

2023 LEGISLATIVE REPORT

House Bill 2145 Implementation



OREGON



WATER RESOURCES
DEPARTMENT

STATE OF OREGON

2023 LEGISLATIVE REPORT

HOUSE BILL 2145 IMPLEMENTATION

STATE OF OREGON

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<https://www.oregon.gov/OWRD/programs/policylawandrules/LegislativeAndBudget/Pages/RequiredReports.aspx>



Executive Summary

In 2021, the legislature passed House Bill (HB) 2145 ([Chapter 610, Oregon Laws 2021](#)) to modernize the Water Resources Department's (Department) well construction program, including several key provisions meant to increase efficiency; prevent well deficiencies that can lead to contamination or waste of groundwater; better protect groundwater resources for Oregonians; and provide the well construction industry timely assurance that their work is meeting state requirements.

Well report reviews and on-site well inspections assess whether wells appear to be constructed in accordance with minimum well construction standards. Well report reviews and on-site well inspections reveal different types of deficiencies: therefore, both are important tools to protecting groundwater resources, and those who rely on them. The new law requires the Department to review all well reports (ORS 537.765) submitted after July 1, 2022, within 120 days. Well reports are submitted for all new construction, abandonments, and alterations. In addition to reviewing 100% of well reports, the Department aims to inspect at least 30% of all newly constructed wells, given current resources.

The bill requires the Department to submit two reports to the Legislative Assembly regarding the Department's review of well logs and inspection of wells including: (1) The number of well logs the Department has identified as having deficiencies and the nature of the deficiencies; (2) The number of inspected wells that had deficiencies and whether the nature of the deficiencies was observed on the well logs for the wells; and (3) The Department's workload associated with reviewing well logs and inspecting wells. Reports are due on or before January 31, 2023, and January 31, 2025.

This report covers well report reviews and inspections that occurred between July 1, 2022, and December 31, 2022. During this time, the Department received 2,446 well reports and completed 100% of well report reviews within 120 days of receipt as required by the law.

The number of well reports the Department has identified as having deficiencies and the nature of the deficiencies.

Between July 1, 2022, and December 31, 2022, the Department completed 2,446 well report reviews. Deficiencies are divided into three categories: construction deficiencies, incomplete reports, and late filings.

- *144 construction deficiencies* with issues that indicate the well does not meet minimum construction requirements and may harm the groundwater resource.
- *743 incomplete reports* identified as having missing information required by law; reports can be amended to correct the issue. These types of deficiencies constituted a majority of those found during well report review and have required significant staff time to remediate.
- *369 late filings of well reports* and associated construction documentation that were submitted to the Department after the filing deadlines.

Please note that one report may be included in more than one deficiency category.

The number of inspected wells that had deficiencies and whether the nature of the deficiencies was observed on the well reports for the wells.

Well report reviews and on-site well inspections reveal different types of deficiencies. Well report reviews largely reveal potential construction deficiencies below ground that are not visible during an

inspection. A typical report review includes an evaluation of all materials, methods and hydrogeological characteristics of aquifers encountered during drilling to ensure minimum construction standards are met to avoid negative impacts to the groundwater resource. On-site well inspections include a visual inspection of well casing height, annular seal (see diagram in appendix), well location, setbacks, construction materials, in addition to a static water measurement (level or elevation of water surface in a well not being pumped). On-site inspections generally reveal potential construction deficiencies that are observed on the ground surface that cannot be determined from a review of the well report. Both inspections and report reviews are important in identifying different deficiencies that may arise during construction.

Between July 1, 2022, and December 31, 2022, 741 wells received an on-site inspection. Thirty-one deficiencies were found during inspection, or roughly 4% of the wells inspected. In one case, deficiencies were found during an on-site inspection and also identified in a technical well report review; the remaining thirty deficiencies were only identified via the on-site inspection. In total, between inspections and well report reviews, 174 construction deficiencies were identified.

Given these findings, both well report reviews and physical well inspections are important to protecting groundwater resources, and those that rely on them. However, given that on-site inspections take more time, the Department can only inspect a portion of the newly constructed wells with current resources. Because different deficiencies are detected based on a well report review versus an on-site inspection, there are some construction deficiencies that are exclusively identified in the field that may be going undetected.

The Department's workload associated with reviewing well reports and inspecting wells.

The Department currently has seven well inspectors, whose primary duties include reviewing well reports and inspecting wells in the field. The addition of two inspectors funded by the legislature in 2021, coupled with efforts to streamline exempt use fees and maps collection, has expanded capacity for existing staff to take on the new workload of reviewing 100% of well reports within 120 days, while not reducing the number of on-site well inspections. The Department's goal is to inspect 30% of all new wells constructed.

There are seven other staff members in the Well Construction Section, who share responsibility in well report review and program oversight. The full impact on these staff has not yet been realized, given the recent and upcoming effective dates of the bill. The Department will include an update on these workloads in the next HB 2145 report to the legislature.

There has been significant increase in demand for information technology services in all areas of the agency. The modernization work associated with HB 2145 has exacerbated IT workloads. The Department will be seeking to better account for IT impacts of future budget and policy proposals.

Next Steps

The Department will submit its next report to the legislature in January 2025. In the interim, the Department will continue to implement HB 2145. The Department will be working with the well driller community to evaluate the reasons for and opportunities to reduce the number of deficiencies over time.

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Overview

In 2021, the legislature passed House Bill (HB) 2145 ([Chapter 610, Oregon Laws 2021](#)) to modernize the Water Resources Department's (Department) well construction program. The bill requires the Department to submit two reports to the Legislative Assembly regarding the Department's review of well logs and inspection of wells including: (1) The number of well logs the Department has identified as having deficiencies and the nature of the deficiencies; (2) The number of inspected wells that had deficiencies and whether the nature of the deficiencies was observed on the well logs for the wells; and (3) The Department's workload associated with reviewing well logs and inspecting wells. Reports are due on or before January 31, 2023 and January 31, 2025 ([section 22, chapter 610, Oregon Laws 2021](#)).

Background

The purposes of Oregon's Well Construction Program are: 1) to protect public health and safety by preventing wells from serving as a conduit for groundwater contamination, and 2) to protect groundwater resources for existing and future uses by preventing the draining of aquifers from improperly constructed wells. The provisions of HB 2145 modernized many aspects of the well construction program, including several key provisions meant to increase efficiency and prevent well deficiencies that can lead to contamination or waste of groundwater; better protect groundwater resources for Oregonians; and provide the well construction industry timely assurance that their work is meeting state requirements.

Both water wells and monitoring wells are regulated under the program. Water supply wells are wells that are constructed to beneficially withdraw or inject ground or surface water. Water supply wells include, but are not limited to, community, domestic, irrigation, industrial, municipal, and aquifer storage and recovery wells. Monitoring wells are wells designed and constructed to determine the physical, chemical, biological, or radiological properties of groundwater.

The new law requires the Department to review all the water supply and monitoring well reports (ORS 537.765) submitted after July 1, 2022, within 120 days. Well reports are submitted for all new construction, abandonments, and alterations. These reviews ensure that the submitted well reports are complete and that the wells appear to be constructed in accordance with minimum well construction standards. The Department also notifies the bonded well constructor that their report has been evaluated and follows up regarding any potential issues found during the well report reviews.

In addition to reviewing well reports, the Department also physically inspects a percentage of new wells drilled. These inspections ensure the final well construction appears to be completed in accordance with minimum well construction standards. A typical on-site well inspection includes a visual inspection of casing height, annular seal, well location, setbacks, construction materials, in addition to a static water measurement (level or elevation of water surface in a well not being pumped); the Department goal is to inspect at least 30% of all newly constructed wells given existing resources. Well report reviews and on-site well inspections reveal different types of deficiencies, and are both important tools to protecting groundwater resources, and those who rely on them. Appendix A displays the different components of a well, including both above and below ground components.

House Bill 2145 Implementation

This report covers well report reviews and inspections that occurred between July 1, 2022, and December 31, 2022. During this time, the Department received 2,446 well reports for both water supply and monitoring wells statewide. The Department has completed 100% of well report reviews within 120 days of receipt.

The number of well reports the department has identified as having deficiencies and the nature of the deficiencies.

Between July 1, 2022, and December 31, 2022, the Department completed 2,446 well report reviews. Deficiencies are divided into three categories: construction deficiencies, incomplete reports, and late filings. Please note that one report may be included in more than once deficiency category. For example, one report may have both construction and incomplete report deficiencies. It is counted both in construction and incomplete report counts.

144 well reports were found to have construction deficiencies. Construction deficiencies are issues that indicate the well does not meet minimum construction requirements and may harm the groundwater resource.

743 well reports were found to be incomplete. Incomplete report deficiencies are reports identified as having missing information required by law; reports can be amended to correct the issue. These types of deficiencies constituted a majority of those found during well report review and have required significant staff time to remediate.

369 well reports were found to have late filing deficiencies. Late filings are a count of well reports and associated construction documentation that are submitted to the Department after filing deadlines. The Department is evaluating opportunities to reduce the number of reports that are incomplete and/or late, including through ongoing education.

The number of inspected wells that had deficiencies and whether the nature of the deficiencies was observed on the well reports for the wells.

Well report reviews and on-site well inspections reveal different types of deficiencies. Well report reviews largely reveal potential construction deficiencies below ground that are not visible during an inspection. A typical report review includes an evaluation of all materials, methods and hydrogeological characteristics of aquifers encountered during drilling to ensure minimum construction standards are met to avoid negative impacts to the groundwater resource. On-site well inspections generally reveal potential construction deficiencies that are observed on the ground surface that cannot be determined from a review of the well report. Both inspections and report reviews are important in identifying different deficiencies that may arise during construction.

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There are seven other staff members in the Well Construction Section, who share responsibility in well report review and program oversight. Many of these staff reach out to well drillers to follow-up on deficiencies identified in well reports; this is a significant new workload for section staff but is essential in the efforts to resolve recognized deficiencies. The full impact on administrative staff has not yet been realized, given the recent effective dates of the bill's various provisions and the upcoming provisions in the bill that have not yet taken effect. The Department will include an update on these workloads in the next HB 2145 report to the legislature.

The modernization work associated with HB 2145 has exacerbated staffing and resource issues within the Department's IT section. Some of the significant IT tasks associated with HB 2145 include:

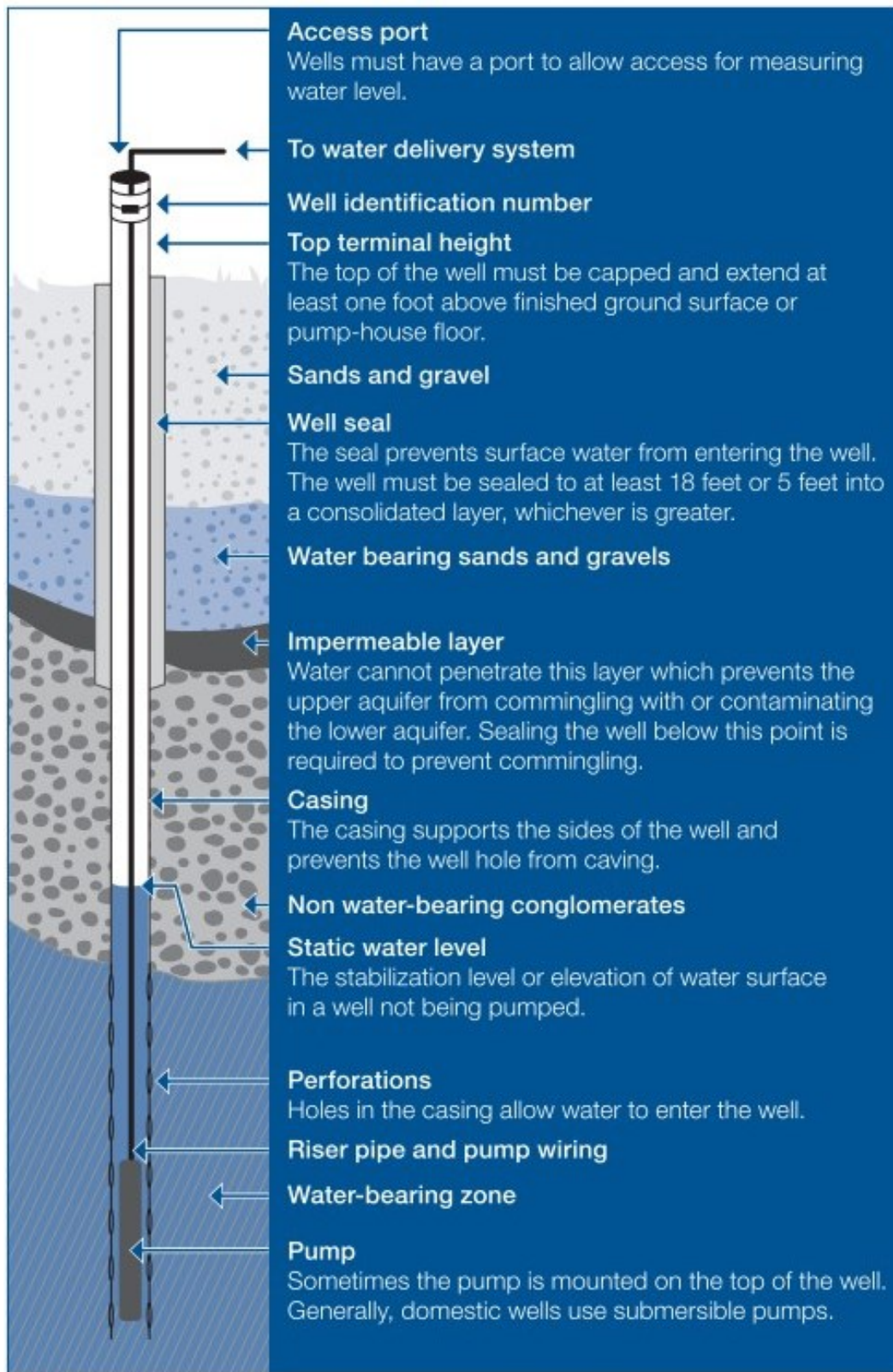
- Modernization of e-payment and document filing processes
- Development of Well Log Information System to document well report reviews
- Integration of well construction program tracking metrics
- Automated start card tracking system
- Modernization of well inspection database and data collection
- Consideration of impacts on other information systems that share data with the Well Log Information System

Information Technology continues to become both more complicated and more critical to Department operations. There has been significant increase in demand for information technology services in all areas of the Department, and the IT section has not been staffed to meet these needs. The Department is seeking to ensure that it accounts for the role of IT as policy and budget proposals are considered.

Next Steps

The Department will submit its next report to the legislature in January 2025. In the interim, the Department will continue to implement HB 2145. Given that late and incomplete filings accounted for a significant majority of the deficiencies, the Department will be working with the well driller community to evaluate the reasons and opportunities to reduce the number of reports that are incomplete and/or late. The Department also seeks to work with the industry so that construction deficiencies decline over time.

Appendix A. Water Well Diagram



This diagram shows the different components that make up a well.