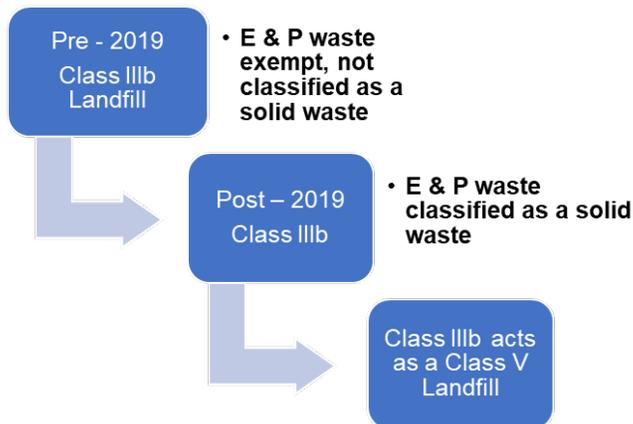
Effect of 2019 Legislation, H.B. 310, Changed Class IIIb Classification

Before legislative changes to the status of E & P waste, it was considered an industrial waste and there was no issue with Class IIIb landfills accepting E & P waste. Figure 4.9 shows the change in status of the landfills with the amendment.

**Federal statute
classifies E&P waste
as a solid waste.**

**With the change in the
statute in 2019, if Class
IIIb landfills accept
E & P waste they are
acting as a Class V
landfill.**

Figure 4.9 Legislative Changes to the Status of E & P Waste Created a Need to Reclassify Class IIIb Landfills. Since the change in legislation, if a Class IIIb landfill accepts E & P waste, the facility is functioning as a Class V landfill without the proper permit.



Source: Auditor Generated

The change in status of E & P waste caused a dilemma for Class IIIb landfills. A landfill must have a Class V landfill permit to accept this waste. To become a Class V landfill, the permit approval process requires approval from the local government, the Legislature, and the Governor.

Currently there is a total of four Class IIIb landfills operating as Class V landfills. There are four more landfills in the permitting process waiting to become Class IIIb landfills. These are on hold until a solution can be resolved. According to the DEQ, they are working on a solution that may resolve the issue in the next few months. The division has stated that they plan on changing *Utah Administrative Code* to create a new classification for specifically for E & P landfills. By doing so, the rule change would alleviate the need for any statute changes.

Recommendations

1. We recommend that the Division of Waste Management and Radiation Control's x-ray program improve inspection frequencies to become more compliant with the inspection time frames in *Utah Administrative Code*.

2. We recommend that the Division of Waste Management and Radiation Control's landfill program improve inspection frequencies to become more in line with their current practice.
3. We recommend that the Division of Waste Management and Radiation Control put into policy or *Utah Administrative Code* the inspection frequencies for landfills that they oversee.
4. We recommend that the Division of Waste Management and Radiation Control's landfill program track compliance data in order to determine when landfills return to compliance.
5. We recommend that the Division of Waste Management and Radiation Control's landfill program ensure its inspectors are performing follow-up inspections on severe violations to ensure compliance.
6. We recommend that the Division of Waste Management and Radiation Control create a rule in *Utah Administrative Code* that will create a classification for landfills that will allow them to legally accept E & P waste.

Chapter V

DEQ's Division of Water Quality Can Improve Regulatory Data Tracking

The Department of Environmental Quality's (DEQ) Division of Water Quality (DWQ) can improve data tracking and implement time to compliance measures to help engage in continual process improvement. DWQ lacks comprehensive regulatory data tracking such that measuring the quality of the division's oversight is difficult. For instance, DWQ does not comprehensively track violations that inspectors find during inspections nor does DWQ consistently track when entities return to compliance.

DWQ's Surface, Storm, and Groundwater sections lack consistent data tracking on violations found during inspections and the dates that regulated entities return to compliance. The three sections also track and store data differently. As a result, these sections lack key data for measuring enforcement effectiveness and data is not easily accessible for higher-level decision making.

DWQ Regulates Utah's Waters

DWQ is tasked with ensuring Utah meets water-quality standards. The division writes permits, monitors pollution levels in state waters, develops plans to improve water quality in lakes and streams, and provides financial assistance for water quality and wastewater infrastructure projects.

DWQ has eight sections, three of which are tasked with permitting and inspections: Surface Water, Storm Water, and Groundwater. Because these three sections are tasked with the primary regulatory functions of the division, we focused on them in this chapter. Below are descriptions of each section.

- **Surface Water** – This section is charged with regulating any entity that discharges pollutants into Utah's surface waters. Among the entities regulated are wastewater treatment operations and animal feeding operations.

The Division of Water Quality monitors state waters and works to improve water quality.

- **Storm Water** – This section regulates storm water discharges to control pollutants from entering the waters of the state. The section regulates discharges from industry, construction sites, and separate municipal storm sewer systems.
- **Groundwater** – This section reviews small-scale injection activities such as storm water dry wells, ground water remediation wells, and domestic underground drain fields. The section also issues permits to agricultural and industrial waste management units that discharge pollutants into ground water.

DWQ’s Surface and Storm Water Sections Lack Consistent Data Tracking

A lack of comprehensive and quantifiable data made reviewing DWQ regulatory performance difficult. Because complete data on DWQ violations and violation compliance was unavailable, we had difficulty effectively analyzing the quality of the sections’ regulatory oversight.

The regulatory elements available in the data are shown in the teardrop figure in the margin. Regulatory elements that are greyed out are intended to show that comprehensive and quantifiable data were not available for those areas. Those elements may have had some quantifiable data available, but the data was not collected and tracked for all cases.

DWQ’s Surface and Storm Water sections met most inspection requirements since 2015. Figure 5.1 shows that DWQ missed 95 required inspections of the 1723 inspections required. Not shown in the figure is that the Surface and Storm Water sections completed 172 additional inspections that were not specifically required by the EPA.

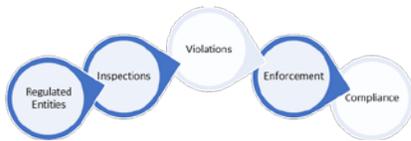


Figure 5.1 DWQ Surface and Storm Water Sections Met 95 Percent of Required Inspections in the Past 5 Years. The Surface and Storm Water sections sometimes exceeded individual inspection requirements but missed 95 required inspections.

Year	Required Inspections Completed	Inspections Required	Missed	Percent of Inspections Meeting Requirement
2015	229	271	42	84.5%
2016	289	309	20	93.5
2017	357	381	24	93.7
2018	361	362	1	99.7
2019	392	400	8	98.0
Total	1628	1723	95	94.5%

Source: Inspections Data

As Figure 5.1 shows, DWQ’s Surface and Storm Water sections conduct hundreds of inspections per year. The sections rely on inspectors to escalate significant violations found during the inspections. Inspectors are also expected to follow up with permitted entities to ensure that needed changes are happening. While documentation for the inspections is retained, it is not converted into an easily quantifiable format. As a result, analyzing inspection data for process improvement is difficult.

DWQ’s Surface and Storm Water Sections’ Lack of Compliance Tracking also Makes Tracking Entities’ Time to Compliance Difficult. The DWQ sections have data on enforcement actions taken and settlements reached but have not maintained data on when entities resolved violations. As a result, quantitatively tracking DWQ’s enforcement efforts for process improvement is difficult. We recommend that DWQ Surface and Storm Water sections track any violations uncovered by inspectors. We also recommend that the sections track when entities reach compliance.

The Division of Water Quality completed 95 percent of the inspections required by the EPA for 2015-2019.

The Division of Water Quality Surface and Storm Water sections lack comprehensive violation and compliance tracking.

DWQ's Groundwater Section Data Tracking Can Improve

The Groundwater section lacks consistent data tracking for its violations, enforcement actions, and compliance. Groundwater data tracking is also less comprehensive than Surface and Storm Water sections' tracking. The Groundwater teardrop in the margin is not a representation of the quantity or quality of Groundwater regulatory activities. Rather, the teardrop shows the data tracking elements maintained by the Groundwater section as part of its regulatory oversight. While Groundwater was able to produce data for most of the elements, it did not have quantitative data for all cases consistently. Tracking those elements comprehensively and consistently across the sections could improve the divisions' high-level analysis and decision making.

The Groundwater section tracks compliance through a combination of permittee compliance and monitoring reports and DWQ inspections. DWQ reports that it relies more on the compliance reports to identify potential issues with permittees. Permittees are not inspected at any set frequency, and while the Groundwater section tracks when inspections happen, the results of the inspections are not tracked quantitatively. The section has 43 permittees on record that range from mining operations to airport deicing.

Like the other DWQ sections, inspectors are expected to escalate significant inspection findings, but while inspection documents are maintained, they are not consistently converted into a quantifiable format. As a result, conducting high-level analysis on violation data is difficult. Such high-level data could be useful for conducting risk analyses and planning future inspection activities.

Enforcement documents are stored but enforcement and compliance data are not maintained in an easily quantifiable data format. Without readily quantifiable data we felt unable to effectively measure Groundwater's regulatory efforts. We recommend that DWQ's Groundwater section begin quantitatively tracking inspection results, violation data, enforcement actions, and when entities reach compliance.



The Division of Water Quality's Groundwater section lacks consistent and quantitative data tracking for inspections, violations, enforcement, and compliance.

Recommendations

1. We recommend that the Division of Water Quality consistently track and report on its permits, inspections, deficiencies, enforcement actions, and entity compliance.
2. We recommend that the Division of Water Quality track and report the time it takes for its regulated entities to reach compliance.

This Page Left Blank Intentionally

Appendices

This Page Left Blank Intentionally

Appendix A
A Follow-up of the Performance Audit of the
Division of Radiation Control (Report 2012-10)

This Page Left Blank Intentionally

Appendix A

The following are the recommendations from the *A Performance Audit of the Division of Radiation Control*¹⁴ (#2012-10). The report made six main recommendations to the division and two recommendations for the Legislature's consideration. We did not conduct further work because the recommendations were implemented.

Chapter III, Recommendation 1: We recommend that the Division of Radiation Control (DRC) improve predisposal controls that will validate bulk waste streams prior to disposal by implementing one or more of the following:

- Maintain a visible presence (unannounced visits and direct observation of sampling) when EnergySolutions conducts its sampling
- Implement a visible presence, as described above, combined with an increase in random sampling of waste
- Retain all sampling duties by conducting statistically valid random sampling of incoming waste

Response: The Division of Waste Management and Radiation Control (WMRC) conducted and continues to conduct site inspections at EnergySolutions on an almost daily basis, making them essentially unannounced as well as a random inspection. WMRC staff sign the facility entrance log each time they go on site to comply with site security procedures. This sign-in is really the only notification EnergySolutions receives that inspectors are on site.

In October 2012, EnergySolutions moved to a four-day work week. WMRC staff are on site each day during the normal work week. EnergySolutions notifies the WMRC in advance when waste operations occur on a day outside of normal business operations so WMRC staff can have staff on site. The WMRC health physics staff sample selected incoming shipments, such as large components or higher activity Class A waste shipments, with the appropriate survey meters during site inspections.

WMRC staff conduct Waste Characterization Plan inspections (WMRC Inspection Module 15) focused on waste sampling. In addition, WMRC conducts inspections that observe and validate waste sampling techniques and procedures.

¹⁴ Since the consolidation of the two divisions on July 1, 2015. The division is now called the Division of Waste Management and Radiation Control. (WMRC)

According to WMRC, the division purchased a software program called Radman that allows them to inspect shipments to identify the isotopes. The Radman software is used to verify that the SempraSafe process's blended radioactive ion exchange resin waste is within Class A limits as per 10CFR61.56, Waste Classification and R313-15-1009 of *Utah Administrative Code*, Classification and Characteristics of Low-Level Radioactive Waste. Due to ALARA¹⁵ concerns – minimizing radiation exposure to the division's inspectors – direct sampling of this waste is not a viable option.

Chapter III, Recommendation 2: We recommend that, as a condition to access Utah's disposal site, the DRC require containerized waste generator entities to grant the DRC full authority to review all on-site operations and conduct on-site sampling of waste before shipment in order to validate waste classification, when the need is determined by DRC.

Response: In 2015, House Bill (H.B.) 78 was passed, allowing either the state where the GSA permittee is located is regulated by the NRC or an agreement state (that covers everyone) or WRMC could perform the inspections. Since all General Site Access (GSA) permittees are located where either the NRC or an agreement state has regulatory authority, this bill ended the need for WMRC to continue on-site inspections.

Chapter III, Recommendation 3: We recommend that the DRC present to the Radiation Control Board the need to change its Generator Site Access Permit (GSAP) program to require testing by the DRC of a random sample of containerized waste to verify the waste's classification at some of the generators' facilities before shipment to Utah.

Response: The Radiation Board approved a proposed change to the GSA rules, but never finalized the changes due to statutory changes with the passage of 2015's H.B.78. The bill alleviated the need for any further rulemaking because a GSA permit could be issued if the GSA facility was within the regulatory authority of the NRC or an agreement state.

Chapter III, Recommendation 4: We recommend that the DRC review staff time allocation to ensure that the amount of predisposal oversight is adequate to address waste classification risks with respect to Utah's statute prohibiting Class B and C waste.

Response: Since 2013, the DRC has enhanced its predisposal oversight of incoming shipments. DRC health physics staff perform independent surveys of higher activity Class A waste shipments. The DRC maintains survey results in a spreadsheet.

In January 2013, the DRC began using an independent software program (Radman) to determine and verify waste classification for incoming shipments to the Clive disposal

¹⁵ A Health Physics principle by which occupational radiation exposure is kept As Low As Reasonably Achievable.

facility. The DRC receives the waste manifests prior to their arrival at the disposal facility. The DRC also receives weekly reports from *EnergySolutions* that provide the two-week shipment schedule for wastes slated for disposal in the containerized waste facility. The DRC uses the shipping schedule to obtain the necessary information to perform waste classification verifications before Clive receives the shipments.

The program manager stated that the staff spends approximately 70 percent of their time on pre-disposal inspections. The manager did not have evidence that staff spent that amount of time on pre-disposal inspections because the division did not track the time employees spent on inspections.

Chapter III, Recommendation 5: We recommend that the DRC expand its Department of Transportation inspections of waste shipments on a random sample basis, to include all days and times *EnergySolutions* can receive waste shipments.

Response: As with the response to the first recommendation, the division uses the Radman software program to assist the division in inspecting shipments. Additionally, WMRC staff perform inspections at all times *EnergySolutions* is open to receive incoming shipments. WMRC inspectors have access to all shipments and can randomly select shipments to review associated shipping and waste acceptance documents. Additionally, based on observations of the incoming shipments, an inspector can further investigate the condition of a shipping container and the associated condition of the waste material as well as confirm radiation levels using survey meters.

Chapter III, Recommendation 6: We recommend that the DRC have better reporting requirements to determine if foreign waste is entering the state.

Response: Under federal law (and as a result of a federal court case decided by the U.S. 10th Circuit Court of Appeals regarding the compact's authority to control foreign waste shipments into the compact), the Northwest Compact, which includes Utah, is the legally recognized entity to be informed of shipments coming into the compact. As the host state to the Clive facility and the licensing agency of the site, WMRC receives a copy of these monthly reports. The reports that come from the Northwest Compact also serves as another source to determine waste origin for low-level radioactive waste shipments going to the Clive facility.

In summary, management of DWRC implemented the recommendations from the 2012 audit report except for areas where legislation was passed that eliminated a need to implement a recommendation.

This Page Left Blank Intentionally

Appendix B
Recommendations from Conference of Radiation Control
Program Directors, Inc.

This Page Left Blank Intentionally

Appendix B

The following are the recommendations from Conference of Radiation Control Program Directors, Inc. The following guidance pertains to priorities for scheduling x-ray facility inspections.

Type of Facility	Inspection Frequency ¹⁶
New Facility	Within reasonable time frame, but not to exceed one year from initial registration
Hospital or Similar Facility	Annually
Therapy Facility	Annually
Mammography Facility	Annually
Other Medical Facility ¹⁷	Every two years
Chiropractic Facility	Every two years
Veterinary Facility	Every three years
Dental Facility	Every four years
Industrial or Other Non-medical Facility	Every five years

¹⁶ In facilities where multiple types of diagnostic and therapeutic equipment is used, the RCP should apply an inspection frequency based on the type of use.

¹⁷ Other medical facilities include medical clinics and private doctor's offices where diagnostic x-ray exams are taken.

This Page Left Blank Intentionally

Agency Response

This Page Left Blank Intentionally



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

Kim Shelley
Deputy Director

August 6, 2020

Kade Minchey, CIA, CFE
Auditor General
315 House Building
Salt Lake City, Utah 84114

RE: In-Depth Budget Review of the Department of Environmental Quality Report No. 2020-04

Dear Mr. Minchey,

The Utah Department of Environmental Quality sees the value in an outside evaluation of the department's performance and responsibilities. We commend you and your staff for your professionalism and thoroughness in completing the audit of our agency resulting in helpful recommendations for improvement. Such improvements will further our commitment and support our efforts to achieve our mission to safeguard and improve Utah's air, land, and water through balanced regulation.

We generally concur with the audit recommendations and we will implement changes. Below you will find our responses to specific chapters and the recommendations found in the audit report.

Chapter II – Division of Drinking Water

UTILIZE ENFORCEMENT AUTHORITY TO CORRECT SIGNIFICANT NONCOMPLIANT WATER SYSTEMS

Actions Taken

The Division is transitioning away from using the point system to prioritize limited enforcement actions to using it as a threshold for enforcement and will embrace escalating enforcement until a given issue is resolved. The Division also continues to develop tools to bring water systems into compliance faster. Many of these changes became effective in January 2020 and July 2020. As of August 1, 2020, the Division has identified nearly 60 significant deficiencies, which have been on

record for more than the 120 day grace period, where the water system has not agreed to a compliance schedule with distinct enforceable deadlines and therefore will be put on the path of escalated enforcement.

Actions Planned

Continue moving forward with the implementation of enforcement processes finalized in January 2020.

TRACK AND REPORT RETURN TO COMPLIANCE TIME

Actions Taken

Much of the raw information to determine this performance measure is already databased but not standardized in a way to determine Return to Compliance time yet.

Actions Planned

Engage the Department of Technology Services (DTS) to complete minor programming needed to pull all information into a performance measure.

PERIODIC REVIEW OF EXCEPTIONS

Actions Taken

Beginning in 2020 all exceptions are granted with an expiration date and many are given additional operational or monitoring requirements to ensure the intent of the original rule is maintained.

Actions Planned

The Division intends to request a fee for implementation in FY22 to fund additional personnel resources to evaluate new exceptions and review historic exceptions and place them on a renewable cycle.

Chapter III – Division of Environmental Response and Remediation (DERR)

WORK WITH THE LEGISLATURE TO REVIEW AND CONSIDER SOME DEGREE OF REGULATION FOR ABOVEGROUND STORAGE TANKS

Actions Taken

The Division has a strong stakeholder partnership (UST Advisory Task Force) that we work closely with for UST program development and implementation and we have engaged stakeholders in this issue of unregulated AST releases and their impacts. The Division presented information regarding Above Ground Storage Tanks (AST) to the Natural Resources, Agriculture and Environmental Quality Interim Committee in the May 2017 committee meeting and again in the August 2017 meeting. Discussed was the scope of the issue of unregulated ASTs, regulatory approaches of other states and potential regulatory options for Utah should the legislature decide to modify regulatory policy. The committee voted on a motion to open a bill file addressing ASTs for the 2018 Legislative Session. The motion did not pass.

Actions Planned

The Division will work with the legislature, executive branch leadership and stakeholders to address the AST regulatory structure in Utah should this be the policy direction given to the department and division.

CONTINUE TO IMPROVE UPON THE RISK-BASED INSPECTION PROTOCOL IN THE UNDERGROUND STORAGE TANK SECTION

Actions Taken

As indicated in the audit, the UST risk evaluation tool and inspection prioritization has been an effective mechanism for focusing on UST facilities that have greater potential for environmental harm. Inspectors are assigned a specific list of facilities to inspect each fiscal year and completion is tracked and managed as part of their performance plans. Most of the red facilities that were identified in the audit report as not being inspected in calendar year 2019 were inspected during FY2019.

Actions Planned

With the interruption of normal work during the pandemic a few higher risk facilities were not inspected during spring of 2020. Those facilities have been identified and will be prioritized for the summer/fall of 2020 and again before the end of fiscal year 2021.

ALL DATA IN THE UNDERGROUND STORAGE TANK SECTION IS AVAILABLE AND STORED IN A WAY TO ALLOW FOR MEANINGFUL ANALYSIS

Actions Taken

The issue of data not being transferred efficiently from the inspection app across the data bridge into the UST database was identified by the Division and remedied in late 2018. 289 inspections were impacted by this problem and while the database was updated manually, the level of detail that is captured by the inspection app was not replicated by manual entry. Since that time, the inspection data has been completely and accurately shared across that platform and recorded in the database.

Actions Planned

The Division plans to evaluate the data transfer process and create an internal audit/report tool that will identify potential discrepancies in data so we can quickly identify problems and correct them.

PROVIDE TRAINING TO UNDERGROUND STORAGE TANK INSPECTORS TO ENSURE CONSISTENT REPORTING AND PROMOTE ADDITIONAL ANALYSIS

Actions Taken

The Division currently has a report that flags inspections with violations that have no corresponding compliance entered into the database. This report is reviewed approximately monthly. Additionally, a task list for each project manager appears upon entry into the database to identify enforcement deadlines that require action.

Actions Planned

The Division will look at incorporating the inspection violations/compliance needed report into our visual management tool for a weekly review. We will look at a way to effectively include an enforcement report into the visual management tool as well. We have considered various alternatives previously, but have yet to identify one that is concise and useful. We will revisit this effort. Also, the Division will provide additional training for staff to ensure that data is captured and recorded in the database with the appropriate level of detail to facilitate more effective use of this data. Finally, the list of compliance actions will be reviewed and condensed to better reflect the steps outlined in the enforcement flowchart.

Chapter IV – Division of Waste Management and Radiation Control

X-RAY PROGRAM SHOULD IMPROVE INSPECTION FREQUENCIES TO BECOME MORE COMPLIANT WITH THE INSPECTION TIME FRAMES IN *UTAH ADMINISTRATIVE CODE*

Actions Taken

In 2015, the funding for x-ray program inspectors was reduced by 50%. With the reduction in staffing, the division’s ability to maintain the same level of inspection frequency was significantly impacted. The remaining two inspectors also conduct all mammography-related inspections within the state under a contract with the U.S. Food and Drug Administration. Meeting these contractual inspection commitments is a priority for agency inspectors.

Actions Planned

In order to meet the required inspection frequency, the Division will need at least one additional inspector. The Division believes the approach to improve the inspection frequency is to work with the various x-ray facilities across the entire spectrum of x-ray registrants and jointly evaluate the staffing necessary to achieve that improvement as well as mutually determine the associated fees to support such staffing.

DWMRC'S LANDFILL PROGRAM SHOULD IMPROVE INSPECTION FREQUENCIES TO BECOME MORE IN LINE WITH THEIR CURRENT PRACTICE

Actions Taken

Since 2019, the Division has improved its tracking and on-site inspections of all solid waste management facilities—both public and private. Complementing this effort is a new database the Division is using to bring added process and program implementation efficiencies, including inspection scheduling and completion activities.

Actions Planned

Continue with actions implemented in 2019.

PUT INTO POLICY OR UTAH ADMINISTRATIVE CODE THE INSPECTION FREQUENCIES FOR LANDFILLS

Actions Taken

The Division recently hired a new Solid Waste Program Manager and is revising the solid waste program policies and procedures to not only implement this recommendation but also to evaluate and implement other program efficiencies. This is a critical priority for the new manager.

Actions Planned

Continue with actions implemented above.

DWMRC'S LANDFILL PROGRAM SHOULD TRACK COMPLIANCE DATA TO DETERMINE WHEN LANDFILLS RETURN TO COMPLIANCE

Actions Taken

The Division is in the early stages of evaluating the necessary changes to the program database to enable tracking and managing return-to-compliance actions taken by a solid waste management facility.

Actions Planned

The Division will implement changes to the program database to enable tracking and managing return-to-compliance actions.

LANDFILL PROGRAM SHOULD ENSURE ITS INSPECTORS ARE PERFORMING FOLLOW-UP INSPECTIONS ON SEVERE VIOLATIONS TO ENSURE COMPLIANCE

Actions Taken

The Division is evaluating the necessary changes to the program database to enable tracking and managing all follow-up inspections to determine compliance activities that correct significant or severe violations.

Actions Planned

The Division will implement changes to the program database to enable tracking and managing all follow-up inspections to determine compliance activities that correct violations.

CREATE A RULE IN UTAH ADMINISTRATIVE CODE THAT WILL CREATE A CLASSIFICATION FOR LANDFILLS THAT WILL ALLOW THEM TO LEGALLY ACCEPT E & P WASTE

Actions Taken

The Division is undertaking the development of a rule that will create a new solid waste landfill classification to address the unique conditions and regulatory standards associated with the receipt and disposal of wastes from the extraction and production of oil and gas within Utah.

Actions Planned

The Division will develop and implement the rule as detailed above.

Chapter V – Division of Water Quality

CONSISTENTLY TRACK AND REPORT ON ITS PERMITS, INSPECTIONS, DEFICIENCIES, ENFORCEMENT ACTIONS, AND ENTITY COMPLIANCE

Actions Taken

The Division's permitting programs have begun evaluating how to standardize existing tracking systems including integration with EPA databases.

Actions Planned

The Division will pursue funding for development and maintenance of databases to consistently track all of the Division's permits, inspections, deficiencies, enforcement actions, and entity compliance. Costs to develop are estimated to be \$1 - 2 million and anticipated annual maintenance costs are \$200,000 - \$500,000 per year. In the interim, the new Compliance and Enforcement section manager will work with the Division's Information and Data Services section to develop in-house tracking systems that provide more consistent and comprehensive data tracking.

TRACK AND REPORT THE TIME IT TAKES FOR ITS REGULATED ENTITIES TO REACH COMPLIANCE

Actions Taken

The Division has consolidated the three permitting sections into two sections and created a new Compliance and Enforcement section that will be responsible for tracking and ensuring consistent and fair enforcement across all of DWQ's programs.

Actions Planned

The Division has begun the process of overhauling the Enforcement Management System for all water quality programs. The system will provide clarity to Division staff and permittees regarding enforcement steps. These steps will be incorporated into the new tracking system described above. Tracking time to reach compliance will be a key metric for the new section.

We look forward to successfully implementing the recommendations in the audit report and thank you again for the opportunity to participate in the process.

Sincerely,



Scott Baird (Aug 6, 2020 17:12 MDT)

Scott Baird
Executive Director