

FISCAL AND ECONOMIC IMPACTS: CRITICAL GROUNDWATER AREA

The Department is proposing to establish a Critical Groundwater Area (CGWA) in the Harney Basin. The Basin has an established administrative boundary known as the Greater Harney Valley Groundwater Area of Concern (GHVGAC). Within this boundary, the proposed CGWA will be divided into seven subareas. Exhibits depicting the critical groundwater area and seven subarea boundaries are attached to proposed rule OAR 690-512-0020. The Department's proposed rules are expected to reduce total groundwater use throughout the CGWA by reducing pumpage by 35 percent compared to the estimated 2018 pumpage amounts, with the goal of stabilizing groundwater levels within 30 years.

Characterizing the Harney County economy

Agriculture plays a key role in many sectors in Harney County, accounting for roughly 24 percent of the economy across all sectors. Federal-owned, state-owned, and managed lands account for approximately 70 percent of Harney County acreage, while the other 30 percent is privately held land (Gingerich and others 2022). Approximately 8 percent (122,241 acres) of private land within the County is irrigated, and the remainder is pastureland (USDA 2022). By total sales, the main agricultural products in Harney County are livestock, which accounts for 63 percent of the total sales, and alfalfa, which accounts for 37 percent of the total sales (USDA 2022).

The Harney Basin's economy benefits significantly from its natural ecosystems, particularly the springs, streams, and wetlands that support recreational activities centered around the Malheur National Wildlife Refuge. This 187,000-acre refuge, located along the Pacific Flyway, attracts over 60,000 visitors annually and serves as a vital rest stop for approximately 6 million migratory birds annually (Harney County Watershed; High Desert Partnership 2025). Recreational activities such as bird watching and fishing contribute around \$3.4 million to the local economy yearly, supporting 85 jobs, \$7.2M in economic output, \$4.1M in value, and \$2.8M in labor income (Harney Collaborative, 2025). Recreational activities such as bird watching, fishing, and hunting contribute around \$3.4 million annually to the local economy, while supporting 85 jobs, \$7.2M in economic output, \$4.1M in value, and \$2.8M in labor income (Harney Collaborative 2025). In total, the ecosystem services of Harney County generate about \$200 million in overall recreational spending, underscoring the importance of maintaining the region's groundwater-dependent wetlands (Earth Economics, 2022).

Potential economic impacts of continued groundwater pumping

The proposed rules are expected to adversely impact the Harney Basin's agricultural-dependent economy if adopted. However, without the new rules, groundwater levels will continue to decline at unsustainable rates, adversely impacting not only the agriculture sector but also domestic well users, irrigation well users, and the basin's ecosystem services. This section attempts to quantify and qualitatively assess those impacts.

In the Harney Economic Model (HEM) report published by USGS and OSU, a simulation is used to assess the impacts on farm profits due to continued pumping at 2018 rates (W.K. Jeager, J. Antle S.B. Gingerich, and D. Bigelow, 2024). The simulation was run over 30 years and assumed the following:

- Farmlands irrigated by surface water continue at 2018 irrigation rates with no operational changes.
- Surface water accounts for 54 percent of the total irrigated farmland.
- No changes to non-irrigation well pumpage occur; they operate at their 2018 annual rates.
- Average recharge is determined by the Harney Basin Groundwater Model.

The simulation results indicate that farms remain profitable over the next 30 years. However, the results show that over those 30 years, farm profit will drop 10 percent, of which 8 percent may be attributed to reduced irrigated acres. The changes to farm profit and irrigated acres result from increased pumping costs due to declining groundwater levels. Combined, the changes to pumping cost and declining groundwater levels assume lower well yields in some locations experiencing larger magnitudes of decline (W.K. Jeager, J. Antle S.B. Gingerich, and D. Bigelow, 2024). Additionally, over the first 10 years of the simulation, groundwater-irrigated acres decreased by 3 percent, and the profit per hectare decreased by 2 percent.

These results suggest that while farms will still see profits, the magnitude of those profits is likely to decrease as groundwater levels continue to decline.

The economic impact on domestic well users of failing to act by adopting these new rules may be significant. In 2025, there are approximately 2,000 domestic wells in Harney County. Since 2022, continued groundwater declines in the Harney Basin have resulted in the Department receiving 16 new dry well reports from groundwater users in Harney County. Because dry well reporting is voluntary, more wells have likely gone dry without being reported. The Department's analysis using the Harney Basin Groundwater Model projects that 200 more domestic wells will go dry by the end of the century if groundwater pumping continues at the current rate. The Department reviewed grants funded by the Well Abandonment, Repair, and Replacement Fund (WARRF) and applications submitted to the Harney Domestic Well Fund (HDWF) between 2022 and 2024 from 14 landowners in Harney County. For a well repair, replacement, and abandonment project in Harney County, the costs were:

- Average cost of \$25K
- Maximum cost of \$40K
- Minimum cost of \$8.7K

If the projected 200 new dry wells need the same level of work as those that were previously awarded grants, the total average, maximum, and minimum costs to deepen and repair the projected 200 dry wells are:

- Average total cost of \$5M
- Maximum total cost of \$8M
- Minimum total cost of \$8.7K

The Harney Collaborative hired a consultant to assess alternatives for delivering domestic water to 1,086 households that rely on private wells (Anderson Perry & Associates 2019). Two alternatives were considered based on the assessment (Pilz et al. 2023). The first alternative was building a cistern for the 1,086 households, which must be filled 26 times yearly. Water would be obtained by constructing two

fire truck fill stations, which would be delivered using 12 or more trucks. Operation costs for this alternative would be \$7.5M annually, and the estimated capital cost would be \$12.3M. The average annual cost per household served was \$9,600 (Pilz et al. 2023). The second proposed alternative was a mixed approach of building a cistern for 652 households that the two constructed fire truck fill stations would fill; developing community wells for 380 households; and connecting the remaining 40 households to the municipal water systems of Burns and Hines. The estimated operation cost for the second proposed alternative was \$7.4M annually, with an estimated one-time capital cost of \$25.1 M (Pilz et al. 2023). This assessment was for 1086 wells, and the costs for all 2000 domestic wells would be higher. Ultimately, the Harney Collaborative chose neither of the proposed alternatives.

Continued groundwater declines will also impact irrigation well users. As groundwater levels decline, irrigation wells may require deepening to maintain production levels. The cost of deepening an irrigation well in the Harney Basin is roughly \$600 to \$750 per foot, depending on seal depth, borehole, casing size, gravel packs, liners, and screens. For example, a well with stainless steel screens and gravel packs drilled 250 feet deep is estimated to cost \$150,000. However, deepening a well to those depths may not provide the water necessary for some parts of the region to sustain a crop, livestock, or other domestic use. Additionally, power costs for pumping will go up due to the increased pumping depths.

The springs, streams, and Malheur Lake ecosystem services within the Harney Basin greatly depend on groundwater. If pumping levels continue at their current rate, groundwater levels will continue to decline, resulting in reduced return discharges to springs and streams. These springs and streams are relied upon by roughly six million birds that fly through the Pacific Flyway in the Harney Basin each year. Drying springs and streams most likely would impact the number of migratory birds visiting the Harney Basin yearly. Bird watching, one of the basin's main economic recreation drivers, could be impacted by reducing the migratory bird population. Additionally, dried springs will impact the fisheries of the basin, which could reduce the number of people coming to the basin to fish. Reduced spring and streamflow will also impact the populations of wildlife that are hunted for recreational purposes. Finally, reduced spring and streamflow will also decrease the availability of water and vegetation for domestic livestock grazing in the basin. Although the economic implications may be challenging to quantify, reductions in springs and streamflows will substantially impact water-dependent ecosystems and human populations that rely on these systems for recreational use and livestock grazing.

Potential economic impacts of implementation of the Harney Basin Critical Groundwater Area

Without the new rules, groundwater levels will continue to decline at unsustainable rates, adversely impacting the agriculture sector as well as domestic well users, irrigation well users, and the basin's ecosystem services. However, if adopted, the proposed rules will have some adverse economic impacts on Harney County. The Department's goal is to stabilize groundwater levels while limiting the economic impacts. The Department has made several public policy choices that limit economic impacts. For example, the Department set a goal of groundwater level stability rather than full water resource recovery. If recovery were the goal, the estimated economic impacts would be much higher because recovery would require regulating more groundwater users to return groundwater conditions to historic levels. In consultation with the Rules Advisory Committee (RAC), the Department optimized the Harney Groundwater Model to find the smallest reductions in groundwater pumping necessary to achieve groundwater stability of zero feet of decline at the end of 30 years. The proposed rules allow for a 30

year adjustment period, gradually increasing curtailment of pumpage every 6 years over the 30 year period, i.e., five adjustment phases, rather than implementing full curtailment immediately. At the request of the RAC, the Department included an adaptive management strategy that would allow for adjustment in curtailment amounts during each adjustment phase if groundwater levels fall significantly above or below expected trends. Finally, after a contested case process (see OAR 690-010), the Department will allocate the water based on the historic pumpage use, allowing more existing users to get water.

Stabilizing groundwater levels will benefit the number of domestic wells going dry. According to the department's analysis using the Harney Basin Groundwater Model, under these rules, the number of wells going dry is cut nearly in half compared to the number that would go dry in the absence of new rules. The total number of wells projected to go dry is 98 domestic wells.

The estimated cost for a well replacement/ repair in the Harney Basin is:

- Average cost of \$25K
- Maximum cost of \$40K
- Minimum cost of \$8.7K

To deepen and repair the 98 domestic wells that would go dry under the new rules, the average, maximum, and minimum estimated costs will be

- Average total cost of \$2.4M
- Maximum total cost of \$4M
- Minimum total cost of \$8.7K

To deepen and repair the 200 domestic wells that would go dry in the absence of the new rules, the average, maximum, and minimum costs were

- Average total cost of \$5M
- Maximum Total cost of \$8M
- Minimum total cost of \$1.74M

The total cost savings for implementing the full curtailment under the new rules is \$2.5M for the average cost, \$4M for the maximum cost, and \$887K for the minimum cost.

As the springs, streams, and Malheur Lake ecosystem services within the Harney Basin depend heavily on groundwater, the proposed rules expect to stabilize groundwater levels at a new level after 30 years. Groundwater declines will continue through the 30 year implementation; however, stabilizing the groundwater levels after 30 years may result in less spring and stream water going dry, thus reducing the long-term impacts to ecosystem services and the economy.

The RAC asked the Department to hire an independent economist to help evaluate the economic impacts of reducing groundwater use in the Harney Basin. The Department hired ECONorthwest to conduct the analysis, focusing on the economic impacts of reducing groundwater pumpage of the proposed Harney Basin CGWA, but not the economic impacts associated with hydraulically connected surface water. The Department asked ECONorthwest to assess economic impacts associated with crop

and livestock production and the ripple impacts on the general local economy, local government revenue, and local ecosystem services.

ECONorthwest used the Impact Analysis for Planning (IMPLAN) model to examine the economic impacts of reducing groundwater pumpage in Harney County. The IMPLAN model is a widely used regional input-output economic model to assess direct, indirect, and induced impacts of decision making. IMPLAN models consider linkages between 546 different economic sectors. The model also evaluates how money moves through the economy. ECONorthwest used a 33.6 percent curtailment in groundwater pumpage over 30 years, spanning 2023 to 2053. This 33.6 percent curtailment was the total reduction the Department proposed initially. This reduction was later adjusted to 35 percent following a sensitivity analysis run using the Harney Basin Groundwater Model (Gingerich, S.B., Boschmann, D.E., Grondin, G.H., and Schibel, 2024). A difference of 1.6 percent is likely not to significantly impact the final results. The results of the modeling effort should provide a reasonable approximation of the potential economic impacts of implementing a 35 percent reduction in groundwater use.

The IMPLAN model provides a snapshot of economic impacts at the end of the 30 year period. IMPLAN does not account for any adaptation by farmers, businesses, or the local government (ECONorthwest, 2025). The numbers discussed below summarize the model assumptions and results. For a more detailed discussion on ECONorthwest modeling, please see ECONorthwest, The Economic Impacts of Groundwater Management in Harney County, Oregon (2025), available at <https://www.oregon.gov/owrd/programs/policylawandrules/OARS/Pages/Division-512-Rulemaking.aspx>.

The IMPLAN model assumptions were as follows:

- No adaptation by farmers, local businesses, and the local government over the 30 year period.
- Alfalfa crop prices were \$273 per ton, based on a five-year average (2019 – 2023).
- A supplemental water right with its groundwater portion regulated off was assumed not to be irrigated.
- Livestock sale reduction is directly proportional to alfalfa reduction, in a one-to-one relationship. For example, if alfalfa production is reduced by 10 percent, livestock production will be reduced by 10 percent.
- Crop yields and water application are held constant.
- Tax rates and specially assessed values (SAV) do not change over the 30 years.

Groundwater pumping data was pulled from the Harney Economic Model (HEM) parcel data (W.K. Jeager, J. Antle S.B. Gingerich, and D. Bigelow, 2024). For the baseline year of 2023, i.e., pre-groundwater reductions, a total pumping volume of 133,000 acre-feet per year was applied on 48,000 acres. Based on interviews of alfalfa growers, ECONorthwest determined that between 5 percent and 35 percent of alfalfa produced stays in the basin. ECONorthwest assumed 20% of the alfalfa purchased stays in the basin. The pumping, acreage, and the 20% of alfalfa staying in the basin were input into the IMPLAN model. At the baseline year of 2023, there is:

- \$58M of total annual revenue is generated by alfalfa production
- \$65M of total annual revenue is generated by livestock

- \$125M is the total combined (alfalfa and livestock) annual revenue

At the end of the 30 years in ECONorthwest's analysis, full curtailment of 33.6 percent results in basin-wide pumping being reduced to 87,000 acre-feet per year, which allows 32,000 acres of land to be irrigated. Resulting in:

- \$40M of total alfalfa annual revenue reduced by \$19M
- \$42M of total livestock annual revenue reduced by \$22M
- \$82M is the total combined annual revenue (alfalfa and livestock), reduced by \$42M

ECONorthwest evaluated impacts beyond those associated with alfalfa and livestock production. The IMPLAN model assessed direct impacts on agriculture expenditures, indirect impacts on supply chain spending, and induced impacts on consumption-driven industries. At the baseline of \$123M, annual revenue:

- 670 jobs are supported by agriculture expenditures, generating \$36M of labor income
- 240 jobs are supported along the supply chain, generating \$10.5M of labor income
- 110 jobs are supported in consumption-driven spending, generating \$4.4M of labor income
- 1020 total jobs are supported by agricultural annual economic output, generating \$50.9M of labor income

For every acre-foot of groundwater pumped by agriculture, \$1,400 of additional economic activity is generated—\$926 direct output, \$356 indirect output, and \$119 indirect output.

At the end of the 30 years in ECONorthwest's analysis, full curtailment of 33.6 percent results in:

- 470 jobs remaining supported by agricultural expenditures, a decrease of 200 jobs, generating \$23M of labor income, a decrease of \$13M
- 160 jobs remaining supported along the supply chain, a decrease of 240 jobs, generating \$7.5M of labor income, a decrease of \$3M
- 70 jobs remaining supported in consumptive-driven spending, a decrease of 40 jobs, generating \$3M of labor income, a decrease of \$1.4M
- 700 total jobs remaining supported by agricultural annual economic output, a loss of 320 jobs and \$18M in labor income, and \$61M in annual economic output

In addition to the impacts on the agricultural economy, there will be impacts on local businesses in other sectors. These economic impacts will be felt acutely by businesses relying on farm labor and materials (e.g., seeds, fuel, vaccines) for livestock and crop production (ECONorthwest 2025). The IMPLAN model assumes the top ten agriculturally related small businesses most likely to be adversely impacted are those relating to:

- Supporting activities for agriculture and forestry
- Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming
- Other real estate, e.g., leasing land, renting apartments, and managing property
- Pharmaceutical preparation manufacturing, e.g., veterinary pharmacies and local feed stores

- All other crop farming
- Grain farming
- Oil and gas extraction to provide fuel for operating equipment and vehicles
- Monetary authorities and depository credit intermediation, e.g., banks and credit unions
- Wholesale of other nondurable goods merchant wholesalers, e.g., livestock supplies
- Insurance agencies, brokerages, and related activities

Note that the industries above were pulled from the IMPLAN model and are general economic titles that capture a broad spectrum of local small businesses.

Based on the IMPLAN model, the induced industries that will be impacted are:

- Limited-service restaurants
- Full-service restaurants
- Individual and family services e.g., elder care, childcare, etc.
- Retail – food and beverage stores
- Retail – general merchandise store
- Retail - miscellaneous
- Retail – motor vehicle and part dealers
- Other real estate related e.g. property management, renting activities
- Automotive repair and maintenance, except car washes

During the April 2025 RAC meeting, some RAC members and members of the public expressed concern with the assumption that livestock sale reductions are directly proportional to alfalfa reductions in a one-to-one relationship. Commentors suggested that characterizing impacts on livestock production in this manner overestimates the economic impacts of the proposed rules, because ranchers would find a new source of more affordable alfalfa rather than spend more or reduce their herd. ECONorthwest ran a sensitivity analysis holding the baseline for total annual revenue generated by livestock production (\$65M) constant through the economic analysis to address these concerns. The results of the analysis are:

- 160 total job losses over 30 years (compared with 320 total job losses)
- \$8M loss in total labor income (compared with \$18M loss in total labor income)
- \$22.4M total economic output loss (compared with \$61M total economic output)

These results suggest that assuming livestock production does not depend on the availability of local alfalfa cuts the rulemaking's estimated economic impacts by at least half. These results do not account for the cost of securing alternative alfalfa supplies, which may be available but are likely to be passed onto the consumer at higher costs.

The Department also considered the economic impacts of the proposed rules on power production. The Harney Electric Cooperative serves over 20,000 square miles in Southeast Oregon and Northern Nevada, which includes 4,000 power meters with 401 miles of transmission line and 2,616 miles of distribution lines spanning Harney, Malheur, Deschutes, Crook, Humboldt, and Lake counties (Harney Electric Cooperative 2025). To maintain its power delivery infrastructure, the Cooperative relies on profits generated from power used by irrigation pumps. The current rate for irrigation services is \$8.50 per kilowatt-hour (kWh), May through September, and \$9.50 per kWh, October through April (Harney

Electric Cooperative 2025). Because the new rules will reduce groundwater pumpage by 35 percent basin wide, fewer irrigation pivots will operate, potentially reducing profits for Harney Electric Cooperative. The Cooperative may have to raise rates to maintain its infrastructure, resulting in higher electricity costs for ratepayers.

COST OF COMPLIANCE:

Identify any state agencies, units of local government, and members of the public likely to be economically affected by the rule(s).

Oregon Water Resources Department

If proposed rules are adopted to curtail groundwater use in the Harney Basin by 35%, the Department will need to begin a formal legal process called a "contested case," as required by OAR 690-010 rules for Critical Groundwater Areas. This process would require inviting all 670 holders of permitted water rights to participate. Under current and new rules, exempt uses are not regulated or subject to the contested case process.

The Department already has a backlog of contested cases, and adding a case of this size (i.e., 670 rights holders) would add to the backlog further, slowing progress on pending cases. Between 2023 and 2025, the Department faced a \$1.6 million shortfall in its legal budget, which led to delays in processing some cases. Handling a contested case involving 670 water rights holders is expected to cost between \$750,000 and \$1 million, which could contribute further to the budget shortfall.

The Department would need to dedicate substantial staff time from various divisions to managing the contested case process. After the process, additional staff time would be needed to monitor and enforce the resulting regulations in the critical groundwater area.

Under the proposed rules, the Department must review groundwater levels in each of the seven subareas every six years, starting after the contested case process. This review will determine how much groundwater levels compare to the expected trajectories, which define the path for reaching stable groundwater levels.

To support this, the groundwater section will continue measuring groundwater levels every quarter—a task that takes three staff members about one week each quarter. After collecting the data, staff will analyze groundwater level changes across all seven subareas, taking a week.

Once the analysis is done, the Department will need to identify which groundwater users may be subject to new regulations. The results of the six-year review must then be shared at a public meeting, which also requires time and resources to organize and present.

Well Abandonment Repair and Replacement (WARRF) grants provide qualifying landowners 100 percent of the cost to repair, replace, or abandon a domestic well. Since 2021, \$6.4M has been available to award as grants. All available funds have been awarded to fund 247 wells, so the Department is not currently awarding any new grants. The Department will need to secure more funding before new grants may be awarded. Funding amounts and sources have varied since the program was implemented

in 2021, and new funding is not guaranteed. The Department is currently seeking \$1M as part of the 2025-27 biennium Governor's Request Budget, and an additional \$5M was proposed for funding through House Bill 2168 (2025). Given the fluctuation in funding levels of the WARRF funds and the high demand across the state, the estimated 98 domestic wells that will go dry under the proposed rules may not have access to these funds when a well goes dry.

Harney Domestic Well Fund (HDWF) grants are available only to landowners in the Greater Harney Valley Area of Groundwater Concern. The fund currently provides qualifying landowners 75 percent of the cost up to \$10,000 to repair or replace their well and 100 percent of the cost up to \$3,500 to abandon the replaced well. The fund was established in 2021 with \$500,000. The Department held one funding cycle in 2024 and awarded seven grants for a total of \$73,149. Six landowners accepted the grants for a total award of \$61,650. The Department will offer a funding cycle in fall 2025. If no changes are made to the fund, and future applicants seek the maximum funding available, funding is currently available to assist approximately 33 well owners.

Local Government

Harney County assesses land value to collect property taxes. A loss of irrigated land is expected to reduce collected property tax revenue. The County uses three different land class values to assess property taxes. Land Class 2 is fully irrigated, Land Class 3 is land with some irrigation, and Land Class 5 is land without irrigation. For comparison, Land Class 2 generates \$1,185 per acre in property tax revenue, while Land Class 5 generates \$93 per acre.

ECONorthwest analyzed the impacts of the new rules on property tax revenue, assuming tax rates and property assessment values do not change over the 30 year period. The analysis uses 2023 values and assumes all irrigated lands are Land Class 2, generating annual property tax revenue of \$57M. For 2023, the County levied an average tax of \$11.84 per \$1,000 of assessed value. The collected tax revenue is directed to the County's general fund, hospital fund, and local school districts. For every \$1,000 assessed:

- \$4.50 goes to the general fund
- \$1.93 goes to the hospital fund
- \$5.41 goes to the local school districts

ECONorthwest's analysis also assumes that approximately 25 percent of Land Class 2 will move to Land Class 5 after 30 years, and the 33.6 percent curtailment in groundwater use will be fully implemented. The total property tax revenue is estimated to decrease by \$12M to \$45M. The tax assessment revenue may be reduced by \$146,000, equating to \$55,000 in the general fund, \$24,000 for hospitals, and \$66,000 for local schools. In fiscal year 2024 – 25, the property tax revenue for Harney County was \$11M, a reduction of \$146,000, which is an estimated 1.3 percent decrease in annual property tax revenue collections. These impacts could likely impact local services provided by Harney County.

Members of the public

After the contested case process is complete, depending on the outcome, a groundwater user may be subject to a regulatory order curtailing groundwater use. Irrigators in the basin will be impacted to

different degrees, because curtailment severity depends on the size and seniority of the irrigation water rights within the respective subarea. Users with large irrigation rights and multiple pivots may have some of their most junior water right pivots regulated off. However, these users may be able to operate at a smaller-scale rate of production.

According to the U.S. Census of Agriculture (USDA 2022), there are 477 farms in Harney County, 22 percent of which are under 50 acres in size. Depending on the seniority of the water right held, an order regulating off-use may completely shut down a small 50-acre farm.

Analysis of the proposed rules by the Harney Groundwater Model estimates that 98 domestic wells will go dry by the century's end. The Department reviewed grants funded by the Well Abandonment, Repair, and Replacement Fund (WARRF) and applications submitted to the Harney Domestic Well Fund (HDWF) between 2022 and 2024 from 14 landowners in Harney County and determined that for a well repair or replacement and abandonment project, the cost was

- The average cost is \$25K
- The maximum cost is \$40K
- The minimum cost is \$8.7K

The cost to repair or replace and abandon each well varies depending on a variety of factors, for example, the depth of the well and the type of pump. Landowners who experience a dry well also have other increased costs not included in these estimates, which may include the cost for a storage tank and water delivery until their well is repaired or replaced, laundry service, and increased caregiving or cleaning costs if an elderly or ill individual lives in the home. Without factoring in the cost of inflation or other cost increases, based on the numbers above, the total cost to repair or replace and abandon the projected 98 wells that are projected to go dry is:

- Average total cost of \$5M
- Maximum Total cost of \$8M
- Minimum total cost of \$1.74M

The HDWF currently provides qualifying landowners with 75 percent of the cost up to \$10,000 to repair or replace their well and 100 percent of the cost up to \$3,500 to abandon the replaced well for a maximum award of \$13,500. The Department held one funding cycle in 2024 and awarded seven grants for a total of \$73,149. In addition to the \$73,149 awarded, the seven landowners' projected cost for their portion of the work totals \$55,698. HDWF currently has \$426,851 in funds available, which would assist with approximately 33 additional dry wells.

Homeowner's insurance and home warranty programs do not typically cover the cost of well repair or replacement, and grants or other funding for wells are limited. Given the limited availability of funds, domestic well users will most likely shoulder much of the financial burden of well repair and replacement.

Harney County is a remote area, and a limited number of well drillers, pump installers, electricians, and plumbers are available to restore water to homes. Even if a landowner has funds available from a grant

or another source, there is often a significant wait to complete the work. While waiting to complete the work, these families experience additional costs including water delivery (typically used for minimal culinary, drinking, flushing toilets, and basic hygiene), laundry service, and facilities for bathing or showering.

(2)(a) Effect on Small Businesses: Estimate the number and type of small businesses subject to the rule(s);

ORS 183.336 requires agencies to use available information to estimate the number and type of small businesses likely to be subject to the proposed rules. A small business is “a corporation, partnership, sole proprietorship or other legal entity formed to make a profit, which is independently owned and operated from all other businesses, and which has 50 or fewer employees” (ORS 183.310). Examples of small businesses that the new rules may positively or negatively impact include well drillers, private water systems, irrigators, small farms, ranches, builders, outfitters, tour guides, shops, hotels, and restaurants. According to the State of Oregon Employment Department (2025), there are 230 small businesses in Harney County (as defined by ORS 183.310) that pay unemployment insurance (UI) taxes. The sector breakdown is as follows:

Sectors of small businesses in Harney County

Natural Resources and Mining, 40
Construction, 23
Manufacturing, 4
Wholesale trade, 7
Retail trade, 19
Transportation, warehousing, and utilities, 7
Information, 4
Financial activities, 16
Professional and business services, 21
Private education and health services, 20
Leisure and hospitality, 31
Other services, 18

All Sectors, 230

Notably, this accounting does not include many businesses within the agricultural sector that are not required to pay unemployment insurance (UI) taxes. Also, the Department does not have information on the number of small farm businesses as defined by ORS 183.310. According to the U.S. Census of Agriculture (USDA 2022), there are 477 farms in Harney County, 22 percent of which are under 50 acres in size; of the 477 farms, 95 percent are family farms. A family farm is one where most of the business is owned by the operator and individuals related to them by blood, marriage, or adoption, including relatives who do not live in the operator’s household (USDA).

(2)(b) Effect on Small Businesses: Describe the expected reporting, recordkeeping, and administrative activities and cost required to comply with the rule(s);

In order to curtail groundwater use in Harney Basin by 35 percent, as proposed by the new rules, the Division 10 Critical Groundwater Area rules require initiating a contested case. The process entails the

Department inviting the 670 water rights holders in the designated CGWA to be parties in the contested case. The contested case process provides an opportunity for landowners to contest the groundwater curtailment orders issued by the Department. A water right holder does not need to participate in the contested case, but should the holder choose to do so, he/she is likely to incur significant legal fees to participate. These cases can take years to complete, requiring significant time, resources, and expertise to navigate the legal process.

(2)(c) Effect on Small Businesses: Estimate the cost of professional services, equipment supplies, labor, and increased administration required to comply with the rule(s).

After the contested case process is complete, depending on the outcome, a groundwater user may be subject to a regulatory order curtailing groundwater use. Irrigators in the basin will be impacted to various degrees because curtailment severity depends on the size and seniority of the irrigation water rights within the respective subarea. Users with large irrigation rights and multiple pivots may have some of their most junior water right pivots regulated off. However, they may be able to operate at a smaller-scale rate of production.

According to the U.S. Census of Agriculture (USDA 2022), there are 477 farms in Harney County, 22 percent of which are under 50 acres in size. Depending on the seniority of the water right held, an order regulating off-use may completely shut down a small 50-acre farm. Permitted groundwater rights holders who wish to participate in the contested case may choose to hire legal counsel, further adding an economic burden. This cost can vary based on the legal fees and how long the contested case lasts.

Documents relied upon

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