# CITY OF LARAMIE FACT SHEET—Q & A

## State of Wyoming 66th Legislature, House Bill No. 0198
## University of Wyoming Independent Water System

**Q. What is the issue?**

**A.** The University of Wyoming (UW) water supply is historically from the City of Laramie (COL) municipal water system for all potable (drinking water) and much of the non-potable (irrigation) needs. In 2015, UW received $2.6 million dollars in appropriation from the Wyoming Legislature for the renovation of the golf course irrigation system. UW approached the Wyoming Water Development Commission (WWDC) for a Level II Feasibility Study to develop their own groundwater supply. After many turns, the Level II study was bypassed and replaced with a Level III Construction Authorization to drill a well directly east of the golf course. This well drilling attempt was a failure as it did not yield sufficient gallons per minute. Unfortunately, the states $275,000 financial investment was a complete loss and waste. Fast forward to 2020, UW's Bord of Trustees appropriated $290,000 to drill two new additional irrigation wells, known as UW "A" and UW "B" and has also been referred to as the "Pilot Hill Well Project" given the proximity of the popular, newly-developed recreation area bearing the same name. Neither new well was part of the original state-funded WWDC project. UW applied for, and was granted, permits from the Wyoming State Engineer's Office (WYSEO) in December 2020, not only for irrigation of the Jacoby Golf Course, but for the entire UW campus.

**Q. Why is potable water being used to irrigate the golf course?**

**A.** The COL system typically operates on a blend of 60% ground water (Casper Aquifer) and 40% surface water (Laramie River). Surface water runs through the Water Treatment Plant to make it potable; however, all groundwater is lightly treated with chlorination and fluoridation only. This is because the groundwater source, the Casper Aquifer, is a Class 1 potable aquifer, as rated by the Wyoming Department of Environmental Quality (WYDEQ). The UW A & B wells will also pump this same potable water from the Class 1 aquifer.

**Q. Could non-potable water be supplied by the City to irrigate the golf course?**

**A.** Yes. The City has offered to work with UW to develop a regional non-potable irrigation system utilizing raw water from the Laramie River and/or from the Waste Water Treatment Plant effluent. Additionally, the City would be willing to collaborate with UW to supply untreated water from its existing municipal wells and/or a new well that would directly serve the golf course.. However, as stated above, the wells will be considered potable. The City is committed to finding collaborative solutions and has put its intentions in writing multiple times; to date, the University has acted only in a unilateral fashion and declined to act in partnership with the City.

**Q. What is the link between golf course irrigation and City water system?**

**A.** Until 2006, UW received free irrigation water from the City to irrigate the golf course. The golf course was constructed with a Federal Land and Water Conservation Grant that stipulated it must remain open to the public and this public benefit was considered an adequate justification for the City to provide water at no cost. This "free water" policy was controversial with residents who felt they were subsidizing community and collegiate golfing too heavily. After working with rate consultants, our City Council determined to institute charges for water. However, to ensure community access would continue, the City initially discounted the rate by -75% for up to 75,000 Kgallons. No other user receives such a deep discount.

**Q. The University is concerned that the cost of Jacoby water keeps rising every year.**

**A.** This rate has not risen in the past several years. The City has provided a discounted rate of $2.22, which in the current year is over -71% off the normal irrigation rate of $7.76. This discounted rate has not changed in five years since 2017.

**Q. How much are the citizens of Laramie paying to subsidize the Jacoby Golf course?**

**A.** The University uses, on average, 60,000 Kgallons of water to irrigate the golf course. The resident subsidy paid by citizens amounts to $5.54 ($7.76 - $2.22) per 1,000 Kgallons or approximately $332,400 per year. This amount is similar to the typical funding transferred to support the City's Recreation Center.

**Q. What does the University pay the City to irrigate Jacoby golf course?**

**A.** The University pays $2.22 per 1,000 Kgallon units of water. Golf course irrigation averages 60,000 Kgallons per year. This average yearly cost to the UW is $133,200, plus a meter fee of $5,523.

**Q. Why is their concern with the cost?**

**A.** Cost is based on how much water is used to irrigate and keep the turf green. The golf course has increased its usage of water with the new golf facility for athletics, club members (non-public) and, we understand from recent news articles, the intent to increase its desirability as a host site for revenue-generating amateur circuit golf events. Usage is also based on weather conditions. When Laramie has a mild spring with warm weather and little precipitation, more water is used for irrigation. However, this also generates higher revenues as more citizens are golfing and tournaments held. This correlation to revenue actually helps overall by bringing fixed costs down.

**Q. Has UW drilled their own irrigation wells?**

**A.** Yes. In 2020, UW drilled two high capacity production wells, one of which is located directly adjacent to an existing well permitted by the City. Although they have not notified the University as to the timing of connecting these well, it seem likely they will begin investing in the infrastructure to bring these wells online in 2021.

**Q. Is UW just going to irrigate Jacoby with these wells?**

**A.** No. UW intends to irrigate their entire campus with their new wells.

**Q. Why is the City concerned with the UW Well project?**

**A.** The City has many concerns, including but not limited to operational interference with the public water supply system and its wells, degradation of water quality in the Casper Aquifer, diminished flows in Spring Creek adversely impacting fish habitat, and the inability to meet future water demands as the City grows. Operationally, the City municipal system was designed to supply Jacoby and the UW campus, when the demand comes off the public system a flushing program will be required. Irrigation is a beneficial use in the public water system that maintains water quality. Periodic dumping of water into the storm sewer will preserves chlorination residence times in the system at the federally required levels. The City believes the drinking water supplied through municipal public water system is of the highest value and importance. The potential for conflict between two new UW irrigation wells and the City's public wells is high and the City must do everything possible to protect all users of the system and ensure sustainability and affordability of the water system for everyone.

**Q. Why did the City pass an ordinance requiring a well permit?**

**A.** The City passed the ordinance to safeguard the water resources of our residents. This permit would green light the University's irrigation effort at the golf course, but the University has refused to file for the permit. (The University has long maintained that it is not subject to any of the laws or regulations of the City of Laramie.) It is common across the nation for public water systems to have a permitting process for receiving non-potable water into their regulated service area. This ordinance was modeled after similar ordinances in Alpine, Jackson, and Gillette (WY) and in Sidney (NE), just to name a few. The permit protects assets like drainage and sewer systems from external and uncontrolled runoff and discharge, and protects City of Laramie water supply for current and future growth, including the availability of drinking water, sanitation and fire protection.

**Q. What is the cost of UW well project?**

**A.** The public really hasn't been privileged to understand all the costs associated with this project. A project like this would typically involve testing, permits, land purchase, drilling, and connection of wells into a piped irrigation system, which usually is quite costly. In order to deliver the water uphill to the golf course, a pump station would also be expected. These costs, in our experience, could be in the millions and would be certainly much more than the University currently pays into the City water system each year to irrigate the golf course which is approximately $140,000 annually (estimated 60,000 Kgallons).

**Q. What about operating costs related to the well project?**

**A.** The City believes the University will request stand-by water support that may require a stand-by rate and usage charges. Additionally, the pump stations electrical bill may be significant and could possibly equate to the bill they are paying for water. The City will incur additional costs because we must now flush our system regularly ("dump" water from hydrants) since that would no longer occur as a byproduct of irrigation. This process is necessary to keep quality within the system.

**Q. Why is UW focused on one line item within their budget?**

**A.** The University of Wyoming Independent Auditors Report and Financial Statement for June 30, 2020 reported the University operating expenses over $558.1 million (page 27) and total facility maintenance and operations is $33,616 million (page 20).
http://www.uwyo.edu/administration/financial-affairs/_fafiles/docs/reports/university-of-wyoming-fs-063020.pdf

**Q. Why vote no on this bill?**

**A.** This bill has broader implications in the state, as it allows the University to drill wells and construct and connect water lines to any building it owns, leases, or uses without coordination with public water systems. (In Laramie, UW owns 32% of all city lands.) This bill applies statewide and the University owns property throughout the state in many counties, such as Goshen, Natrona, Park, Laramie, Sheridan and Teton Counties to name a few. This bill will affect public water systems and water users, from cities to agricultural operators to special water and sewer districts, statewide.

## SUPPLEMENTARY INFORMATION:

**Q. What potential issues do the new UW wells pose to the City's existing water supply?**

**A.** This is a multi-faceted question because there are many potential issues, from operational to financial to water supply availability. New UW wells have been drilled in a location understood to be up-gradient from the existing City of Laramie (COL) Turner Wells at City Springs. They have also been drilled deeper than the COL wells. This means that even though the City's Turner Wells have senior water rights (1868), it will not be possible to compel the University to irrigate in a way that won't interfere with the COL wells because they do not fully penetrate the aquifer. Ultimately, the City Springs wells may have to be re-drilled in response to the wells authorized by the University Trustees and at significant expense.

Additionally, the COL is in the process of rehabilitating an existing older well to support growth in north Laramie. UW drilled one of its new irrigation wells less than 100 feet from the City's well, thus greatly increasing the chance of interference or conflict with wells producing water for the City system. The Casper Aquifer is Laramie's main insurance policy against prolonged drought. For instance, in 2002 the worst recorded year of runoff in the history of the Laramie River occurred and the entire population of Laramie was served by ground water from the aquifer. It took many years for water levels to recover in the aquifer as a result. Now, with the University planning to take water from the same aquifer at the same location, the COL's drought resiliency could be drastically reduced.

At this time, the extent of interference the new UW wells will have with City wells is not known but could be significant depending upon drought conditions. Section 4 of the Wyoming Public Service Commission Rules (PWSCR) requires that utilities, such as water systems, that interfere or may interfere with one another are to coordinate and take steps to eliminate the interference. If the interference is caused by a new system, the owner of the new system must pay for the correction and mitigation of any interference (Wyoming Chapter II General Regulations §4(f)). It is unclear if this regulation will apply to the University. The City has consistently taken the position that the cost to mitigate any impacts caused by the University's new wells must not be borne by the City and its rate payers.

This has also caused concern about degradation of water quality within the aquifer. Decades of data in the City Springs area documents the cross connection between geologic formations. City water operators are concerned that the University's new high production wells may de-water the upper portion of the Casper Aquifer and draw dissolution minerals downward into the Class I potable Casper Aquifer from the overlying Satanka shale formation. The City already experiences this occurrence during drought years, or when its wells are pumped heavily; however, we are able to manage a broad well system to prevent

this from happening. The City will not be able to require the University to do the same. City officials have requested repeatedly that pump tests occur and more data be gathered to gain a better understanding of the hydrogeologic effects of bringing the University's two new high production wells online; unfortunately, those requests have been declined at multiple junctures.

**Q. What potential issues do the new UW wells pose to the existing City's <u>water system operation</u>?**

**A.** Laramie's water system was designed to deliver large volumes of water to the University so our treatment and delivery processes would have to be reviewed and altered. Irrigation of large green spaces like parks and golf courses provide necessary flushing within our systems and comprises a beneficial use to operations and overall water quality. If irrigation discontinues, we'll expect stagnant water to become a major issue that will require development and implementation of an ongoing flushing program. It will be necessary to alter treatment and delivery processes to "blow off" water through fire hydrants on a regular basis in order to maintain sufficient chlorine residual in the area. Flushing programs require staff time and represent financial waste and greater cost. It will also be necessary to develop another sampling and testing program to monitor stagnancy and validate the efficacy of the flushing program. We'll need to contract with rate experts to develop a new billing structure for receiving imported wastewater that did not originate from the City water system, as well as develop a new "standby" water rate.

Finally, the City well system draws water from a wide area with multiple sources, giving us the ability to manage the aquifer by drawing water where and when it is abundant. This maintains higher reserves in the aquifer for times of drought. A large single source load like the new UW wells could hamper the City's ability to manage the wider area of the aquifer. When water is abundant, we may not be able to effectively use the available supply because one source is being overused. When water is short, the City water system may be disadvantage because some of the available storage is unused near the large single source load. The City requested the State of Wyoming condition the permits for the new University wells upon further testing to reveal the potential negative consequences *before* problems arise, but that request was declined at multiple junctures.

**Q. Isn't there enough water in the Casper Aquifer for all users?**

**A.** Well, it's rather complicated, as is always the case with water in the West it seems! Interstate water agreements limit overall ground water use in our area as it relates to the Platte River Recovery Implementation Plan (PRIPP). As written in the Wyoming State Constitution, waters within the borders of the State belong to the State. As such the State's Administrative Agency, the State Engineer's Office, has placed volumetric production caps on the COL ground water rights. While these production caps have not been exceeded to date, it is uncertain what the new UW wells will do to the COL's ability to expand the system to meet future demand.

Worse yet are potential implications under the Platte River Recovery Implementation Program (PPRIP). This is a United States Fish and Wildlife Service program that was implemented in 1997 and designed to increase flows in the Platte River in central Nebraska for several endangered species. Historical water usage was accounted for in the North Platte River drainages in Wyoming to develop baseline depletion numbers, which may not be exceeded under the program. If depletion baseline amounts are exceeded, then Wyoming users may need to provide make-up water to Nebraska. Since the implementation of PRRIP, there have been times when Laramie has exceeded its baseline but, luckily, the state has had enough surplus water elsewhere to cover this shortfall in total. However, this is never guaranteed. As part of the

permitting process for the UW A & B wells, the State Engineer assigned a significant portion (540 acre-feet) of the Upper Laramie allowance to UW. What this means is that Laramie may now have exposure under the PRRIP if it begins to consistently exceed the baseline depletion amount, which could stymie future growth and economic development.

**Q. Why can't the COL and UW come to an agreement about how to irrigate campus spaces?**

**A.** Many different compromises and solutions have been proposed to help resolve the situation but, to date, the University Trustees have indicated no desire to pursue any of the offered collaborative alternatives. These are a few of the alternatives that remain viable solutions from the City's perspective:

- Pursue a WWDC Level II study to develop a regional non-potable irrigation system for all open spaces within city limits, including the campus. This could be from many different sources, potentially including the transfer of irrigation water from the Monolith Ranch or from a purple pipe re-use system utilizing Wastewater Treatment Plant effluent. (Proposed in 2016)
- Rehabilitate the existing older City well as a joint COL/UW venture, sharing the drilling costs and production from the well for irrigation. (Proposed in 2018)
- Provide irrigation water to Jacoby from the existing Turner 2 municipal well. A water line could be installed that bypasses the chlorination unit, and infrastructure and operating costs could be negotiated between parties to provide irrigation water to UW as cheaply as possible. (Proposed in 2019)
- COL/UW share operation of the UW A & B wells, negating the need to rehabilitate the older existing City well. This could be accomplished through a standalone agreement, or in conjunction with providing water from the City's Turner No. 2 well. (Proposed in 2020)

**Q. Should the University have its own water system separate from the City system? How would the City water system be affected if it did?**

**A.** The University could operate a consecutive system to the City water system under state and federal regulations, but this would not be entirely separate. The City water system has been built over generations to support UW as our largest institutional user and it is not possible to "downsize" the water system after the fact in an effort to reduce the cost of overall operations. It is nearly always cheaper to consolidate water systems and attain economies of scale, as opposed to trying to decentralize into smaller systems. For the same reason, all major federal and state agencies encourage system consolidation and regionalization to ensure sustainability and the lowest possible cost of operating these life-sustaining systems, including Wyoming's relevant agencies! It is nearly certain that all rate categories in the municipal system will be impacted were the University to construct and operate, in whole or in part, a separate water system. The State has invested over $22 million to fund large transmission lines to service Albany County and University of Wyoming in just the last ten years and that investment, over the past 50 years, is even greater. Those investments are wasted if the decision now is to reverse historical course in favor or decentralizing and the operating two parallel systems both needing significant investments to support.