



February 17, 2023

Ms. Nicole Twing, P.G.
UIC Program Manager
Wyoming Department of Environmental Quality, Water Quality Division
200 W 17th St, 2nd Floor, Cheyenne, WY 82002
RE: R Lazy S Ranch Proposed Underground Injection Control Class V 5E3 Permit (No. 2021-265)

Dear Ms. Twing,

On behalf of Protect Our Water Jackson Hole (POWJH), I am pleased to submit this letter in response to the Wyoming Department of Environmental Quality's (WDEQ) January 18th, 2023 public notice inviting comments on the above-referenced proposed Underground Injection Control (UIC) permit.

POWJH is a nonprofit organization dedicated to serving Teton County, WY as a powerful advocate for restoring and protecting the surface and groundwater in the Snake River Headwaters.

R Lazy S Ranch is a guest ranch serving 13 guest cabins, a lodge, an office, and 13 employee housing units from June to September annually. The injection facility consists of five (5) leach fields and is authorized to inject 7,210 gallons per day (gpd) maximum and 4,326 gpd average, primary treated domestic wastewater into the Alluvial Aquifer along the Snake River. Injection wells are located in the NE 1/4 NW 1/4 of Section 20, Township 42 North, Range 116 West, of the 6th Principal Meridian, Teton County, Wyoming.

The groundwater in the Alluvial Aquifer along Snake River is classified as Class I according to Wyoming Water Quality Rules, Chapter 8. Groundwater of Class I shall not be degraded to make it unusable as a source of water for its intended use. Additionally, this property is adjacent to Lake Creek (a Wyoming Class 1 Outstanding Water), a tributary to Fish Creek (another Class 1 Outstanding Water that is Impaired for fecal bacteria contamination). Finally, WDEQ has indicated that portions of the facility are located in the wellhead protection area/sourcewater protection zones 1 and 2 (with two public water supply wells located at the facility), which requires additional treatment.

POWJH has the following questions and concerns regarding the draft permit:

- The presentation of information for the current draft permit (compliance history, up-to-date site map, and justification for permit standards) is quite confounding. A focused presentation of information would greatly assist the public effort to evaluate the terms and scope of the draft permit.



- It is difficult to determine what the height between the bottom of each leach field and top of the water table is for the facility. If the facility is reporting these values, what quantitative metric exists to ensure that an adequate buffer exists between the discharge points and alluvial aquifer?
- Due to the large volume of water moving through the alluvial aquifer, it is likely that rapid dilution of effluent is occurring hours after it is discharged from the facility. While the highest recorded nitrate concentration from a monitoring well was less than 10ppm, it is unlikely that this monitoring well is representative of the true effluent quality as it enters the groundwater. More frequent and representative monitoring of effluent and its impacts on groundwater in/around the facility is strongly encouraged.
- Semi-annual reporting of ammonia, chloride, nitrate, and pH is insufficient to ensure that wastewater discharge is not contributing pollution to the alluvial aquifer and connected surface waters (Lake Creek, Fish Creek, and the Snake River). Why does a facility permitted to discharge a wastewater volume more than double that of a small wastewater facility not have to meet the same performance standards of the smaller facility? Performance standards should be established to ensure that effluent nitrate concentrations less than 10ppm and log-4 removal of pathogens has occurred before the discharge leaves the facility boundary.

POWJH commends the work that has already been done to improve this facility. It is clear that R Lazy S has worked closely with WDEQ to update their operations to mitigate water quality impacts from effluent discharge. However, it is unclear how these steps have manifested into water quality improvements at/adjacent to the facility. Straightforward monitoring and presentation of data will go a long way towards ensuring that the protected ground- and surface waters near the facility are safeguarded from the harmful impacts of effluent discharge.

We appreciate the opportunity to provide comments on UIC Class V 5E3 Permit No. 2021-265 and we look forward to WDEQ's response to our specific questions and comments.

Sincerely,

Matt Bambach
Water Quality Advocate