



Department of Health
 2021-23 First Supplemental Budget Session
 Policy Level - QE - Upgrade Drinking Water System

Agency Recommendation Summary

The Office of Drinking Water (ODW) maintains an old, antiquate data system (Sentry) that is becoming obsolete and unable to comply with federal requirements. The effort to maintain the data system is cost prohibitive. Washington will soon be the only state that does not use the Environmental Protection Agency (EPA) supported data system known as Safe Drinking Water Information System State (SDWIS). Therefore, the Department of Health requests authority from the Safe Drinking Water Account to migrate data from the Sentry data system to SDWIS.

Fiscal Summary

| Fiscal Summary <i>Dollars in Thousands</i> | Fiscal Years | | Biennial | Fiscal Years | | Biennial |
|---|--------------|---------|----------|--------------|-------|----------|
| | 2022 | 2023 | 2021-23 | 2024 | 2025 | 2023-25 |
| Staffing | | | | | | |
| FTEs | 0.0 | 8.0 | 4.0 | 8.0 | 2.0 | 5.0 |
| Operating Expenditures | | | | | | |
| Fund 03R - 1 | \$0 | \$1,034 | \$1,034 | \$1,034 | \$264 | \$1,298 |
| Total Expenditures | \$0 | \$1,034 | \$1,034 | \$1,034 | \$264 | \$1,298 |
| Revenue | | | | | | |
| 03R - 0299 | \$0 | \$1,034 | \$1,034 | \$1,034 | \$264 | \$1,298 |
| Total Revenue | \$0 | \$1,034 | \$1,034 | \$1,034 | \$264 | \$1,298 |

Decision Package Description

The Department of Health (DOH), Office of Drinking Water (ODW), works to protect the health of Washington by ensuring safe and reliable drinking water. This includes enforcement of the federal Safe Drinking Water Act, where Washington State is delegated full authority and responsibility (also known as “primacy”) from the Environmental Protection Agency (EPA).

Critical to ODW’s operations is the Sentry data system, which contains all necessary drinking water system information including facilities, sample results, compliance and enforcement actions and legally responsible entities. This system is becoming cost prohibitive to maintain, therefore DOH is requesting an additional \$1,034,000 expenditure authority from the Safe Drinking Water Account, in both fiscal years 2023 and FY2024 and \$264,000 in FY2025, to migrate from the current data system Sentry to Safe Drinking Water Information System (SDWIS) State.

This migration has a three-year development roadmap to completion. SDWIS State is an EPA contractor supported data system used across the country and provides ODW access to some new, state-developed and EPA-provided add-ons such as data quality assurance and quality control (QA/QC) tools, Drinking Water Watch and other data tools. Due to Sentry limitations, ODW cannot currently report all water system violations and enforcement actions to EPA as required in its primacy agreement.

SDWIS State adoption fulfills DOH’s commitment to EPA on full data reporting for all violations and compliance actions along with other additional data elements that are currently not captured in the Sentry data system. ODW will be working with an EPA contractor to transition to the new system, but additional funding is needed to support this project.

Currently, Sentry data is reported to EPA through an extract, transform, load process to SDWIS Federal. There has been issues with this reporting due to errors in our transformation process resulting in unreported violations and data when water systems return to compliance. Updating or correcting data already submitted is time consuming and staff intensive. By migrating to SDWIS State, ODW will no longer have to rely on the transformation process and staff will be assured that data presented in SDWIS Federal is accurate.

This project is centered around a major data migration effort. While this migration will not disproportionately affect any communities, failure to

maintain the drinking water data system could negatively impact public health and ODW's ability to ensure safe and reliable drinking water. If ODW cannot maintain its data system and report as required to the EPA, ODW could lose federal funding that supports the program and the technical assistance provided to the small community water systems throughout the state. DOH may also lose the public's trust if the office cannot provide timely up-to-date water quality data to the public.

The decision to move to SDWIS State involved many factors. The following items were considered in the decision:

- Sentry is an old data system, and the cost to maintain our current system does not make sense anymore. DOH doesn't have the resources to fully support this work.
- Until recently, DOH was one of four states that maintained drinking water data in a custom system. The other three states are currently working to convert to SDWIS State. Washington will soon be the only "non-SDWIS" State.
- EPA has a contract in place with a vendor to assist states for these types of IT data activities. This allows DOH to work with a contractor that has successfully done this work before without having to develop a separate contract. This resource is essential in making this transition successful.
- The transition will ensure ODW can report everything as required in our primacy agreement. EPA will not continue to allow ODW not to fully report compliance data due to limitations in the current data system.

The transition from Sentry to SDWIS State will impact ODW staff, public water systems, drinking water laboratories, local health partners, and the public.

Assumptions and Calculations

Expansion, Reduction, Elimination or Alteration of a current program or service:

The \$2,332,000 of appropriation requested in this decision package is funded by the current Safe Drinking Water Account (03R-1) fund balance. This fund has an approximate fund balance of \$5,500,000.

In the 2017-2019 and 2019-2021 biennium, ODW spent \$1.9M and \$1.4M on operation and maintenance costs across our database systems. During the transition will need to maintain the current Sentry data system and ensure core business needs continue to be met.

Detailed Assumptions and Calculations:

The project is estimated to last 27 months and need 5.4 FTEs. The project costs include server hosting costings of \$18,000 per year which will be included in ODW ongoing operations and maintenance of their databases. These ongoing costs will be covered by the existing operations and maintenance budget which should be reduced after the database migration is complete.

Workforce Assumptions:

| Job Class | FTE | Salary at 1.0 FTE | Benefits at 1.0 FTE |
|--|------------|-------------------|---------------------|
| IT Business Analyst – Journey | 0.99 | 96,888 | 34,807 |
| IT Quality Assurance – Journey | 0.9 | 96,888 | 34,807 |
| IT Application Development – Senior/Specialist | 1.86 | 112,176 | 40,383 |
| IT Policy and Planning – Senior/Specialist | 0.02 | 112,176 | 40,383 |
| IT Project Management – Journey | 1.39 | 101,748 | 36,629 |
| IT System Administration – Senior Specialist | 0.18 | 106,824 | 38,456 |
| IT Business Analyst – Senior Specialist | 0.02 | 96,888 | 34,807 |
| IT Architecture – Senior Specialist | 0.02 | 117,792 | 42,402 |
| IT Security – Journey | 0.02 | 96,888 | 34,807 |
| Total = | 5.4 | | |

How is your proposal impacting equity in the state?

The transition from Sentry to SDWIS State will impact public water systems, drinking water laboratories, local health partners, and the residents they provide water to.

Strategic and Performance Outcomes

Strategic Framework:

The migration from the SENTRY database to the SDWIS system relates to the Governor's Results Washington Goal 5, Efficient, Effective, and Accountable Government. Migration to the national drinking water data system will allow ODW to focus our limited resources ensure safe and reliable drinking water instead of using these resources to routinely upgrade and improve our internal databases. EPA is responsible for maintaining and upgrading SDWIS State to meet new regulatory requirements. This will ensure the public has equitable access to the water quality data on Washington's public water systems and allow staff to focus on technical assistance instead of performing data cleanup to ensure proper reporting from the state's antiquated database to the national system.

The data migration also relates to the agency's strategic plan transformation of Data, Information, and Technology Innovations. The decision to migrate the data system was based on the Office of Drinking Water's business needs and fulfills our commitment to EPA on full data reporting for all violations and compliance actions while still ensuring public health protections.

This funding will come from the Safe Drinking Water Account (Fund 03R-1) account.

Performance Outcomes:

The data migration will allow ODW to meet its obligations and commitments to EPA on full data reporting on all violations and compliance actions. In addition, SDWIS State updates will be provided by the EPA when necessary to meet new Safe Drinking Water requirements, freeing up both business staff time and IT resources needed to meet new requirements. Currently ODW staff must track data separately from our current data systems to meet new regulations until Sentry can be enhanced.

The data migration may negatively impact local health partners that use the current data system to maintain data for Group B water systems not regulated by the Safe Drinking Water Act. SDWIS was designed to accommodate non-public (Group B) water systems, and in fact, may offer more functionality than Sentry. Non-federally-regulated contaminants, state violations, and state enforcement actions can all be stored in SDWIS. ODW will work with local partners to help maintain the necessary data they need to complete their work under our Memorandum of Agreements or Joint Plan of Responsibilities contracts.

Other Collateral Connections

Puget Sound Recovery:

None.

State Workforce Impacts:

None.

Intergovernmental:

The data migration to SDWIS State is supported by EPA to fulfill ODW commitments on full data reporting on all violations and compliance actions. The third-party contractor's evaluation in 2010 also recommended the transition to SDWIS State.

The data migration to SDWIS State could impact local health partners that use the current data base to track information on Group B water systems not regulated by the Safe Drinking Water Act. SDWIS was designed to accommodate non-public (Group B) water systems, and in fact, may offer more functionality than Sentry.

City and county governments use Sentry database to determine water availability for buildable lots served by public water systems. ODW

would need to ensure necessary data about operating permit status and the number of approved connections is easily assessable to these entities with additional supported add-ons.

A thorough evaluation of both Sentry and SDWIS was conducted by a third-party contractor in 2010. During the data migration an updated gap analysis will be conducted to further identify gaps between our current SENTRY database and SDWIS to determine possible solutions to ensure continued functionality of those items we deem necessary and leverage other states experiences and developed add-ons to ensure functionality for our partners.

Legal or Administrative Mandates:

The Office of Groundwater and Drinking Water (OGWDW) and the EPA Regions conduct a periodic file review to ensure that the data DOH reports to SDWIS is accurate and complete. The last EPA file review or audit identified the following.

As a non-SDWIS State, DOH finds reporting compliance actions and violations to EPA an issue with the state's current data system. The department has a pooled IT resource team. This can be challenging and the process for making changes can be slow. The knowledge about how the data system works is concentrated with some staff. This concentrated technical knowledge regarding how the data system works puts the program at risk for long-term data management continuity and sustainability.

In addition to concerns about the data systems, DOH has issues dealing with overlapping monitoring requirements and with reporting violations for deemed lower precedence, WA DOH determination, requirements.

In the audit report EPA made the following recommendations. The first two would be addressed by the SDWIS migration.

- DOH should continue to look into ways to transition to accept more sample results electronically and allow laboratories that can - to submit the sample results electronically. DOH can continue to manually enter sample results for those laboratories that cannot submit the data electronically.
- DOH should observe the proper procedures for assigning monitoring and reporting violations.
- DOH should consider assigning a dedicated IT staff person to better concentrate on drinking water data issues.

Stakeholder Response:

All Group A water systems and the public may be affected by the proposal of the transition of the data system and will need to learn about a new data system. ODW will need to provide some level of training on the new database to stakeholders including water utility owners such as for-profit owners and homeowner's associations, local health jurisdictions, local building and planning departments, and the general public. ODW does not anticipate any opposition to the proposed migration.

Changes from Current Law:

N/A

State Facilities Impacts:

None.

Reference Documents

[QE-Upgrade Drinking Water System IT addendum 2021-23.docx](#)

IT Addendum

Does this Decision Package include funding for any IT-related costs, including hardware, software, (including cloud-based services), contracts or IT staff?

Yes

Objects of Expenditure

| Objects of Expenditure <i>Dollars in Thousands</i> | Fiscal Years | | Biennial | Fiscal Years | | Biennial |
|---|--------------|-------|--------------|--------------|-------|--------------|
| | 2022 | 2023 | 2021-23 | 2024 | 2025 | 2023-25 |
| Obj. A | \$0 | \$697 | \$697 | \$697 | \$177 | \$874 |
| Obj. B | \$0 | \$240 | \$240 | \$240 | \$61 | \$301 |
| Obj. E | \$0 | \$42 | \$42 | \$42 | \$12 | \$54 |
| Obj. T | \$0 | \$55 | \$55 | \$55 | \$14 | \$69 |

Agency Contact Information

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