



**Governor's Office of Planning and Budget
Office of the Legislative Fiscal Analyst**

UPDES Permit Process

A Report for the Department of Environmental Quality

May 2026

TABLE OF CONTENTS

| 1

EXECUTIVE SUMMARY

| 15

CONCLUSION
& NEXT STEPS

| 2

INTRODUCTION

| 16

APPENDIX

| 6

ANALYSIS OF
CURRENT PROCESS

| 22

AGENCY RESPONSE

| 8

OPPORTUNITIES

| 25

AUTHORS

EXECUTIVE SUMMARY

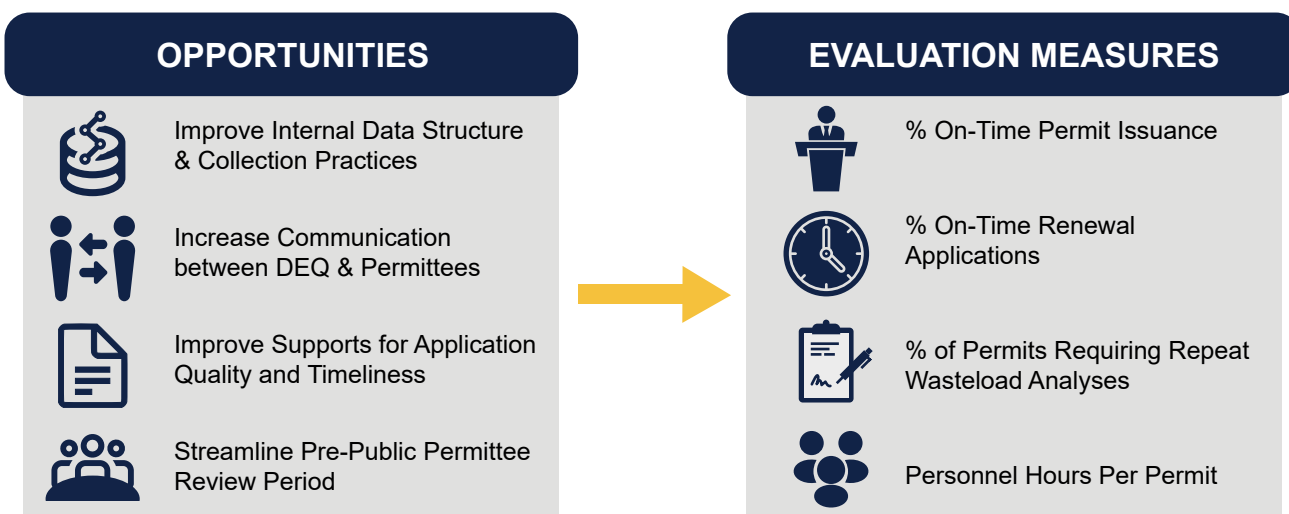
The Utah Division of Water Quality (DWQ), housed in The Department of Environmental Quality, issues and renews Individual Utah Pollutant Discharge Elimination System (UPDES) permits, which regulate pollutant discharges into Utah's waters to protect environmental quality and public health according to state and federal requirements. As environmental conditions have evolved and permitting requirements have become more complex, DWQ has experienced recurring delays in permit processing. In fiscal year (FY) 2025, only 52 percent of permits were renewed on or before their original expiration date.¹ Additionally, only 68 percent of permittees submitted complete applications on time,² contributing to delays before the review process formally begins. The average cycle time for permits issued in FY 2025 was 219 days,³ exceeding the 180-day expectation established in rule.

To address these challenges, the Governor's Office of Planning and Budget and the Office of the Legislative Fiscal Analyst (the evaluation team) partnered with DWQ to evaluate the current permitting process. The team identified several obstacles to timely permitting, including inconsistent quality of submitted permit applications and accompanying data and insufficient limits on pre-public notice permittee review periods. While DWQ's internal technical review processes generally function efficiently once it receives complete

information, these gaps in upstream communication and application readiness create rework and extend timelines for both staff and permittees.

This evaluation outlines key opportunities for DWQ to improve permitting efficiency and while maintaining its emphasis on collaborative permittee relationships. These opportunities include clarifying standards and providing support for application and data completeness, establishing clearer expectations and limits for review periods, reorganizing data systems, and improving coordination between permit writing and wasteload analysis teams. These improvements are expected to reduce rework, focus staff's time on the most substantive issues, and enable DWQ to more consistently issue updated permits within established timeframes.

This report also establishes performance measures to track improvements in timeliness, efficiency, data quality, and communication as changes are implemented. The evaluation team supports DWQ's continued efforts to modernize the UPDES permitting process, whether through the opportunities identified in this report or other solutions developed by the Division, to ensure the program remains transparent, consistent, and effective in protecting Utah's water resources.



¹ Based on performance data provided by the Division.

² Defined as at least 180 days prior to permit expiration; Based on performance data provided by the Division.

³ Based on performance data provided by the Division.

INTRODUCTION

PURPOSE & SCOPE

PURPOSE

The purpose of this evaluation is to:

1. Identify opportunities to improve the efficiency and timeliness of the UPDES permitting process.
2. Strengthen the Division's ability to issue clear, consistent, and appropriate permits.
3. Identify permitting best practices related to data collection and permit development that could be applied, as appropriate, across other DEQ permitting programs.

SCOPE

As part of the process review and analysis, the evaluation team examined the UPDES permitting process by:

- Reviewing existing policies and documented procedures.
- Interviewing key program staff, including administrative staff, permit writers, and wasteload analysts.
- Analyzing internal permitting process data and program financial data.

The Governor's Office of Planning and Budget and the Office of the Legislative Fiscal Analyst (the evaluation team) partnered with the Utah Department of Environmental Quality ("the Department") and its Division of Water Quality ("the Division") to conduct an efficiency evaluation of the Individual Utah Pollutant Discharge Elimination System (UPDES) permitting process. The UPDES program plays a critical role in safeguarding Utah's water resources by regulating the discharge of pollutants and ensuring compliance with federal and state requirements under the Clean Water Act.^{4,5} This mission aligns closely with

the Department's broader charge to "protect and improve Utah's air, land, and water while supporting communities and growth statewide."⁶ This evaluation sought to identify opportunities to strengthen the efficiency of the permitting process, improve timeliness, and support the Division's ability to issue clear, consistent, and appropriate permits. A secondary goal was to identify permitting best practices in both data collection and permit processes that the Department can apply across its other permitting programs as needed.

Figure 1. System map and position of evaluated process.



⁴ See Utah Code Section [19-5-108](#) and Utah Administrative Rule [R317-8](#).

⁵ <https://deq.utah.gov/water-quality/current-permits-and-forms-updes-permitting-program>.

⁶ <https://deq.utah.gov/general/about-deq>.

To support the Division’s implementation of process improvement and keep subsequent updates focused on measurable gains in efficiency and outcomes, the evaluation team developed a set of performance measures to be tracked and reported during the implementation phase (**see Table 1**). As improvements are implemented, these measures will help demonstrate whether changes are producing tangible impacts on key process indicators, including efficiency and on-time permit issuance.

Progress for these measures will be reported annually by October 1st, in accordance with [Utah State Code Section 63J-1-904\(3\)](#). DEQ has flexibility in the changes they implement to improve the metrics over time.

The evaluation team identified four opportunities for the Division to make process improvements and help achieve the targets associated with the measures below (**see Table 2**). These process changes are expected to improve the timely flow of permit applications through the system and reduce unnecessary rework.

Table 1. Summary of Evaluation Measures <i>See Appendix for detailed descriptions, measurement timeframes, and baseline and target values.</i>			
Icon	Title	Type	Goal
	1. % On-Time Permit Issuance	Timeliness	↑
	2. % On-Time Renewal Applications	Timeliness	↑
	3. % of Permits Requiring Repeat Wasteload Analyses	Quality	↓
	4. Personnel Hours per UPDES Permit	Cost	↓

Table 2. Summary of Opportunities, Suggested Next Steps, and Evaluation Measures

Opportunity 1: Increase Communication Between the Division and Permittees	Pg. #	Estimated Completion
1.1. Implement standard discussion items with new permittees	8	Pending
1.2. Increase proactive communication with permittees	8	Pending
1.3. Increase pre-application reminders and outreach	9	Pending
1.4. Create centralized repository of permit information	9	Pending
Opportunity 2: Improve Supports for Application Quality & Timeliness	Pg. #	Estimated Completion
2.1. Establish common definition of “complete” application	10	Pending
2.2. Add details to data requirements	10	Pending
2.3. Strengthen incentives and disincentives	11	Pending
2.4. Collect early applications	11	Pending
Opportunity 3: Streamline Pre-Public Notice Permittee Review Period	Pg. #	Estimated Completion
3.1. Define allowable pre-public notice revisions	12	Pending
3.2. Standardize and enforce pre-public notice review deadlines	12	Pending
Opportunity 4: Improve Internal Data Quality & Usage	Pg. #	Estimated Completion
4.1. Reorganize internal tracking data	13	Pending
4.2. Implement data quality best practices	13	Pending
4.3. Complete entry of historical data	14	Pending
4.4. Create regular shared internal reports	14	Pending

Table 3. Crosswalk of Process Improvements and Impacted Evaluation Measures

	Increase Communication With Permittees	Improve Application Quality	Streamline Permittee Review	Improve Internal Data
% On-Time Permit Issuance			✓	Improved data will support decision-making and planning throughout the process, impacting all outcomes
% On-Time Renewal Applications	✓	✓		
% of Permits Requiring Repeat Wasteload Analyses	✓	✓		
Personnel Hours	✓	✓		

ANALYSIS OF CURRENT PROCESS

Description of Current Process

The permitting process begins with an entity applying for either a new permit or a renewal of an existing permit. After the Division reviews the application for completeness, a request for a wasteload analysis (WLA) is submitted to an internal team of environmental scientists. Once the wasteload analysis is complete, the assigned permit writer prepares a draft permit, which is reviewed internally and then sent to the federal Environmental Protection Agency (EPA) and to the permittee for review. After this review period, the draft permit goes to public notice for 30 days. If comments received during public notice necessitate significant changes to the draft permit, the draft may return to the permit writing team or the wasteload analysis team for additional analysis and revisions. Otherwise, the final draft undergoes a final internal review before it is formally signed and issued.

Key Inefficiencies Identified

One of the core goals of this evaluation was to identify opportunities to improve timeliness of permit issuance. Current administrative rule establishes a 180-day standard, but this deadline is often missed. In FY25, it took an average of 219 days for a permit to go from a complete application to issuance, and 52% of permits were issued before their original expiration date.⁷ When the renewal process extends beyond the original expiration date, the Division grants facilities an administrative extension, allowing them to continue to operate under the conditions of their previous permit. While many of these cases are resolved

relatively quickly, others may remain on an extension for months or even years.

Some of these instances are due to delays related to interpretation of policy that need legal and technical analysis, which is outside the scope of process improvement recommendations. Therefore, this evaluation focused on identifying opportunities to improve timeliness for the majority of permits that reflect more typical levels of complexity.

Through analysis of the current process, the evaluation team found most delays in permit issuance result from either:

1. Rework of wasteload analyses or other permit drafting tasks due to incomplete information, or
2. Delays during the permittee review period prior to public notice.

The underlying causes of both inefficiencies may be:

1. Insufficient communication with permittees regarding expectations for their application submissions, and
2. Leniency around the length and scope of permittees' pre-public notice review.



The Department faces an inherent tension in the permitting process: maintaining collaborative relationships with permittees while enforcing procedural limits needed to issue permits in a timely manner.

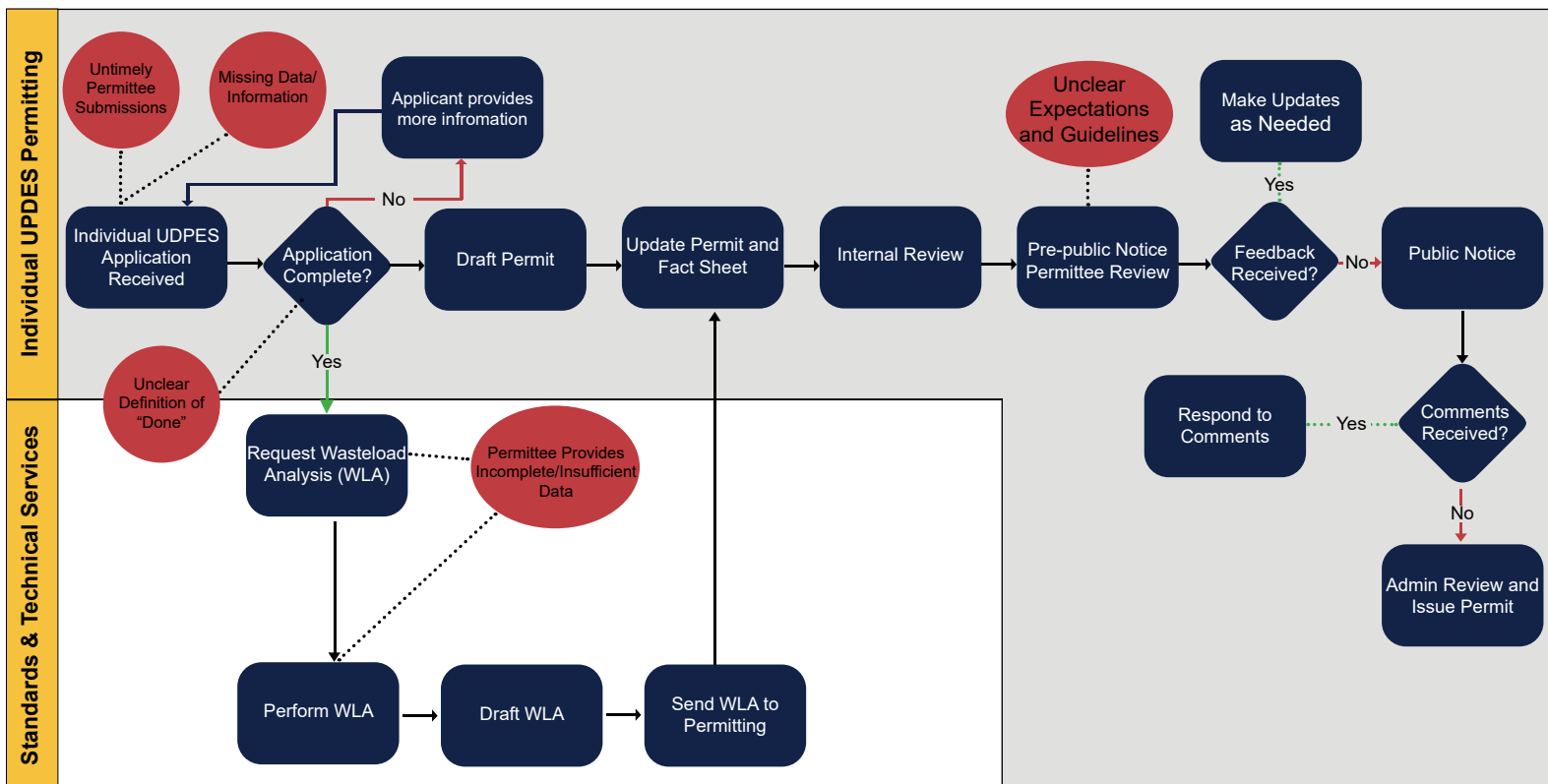
⁷ The EPA has an additional definition for "backlogged" permits, which are those still not issued 180 days or more after original expiration date. The majority of permits are issued before reaching this threshold, but there are some outliers that have been backlogged anywhere from several months to several years.

At the same time, changing environmental conditions and lower water levels statewide have led to stricter permit requirements and more frequent permit challenges, both of which impose significant time and cost demands on the Department. Although collaboration with permittees is appropriate and often beneficial, the Department must also be able to efficiently issue permits that adequately protect Utah’s water bodies. Achieving this balance requires consistently enforcing standards for application completeness, establishing clear consequences for late or incomplete submissions, and setting reasonable limits on the length and scope of permittees’ pre-public notice review.

Once the Division receives complete information, its internal workflows and processes already appear to be efficient and well-functioning. Therefore, the greatest efficiency gains will likely come from improvements to communication and permittee relationship practices over time.

Data tracking on the permit process is fairly new for the program, with consistent tracking beginning about two years ago. As higher quantity and quality data are collected over time, the Division will be better positioned to use permitting data to identify process constraints and make additional management decisions aimed at improving efficiency. Thus, this report contains guidelines for improving the program’s data collection practices.

Figure 2. Process map of the UPDES Permit Process.



OPPORTUNITIES

Opportunity 1: Increase Communication Between the Division and Permittees.

Strengthen UPDES permitting by implementing clearer, more frequent communication with permittees—including early discussions about potential future limit changes, periodic updates outside renewal cycles, additional reminders before applications are due, and maintaining a centralized online repository of current process information.

Root cause analysis and insights from Division staff gathered from interviews indicated that many of the current process delays and inefficiencies could be addressed through communication improvements between the Department and permittees. While communication alone will not resolve all permit limit disagreements, setting clearer expectations and providing more frequent updates for application requirements, review procedures, and changes in environmental conditions could help the Division prevent smaller issues earlier in the process. This focuses collaboration and negotiation with permittees on the most substantive items. The suggested communication improvements are listed in chronological order according to when in the permitting lifecycle they should be implemented.

Impacts on Process Operations & Efficiency

- Implement standard discussion items with new permittees.
- Increase proactive communication with permittees.
- Increase pre-application reminders and outreach.
- Create centralized repository of permit information.

Implement standard discussion items with new permittees

Sometimes difficulties arise in the permit renewal process when permittees learn their new permit may require upgrades to physical infrastructure in order to operate within tighter wasteload limits, depending on policy changes or environmental conditions (e.g., reduced water levels). This can be a significant capital expense. These instances could be reduced by addressing this possibility with new permittees in their earliest meetings with the Division. This approach would consistently enable new permittees to decide whether to build in additional capacity upfront, which can improve cost effectiveness and reduce friction in future renewal cycles, if requirements become more stringent.

Increase proactive communication with permittees

Individual UPDES permits are renewed on a five-year cycle, meaning that a permittee could go up to four years without formal contact until they receive their one-year permit renewal reminder letter. Because state law, Department rule, enforcement practices, and environmental conditions can all change significantly over that period of time, providing more regular updates to permittees would help set clear expectations, thereby reducing instances where permittees are surprised by significant changes between their old and new permits.

While it's not always possible to give real-time updates on individual facilities' water body conditions, general updates would still be valuable. For example, the Division could issue a group letter or regular series of letters to all permittees discharging into the Great Salt Lake to inform them of general changes in conditions or enforcement practices that are likely to impact those facilities.⁸

Increase pre-application reminders and outreach

To supplement one-year renewal reminder letters, the Division could issue additional reminders as application deadlines approach. This could be particularly helpful for smaller facilities that lack specialized or dedicated compliance staff. Some of these reminders could be automated and integrated with reports for upcoming renewals. For instance, the Division could send automated email reminders or individual outreach from permit writers at six months, three months, or one month prior to an application due date. This would allow the team to confirm whether applicants have a clear understanding of application requirements or are encountering any issues with compiling required information and data.

Create centralized repository of permit information

Based on customer survey feedback, the Division is already developing an online, centralized repository for information on the UPDES application process. The Division should continue this effort with a focus on making instructions simple, current, and relevant, including a clear description of the materials and information required for an application to be considered complete. When developing these informational materials, the Division should also consider the needs of smaller facilities that may need more support or explanation in order to submit timely and complete applications.

⁸ Interview with WLA team on 10/8/2025.

Opportunity 2: Improve Supports for Application Quality & Timeliness.

Improve timeliness and quality of renewal applications by establishing clearer completeness standards, strengthening data submission requirements, and incentivizing early and on-time applications.

The Division reported challenges with receiving timely and complete applications from some permittees. In the last two years, more than 30% of permit renewal applications have been submitted late.⁹ Improving the timeliness and quality of these upstream inputs will better position the Division to increase on-time issuance and reduce rework later in the process. The Division has an opportunity to improve timeliness and reduce rework by establishing clearer standards for completeness, providing instructional and technical support for facilities preparing their applications, and incentivizing on-time applications.

Impacts on Process Operations & Efficiency

- Establish common definition of “complete” application.
- Add details to data requirements.
- Strengthen incentives and disincentives.
- Collect early applications.

Establish common definition of “complete” application

The wasteload analysis team reported that they occasionally receive wasteload requests for applications that are deemed complete by the permit writing staff, but do not meet the WLA team’s needs. This results in delays because the WLA team must then contact the permittee to request additional data before they can begin their analysis work.

We recommend the permit team coordinate with the WLA team to:

1. Identify the information that is most often missing when an application is sent to the WLA team.
2. Update application instructions and forms as needed to ensure this information is clearly requested.
3. Update the permit team’s checklist for a “complete” application to verify that all needed information is received before sending a WLA request.

In addition to clarifying requirements for data formats and submission timelines, the Division should also consider updating its administrative rules or Department policies where appropriate to require that all available data be provided in the initial permit application, or assessing fees to permittees that request a revised WLA with data that could have been provided at initial application.

Add details to data requirements

Issues with the initial data permittees provide can cause significant inefficiencies in the wasteload analysis and subsequent drafting process. Interviews with the wasteload analysis team indicated that common issues include:

1. A lack of standard data submission formats.
2. Facilities providing summary or aggregate data rather than raw data, or
3. Certain data being provided after the team has already completed an initial wasteload analysis.¹⁰

⁹ Based on performance data provided by the Division.

¹⁰ Communication with Division staff on 10/14/2025.

These issues result in delays and rework, ultimately increasing costs for the Division and increasing the average time to permit issuance.

In addition to clarifying requirements for data submission formats and timelines, the Division should also consider updating its administrative rules or policies to require that all available data be provided up front, or assessing fees to permittees that request a revised WLA with data that could have been provided at initial application.

Strengthen incentives and disincentives

About 70% of applications have been submitted on time since tracking began two years ago,¹¹ but little to no consequences are currently enforced for late applications. Without operational or fee-based penalties for late submissions, delays negatively impact the Division's performance.

The Division could take a more proactive approach to encouraging on-time and complete applications by implementing both incentives and disincentives that emphasize the importance of timeliness in the permitting process. For example, the UPDES program's fee schedule could be updated to offer reduced application fees for applications submitted early (such as more than 30 days before the deadline), while graduated fees could be assessed for late submissions based on facility size or type. The Division could also consider assessing fees to cover personnel costs for repeat WLAs requested by permittees when the request is driven by data not provided in the original application. Any fee structure should account for a facility's ability to comply, including resource limitations faced by smaller or rural communities, to ensure the approach is equitable and practical.

Collect early applications

In some situations, the renewal process is virtually impossible to complete in fewer than 180 days because of analysis complexity or legal and policy issues. The Division has identified about 30 permits that are more complex due to factors such as discharge site characteristics, multi-agency monitoring, and community relations. In some of these cases, it would be preferable to require applications submitted prior to the standard 180 day deadline. While Division staff has stated that in some instances they will already request early submission for certain applications, the Division could explore:

1. Setting earlier application deadlines in rule for facilities that meet certain size or complexity thresholds.
2. Introducing incentives for early submission of complex permit applications.

¹¹ This figure also does not account for submissions that are later determined to be missing data needed for the WLA process, requiring additional communication between the permittee and the WLA team before analysis can begin.

Opportunity 3: Streamline Pre-Public Notice Permittee Review Period

Define and enforce review guidelines. Establish the types of revisions permittees may request during the draft review period, focusing on technical, factual, and minor accuracy corrections, while reserving substantive changes for the public notice period.

Each draft permit undergoes a review period during which permittees and the EPA may examine the draft and request revisions before it proceeds to public notice. The Division has noted a recent trend of extended review periods driven by factors such as changing environmental conditions and an increased likelihood of formal permit challenges. Staff report that this is where the most significant delays tend to occur.

We recommend that the Department take steps to more appropriately balance maintaining collaborative relationships with permittees with moving permits efficiently through the process. As improved timeliness is the goal, we recommend moving the balance more toward structured, limited review periods as much as possible.

To address this, the Department could find ways to balance collaborative relationships with permittees and improve the timeliness of permits going through the process. Pairing these efforts with the opportunities described above for improving communication and completing applications up front should help maintain permittee insight and input while tightening up the review period.

Impacts on Process Operations & Efficiency

- Define allowable pre-public notice revisions.
- Standardize and enforce pre-public notice review deadlines.

Define allowable pre-public notice revisions

While this review period is primarily intended to be an opportunity for permittees to suggest minor accuracy and technical corrections before going to public notice, there has been an increasing trend of permittees using this review period to challenge and request more substantive revisions to the content of a permit. This may be introducing additional delays leading up to the public notice period. To reduce these delays, we recommend that the Division introduce explicit guidelines for the types of revisions that permittees are allowed to request during this period (e.g., technical and factual accuracy, grammar and spelling errors, etc.). Not only improve timeliness, but also ensure that discussion about substantive content changes is conducted during the public notice period where all interested parties can give input.

Standardize and enforce pre-public notice review deadlines

Building on the suggested guidelines for permittee feedback, the Division could establish and consistently enforce deadlines for permittees to submit feedback and revisions prior to public notice. Because facilities are allowed to operate on administratively extended permits once the renewal process has begun, there is no incentive built into the process for permittees to complete their draft reviews quickly, which again can introduce significant delays. To address this, the Division should establish a clear deadline for this review period, as well as criteria or guidelines for conditions in which the Division would grant additional time for this review. This approach would help keep the process moving efficiently while maintaining fairness and transparency for all parties involved.

Opportunity 4: Improve Internal Data Structure & Collection Practices

Establish clear protocols for data organization, quality checks, and reporting within the UPDES program to enable timely, accurate analysis and support Department-wide modernization efforts.

The Department currently has an initiative to modernize permitting data and processes, including introduction of online user portals and efforts for more user-friendly and transparent dashboards. As part of this, the evaluation team identified several opportunities for the Individual UPDES program to prepare for more sophisticated IT systems and improve the quality and relevance of the data the Department collects. These improvements are based on principles that can be applied more broadly to permitting programs across the Department's other divisions, helping to align future IT improvements and data practices.¹² Because data has only been tracked for two years, this is an ideal time to take inventory of current data issues and strengthen the foundation of the tracking program.

Reorganize internal tracking data

Permitting process data is currently tracked in a single spreadsheet that functions as a list of facilities and their associated permits. The spreadsheet also logs permit issuance, renewal, and modification events. Reorganizing this data

into separate tables that serve clear functions can streamline any future moves to more formal data storage systems. Reorganizing the data in this way will also preserve data integrity by eliminating the need to overwrite previous entries for a single facility and be more conducive to detailed analysis (**See Appendix E for more detailed instructions**).

Implement data quality best practices

The current spreadsheet does not enforce standard data validation, making it difficult to perform basic calculations or analysis without extensive data cleaning. Because multiple staff members have access to add or update data, it's important that the Division standardize data input formats to maintain consistency. Some of the primary issues identified include:

1. Inconsistent data formats for date and categorical fields.
2. Multiple values or different data types stored in a single cell.

These issues can be easily addressed by creating a data dictionary, implementing automatic data validation, and creating additional fields as needed to store multiple unique values.¹³

Complete entry of historical data

Because the tracking program for UPDES permitting is relatively new, much of the historical data on past permit issuance and renewal activity is incomplete. Effective analysis of future changes in efficiency and performance rely on

Impacts on Process Operations & Efficiency

- Reorganize internal tracking data.
- Implement data quality best practices.
- Complete entry of historical data.
- Create regular shared internal reports.

¹² Please see Appendix D for general guiding principles for data collection and usage, including a series of questions the UPDES section staff should discuss and consider together as they implement the other recommended process improvements listed in this section. Please also see Appendix E for more detailed instructions and recommendations on improvements to the existing data sets and data quality best practices.

¹³ See Appendix E for more detailed instructions on specific data quality issues the team identified and how to implement these improvements.

understanding these historical baselines. While the Division has already worked to enter as much historical data as possible, the current dataset does not clearly indicate which fields are incomplete, nonexistent, or unlocatable. The Division could benefit by taking an inventory of the existing dataset to identify gaps, fill in as much historical data as possible, and then implement a standard system for indicating which fields are missing data.

Create regular shared internal reports

Program staff and wasteload analysts expressed in interviews with the evaluation team that the Division doesn't currently have a formal system for reporting upcoming permit renewals or tracking the status of a wasteload analysis request.¹⁴ By introducing a regular, shared report accessible to both the permit writing and wasteload analysis teams, the Division can improve coordination, better plan for variations in upcoming workload, optimize the use of employees' time, and ensure that wasteload analysis requests move smoothly and efficiently between the teams, reducing unnecessary delays.

The report on upcoming renewals could be linked to the existing datasets to generate an automated list of permits with upcoming expiration dates. However, the WLA request report may require a new workflow for permit writers to record when they've sent a request and for wasteload analysts to report on the completion status of that request.

¹⁴ Interviews with Division staff conducted on 10/7/2025 and 10/8/2025.

CONCLUSION & NEXT STEPS

Collectively, these suggestions aim to strengthen the efficiency, consistency, and transparency of the UPDES permitting process by addressing challenges at each stage of the application, analysis, and review. By improving the clarity of instructions and data requirements, reinforcing expectations for complete and timely submissions, and introducing more structured review periods, the Division can reduce unnecessary delays, support more predictable workflows for staff, and better position itself to meet statutory and performance goals. Taken together, these actions will help ensure both the Division and permittees have a shared understanding of the process and their responsibilities within that process.

Improving process performance remains the primary objective. If the Division identifies additional opportunities to address inefficiencies beyond those in this report, they should pursue those actions to enhance the evaluation measures. Outcome and system measures have been identified to ensure that efficiency improvements

do not compromise the quality or environmental protection goals of the program. These metrics provide context for maintaining mission-critical functions, including timely issuance of permits, accurate environmental oversight, and consistent protection of Utah’s water resources.

Table 3. Key Milestones & Dates		
Milestone	Description	Key Dates
1	Begin Implementation Phase with GOPB Support	Est. Start: January 2026
2	Finalize Implementation Phase	Est. Completion: January 2027
3	Data Collection for Evaluation Measures	Start: January 2026 End: Pending
4	OLAG May Begin Initial Validation of Implementation and Metrics	Anticipated in July 2027

APPENDIX

Appendix A. Overview of Efficiency Evaluation Process and Mandate

The Governor’s Office of Planning and Budget (GOPB) and the Office of the Legislative Fiscal Analyst (LFA) are directed in UCA 63J-1-904 to “jointly operate a process to identify and prioritize government processes to target for efficiency improvements.” To fulfill this directive, GOPB and LFA operate a joint efficiency evaluation team to select government processes and conduct reviews. Following the joint team’s report and time for the responsible agency to implement process improvements, progress is independently reviewed and verified by the Office of the Legislative Auditor General (OLAG).

In the 2025 General Session, H.B. 317 Executive Agency Innovation Incentives updated the statutory requirements in 63J-1-904 to specify that each efficiency improvement process should address “metrics demonstrating success, including: (i) service delivery savings; (ii) cost-savings; or (iii) time-savings” and “rewards, recognitions, or incentives” for agencies implementing efficiency recommendations. Reviewed agencies are also allowed to request that cost-savings resulting from efficiency improvements be retained as non-lapsing funds and be used for employee retention or employee performance incentives.

Appendix B. Methodology

Interviews

The evaluation team conducted interviews with administrators and staff from across the process system, including the Division’s administrative staff, permit writers, environmental scientists and wastewater analysts, and financial analysts.

Agency Data Requests

The evaluation team conducted analysis of current system efficiency, process flow, and outcomes based on internal agency data provided by the Division. This data was used to inform the creation of the evaluation measures that will be tracked and reported on following implementation.

Interstate Policy Scan

The evaluation team reached out to states with similarly structured pardons and paroles processes to inquire about those states’ best practices related to collecting and integrating mental health information into decisions. Although responses were limited, the team identified relevant information regarding Colorado’s implementation of various mental health assessment tools. Additionally, the team contacted the National Conference of State Legislatures (NCSL) for background research and resources on the use of mental health information in pardon and parole decisions.

Theory of Constraints & Rules of Flow

Throughout the evaluation process, the evaluation team worked to understand the current operations of the system through the lens of the “Theory of Constraints,” (TOC) which states that “every system, be it a manufacturing line, a service operation, or a project workflow, is bound by at least one constraint – a bottleneck or limiting factor that impedes progress and hinders the achievement of desired goals” ([Theory of Constraints](#)). After identifying the constraints present in the system, we developed opportunities intended to maximize the capacity of those constraints using existing resources and redesigning other process steps to support the needs of the constraints. Key TOC concepts such as “full kitting” and incorporating buffer time into processes informed many of our specific proposed solutions.

Appendix C. Detailed Evaluation Measures.

Table 4. Detailed Evaluation Measures

Note: All measures are based on the timeframe of one state fiscal year.

Note: The baseline figures presented in the table above are calculated using 2023 - 2025 data from the Division.

Icon	Measure	Description	Baseline Value	Target Value	Measure Type
	% On Time Permit Issuance	Of permits issued, the % of permits renewed on or before the original expiration date.	FY24: 63% FY25: 52%	70% (Stretch goal 80%)	Process - Timeliness
	% On-Time Renewal Applications	Of permits issued, the % of permits that received an on-time renewal application.	FY24: 67% FY26: 68%	75%	Process - Timeliness
	% of Applications with Repeat WLA	Of permits issued, the % of permit applications that required two or more wasteload analyses prior to the first public notice period.	Not available	Establish baseline, then decrease	Process - Quality
	Personnel Hours per Permit	Of permits issued, average personnel hours spent per UPDES permit from the date an application is received to the date a permit is issued.	Not available	Establish baseline, then decrease	Process - Quality

Appendix D. General Guidance for Data Collection and Usage

Structure Data With Future Analysis Needs in Mind

1. Identify data audiences & their needs (**see recommended questions to the right**).
2. Implement “data hygiene” best practices to improve data reliability and reduce future data cleaning work (**see recommended steps in Appendix E**).
3. Organize datasets so that they can be easily transferred to more sophisticated systems in the future
 - Use consistent field names and formats across tables that may need to be joined or cross-referenced in the future
 - Avoid creating data tables with dual purposes. For example, do not use the same data table as both a population list and an event log.

Carry Out Consistent Data Collection

1. Train staff on proper data input/formatting requirements
2. Conduct regular data collection and quality checks
3. Remember that the most important ingredient is sufficient time to collect data that can demonstrate trends over time and be analyzed in the context of process improvements or changes to external factors.

Make Data Visible and Perform Analysis

1. Create data analysis and visualization tools that allow target audiences to understand and interpret key trends and indicators.

Make Data-Driven Management Decisions and Process Improvements

1. Return to the answers from step 1 above,

and use the data collected to answer audiences’ key questions and to make data-informed management decisions.

Recommended Questions for Data Needs Planning

1. What audience(s) are we collecting this data for?
2. What questions should this data answer for our audience? What decisions will they make with this data?
3. If we have multiple audiences, where do their data needs overlap and where do they differ? How does that affect what data we need to collect and how we collect it?
4. Can the data we currently collect answer all of the questions listed above? If not, what additional data points do we need to start tracking or do we need to track anything differently?

Appendix E. Data Recommendations Specific to the Division’s IP Section Data Tracking

Create separate tables for each unit of analysis or data purpose. The current tracker spreadsheet is currently being used as both 1) an inventory of facilities and their associated permits, as well as 2) a log of permit issuance, renewal, and modification events. Data best practices would recommend creating at least two separate tables for these purposes.

One table should contain information on permitted facilities and their permit status. A second table should store the details of completed and in-progress permit issuance and renewal events. Separating this data out will 1) make analysis easier in the current Google Sheets format, 2) make it easier to import this data into other information system platforms/dashboards, and 3) preserve data integrity over time.

Over time, if the data contained in the current tracker is not reorganized into separate facility

list and permit event log tables, past cycles' permit activity data will be overwritten with more recent renewal activity, resulting in the loss of historical data that is critical for trend analysis and performance improvement measurement.

When separating the existing data set into new tables by function, make sure to include common fields that can be used to join the tables for future analysis. For instance, both a facility list table and a permit event table should include shared fields such as the permit number, facility ID, or facility name that contain identical information/data validation (**See shared fields highlighted in the example tables below**).

Facilities Table		
Facility Name	Permit Number	Address
ABC Facility	000001	123 Elm. Street
XYZ Facility	000002	456 Main Street
...	...	...
...	...	...

Permit Events Table		
Permit Number	Expiration Date	Permit Writer
000001	01/01/26	John Doe
000002	01/01/25	Jane Doe
000001	01/01/21	John Doe
000002	01/01/20	Jane Doe

Implement standard data input formats and data validation. The evaluation team found frequent inconsistencies in data formats both between similar fields and within a single field. See below for examples of these data issues and suggested solutions.

- 1. **Inconsistent Date values.** Fields containing event dates not only included date formats that varied between one date field to another, but formats also often varied within entries in a single date field.

Solution: Implement data validation on all date fields to require that all inputs be a valid date; format all date fields to use a consistent date format (e.g., MM/DD/YYYY or MM/DD/YY)

- 2. **Inconsistent Categorical Data.** Categorical fields (such as facility type, permit type, inspector name, or status) do not limit responses to selection from a validated list. This results in data quality issues such as misspelled names or slight variations in naming conventions, which makes analysis on the basis of these categories impossible without significant manual data cleaning.

Solution: Implement data validation on all categorical fields to require selection from a drop-down list. These lists can either be directly inputted into the data validation dialog box (if it is a list that is not expected to change), or the dropdown list can reference an external table that can be updated as needed (e.g., a list of employee names).

- 3. **Multiple Data Types in Same Field or Cell.** In several instances, a single column contained data entries in varying formats (e.g., some cells in the column contain a date and other cells contain text); in others, a single cell even contained multiple data types (e.g., both a date and a clarifying text note). This makes data analysis of those fields impossible without significant manual data cleaning or manual calculation.

Solution: Create separate columns to store different types of data, such as numerical or date values, and comment or text values. Implement data validation to allow only date, numerical value, text input etc. depending on the field.

4. Multiple Data Values in Same Cell.

Some fields (particularly date fields) have multiple values entered into a single cell. For example, public notice start and end dates are stored in a single cell. Multiple permit writers' names are also stored in a single cell. Some cells include up to six date values, in instances where a permit went through more than one public notice cycle. Analysis and calculations using those fields are impossible without significant manual data cleaning or manual calculation.

Solution: Create separate columns to record the date of each event, such as public notice start date and public notice end date. If it is frequent practice for multiple permit writers to be assigned to a permit, create a second column to record "Permit Writer 2", "Permit Writer 3" assignments as necessary.

5. Multiple Data Values in Same Cell.

Some fields (particularly date fields) have multiple values entered into a single cell. For example, public notice start and end dates are stored in a single cell. Multiple permit writers' names are also stored in a single cell. Some cells include up to six date values, in instances where a permit went through more than one public notice cycle. Analysis and calculations using those fields are impossible without significant manual data cleaning or manual calculation.

Solution: Create separate columns to record the date of each event, such as public notice start date and public notice end date. If it is frequent practice for multiple permit writers to be assigned to a permit, create a second column to record "Permit Writer 2", "Permit Writer 3" assignments as necessary.

Distinguish between missing data and instances where a field is not applicable. Many cells in the current spreadsheet are blank, but it is not always clear whether this is due to missing data or due to a given field being unnecessary or not applicable for a specific permit.

Discontinue the use of internal rows as section breaks or category headers. The current spreadsheet uses rows within the dataset itself as headers to separate permit types into sections (e.g., municipal, industrial, biosolids, pretreatment, potential, not renewing, and not moving forward). These internal rows make it so that the dataset can't be sorted by other columns for analysis purposes without losing the original row ordering. The categories listed in these headers should instead be formatted as options in a dropdown list in a new column and filled in for each row.

Create data dictionaries for each table. After the dataset is reorganized into tables separated by function, necessary data fields are identified, and data validation is implemented, create a data dictionary for each table to document parameters and instructions for each field. This will ensure consistent data entry over time, as well as support transparency and interpretability for external users who are less familiar with the data. The data dictionary should include the following information for each field:

1. **Short field name (for analysis).** This field name should be short (preferably no more than 10-15 characters) and cannot contain spaces or special characters. Underscores can be used to separate words if needed. For example, instead of "Permit Type" and "Expiration Date," the short names could be "type" and "exp_date."

These short field names are necessary so that data can be quickly analyzed using formula references to named ranges within Google Sheets, or in the future, for use in database querying languages such as SQL.

2. **Full field name.** This can be a longer, more descriptive field title with multiple words and

spaces, but conciseness should still be a priority.

3. **Field description.** Put any additional needed description or context here that is not clear from the field name itself. Include a brief explanation of any technical terms used in the title for users who may not be familiar.
4. **Field type.** Specify whether the field should contain a date, categorical data, numerical data, or a text string.
5. **Data validation requirements.**
 - Required data format—describe the requirements that the data in this field must meet, such as a date format (MM/DD/YY) or a numerical format (##.##).
 - For categorical data fields, either provide the list of options (if it's a short, unchanging list) or indicate where the list of options can be found.
6. **Other instructions or field information as necessary.**

Review Division records to make historical data as complete as possible. Once necessary data fields are identified, data validation is implemented, and a data dictionary is complete, the Division should review its records to fill in as much missing information as possible (especially dates of key milestones) for the existing entries. Any instances where data is truly missing should be indicated as such. This exercise is particularly important for the purposes of tracking improvement over time, because without a complete historical baseline against which to measure progress, it's difficult to reliably measure whether process efficiency is truly improving.

Example Data Dictionary					
Short Field Name	permit_id	type	exp_date	flow_mgd	app_comment
Full Field Name	Permit ID Number	Permit Type	Expiration Date	Flow (MGD)	Application Comments
Field Description (if necessary)	-	-	-	Facility's daily wastewater flow volume in millions of gallons per day	Division's comments on the application content or status as necessary
Field Type	String	Categorical	Date	Numerical	String
Data Validation Requirements	String beginning with "UT" followed by 7 numerical digits	Municipal, biosolids, industrial, pretreatment	Valid date in MM/DD/YY	Numerical value to 2 decimal points	Text description

Note: For easy reference, the order of the columns in the data dictionary should either be listed in alphabetical order or match the order of the columns in the actual dataset.

AGENCY RESPONSE



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of Environmental Quality

Tim Davis
Executive Director

DIVISION OF WATER QUALITY
Candice A. Hasenyager, P.E.
Director

April 2, 2026

Chris Labrum
Operations Analyst
Governor's Office of Planning and Budget

Laurie Haupt
Operations Analyst
Office of the Legislative Fiscal Analyst

Subject: UPDES Permit Process Efficiency Evaluation
Division of Water Quality Response

Dear Chris, Laurie, and the Joint Efficiency Evaluation Team,

The Department of Environmental Quality, Division of Water Quality (Division) appreciates the opportunity to respond to the report developed by the Joint Efficiency Evaluation team on the Utah Pollutant Discharge Elimination System (UPDES) Permitting Process.

We are grateful for the work of the Joint Efficiency Evaluation Team. The chance to have an external team evaluate the Individual UPDES Permitting Process from an outside perspective and identify opportunities for efficiency will contribute to the Division's continued efforts to streamline and improve the permitting process. The Division appreciates the time and dedication of the Joint Efficiency Evaluation Team in ensuring that the measures identified in the report are useful tools reflective of the work we are doing.

Please see the Division's attached response as it relates to the opportunities identified in the report.

Respectfully,

A handwritten signature in black ink that reads "Leanna N. Littler-Woolf".

Leanna N. Littler-Woolf
Assistant Director, Division of Water Quality

195 North 1950 West • Salt Lake City, UT
Mailing Address: PO Box 144870 • Salt Lake City, UT 84114-4870
Telephone (801) 536-4300 • Fax (801) 536-4301 • TDD 800 346-3128
www.deq.utah.gov
Printed on 100% recycled paper

Opportunities

Opportunity 1: Increase Communication Between the Division and Permittees

Division Response

The Division of Water Quality strives to maintain and improve the relationships with permittees, and we agree that increased communication between our agency and permittees has a positive impact on the permitting process. We already proactively implemented a number of the suggested approaches in the report including pre-application reminders and a centralized repository for permit information. In the past year, we began encouraging permittees to participate in both a pre-application meeting and a meeting to discuss draft permits, in hopes of ensuring a clearer and more transparent permitting process.

Opportunity 2: Improve Supports for Application Quality & Timeliness

Division Response

We agree with many of the items outlined in this section of the report, and continue to seek ways to support application quality and timeliness. However, we do have concerns with the proposal to “strengthen incentives and disincentives” relating to on-time permit applications. Permitting staff are funded through permit fees, therefore a reduction in permit fees for on-time applications reduces our ability to fund critical FTEs, as the fees were developed based on resources necessary to complete the work associated with permitting. Conversely, implementing a late permit fee for permittees that do not submit an application 180 days prior to permit expiration would disproportionately impact our rural communities that already struggle with resource constraints. As suggested, the Division is already encouraging permittees with complex permits to submit their application more than 180 days prior to permit expiration to allow for more collaboration.

Opportunity 3: Streamline Pre-Public Notice Permittee Review Period

Division Response

We agree that a more streamlined pre-public notice permittee review period should be implemented. The Division recognizes the importance of maintaining a balance between collaborative relationships and

timeliness of renewing permits. As recommended in the report, we will work to streamline this process, while continuing to collaborate with permittees during other touch points in the permitting process, and through implementation of other opportunities identified in the report.

Opportunity 4: Improve Internal Data Structure and Collection Practices

Division Response

We appreciate the suggestions regarding the data structure and collection practices. As mentioned, tracking associated with this process is relatively new, so external feedback on improvements is welcomed. We have already taken steps to implement the majority of the recommendations identified in this section and will continue to look for ways to improve and modernize our data structure and collection.

AUTHORS

This report was written as part of a joint collaboration between the Utah Governor’s Office of Planning and Budget and the Office of the Legislative Fiscal Analyst.

Governor’s Office of Planning & Budget



Steve Gehrke	Director of Operational Efficiencies
Logan Waechtler	Operations Analyst
Chris Labrum	Operations Analyst
Anna Ott	Research Analyst
Zeke Dayton	Research Fellow

Office of the Legislative Fiscal Analyst



Tim Bereece	Senior Operations Analyst
Laurie Haupt	Operations Analyst