



January 19, 2023

Laramie Planning Commission
P.O. Box C
Laramie, WY 82073

RE: Laramie Planning Commission Meeting Response – December 12, 2022

Commissioners:

At the December 12, 2022, Planning Commission meeting, the Commission denied the application for a Comprehensive Plan Amendment (CPA-22-01) to allow residential development at the property owned by Laradise Land, LLC on the east end of town, adjacent to Grand Avenue. One of the reasons stated by Commissioners for denial was that residential developments posed a higher risk to the Casper Aquifer than commercial developments. This letter is intended to address this discussion.

During the December 12th meeting, Planning Manager Derek Teini indicated that commercial developments are often perceived to be higher risk to the Casper Aquifer due to accumulation of hydrocarbon products (fuel, oil, etc.) on large parking lots associated with commercial developments such as hotels, restaurants, office buildings, etc. These products can then be transported via stormwater runoff to vulnerable features (faults, drainages, etc.), if appropriate measures are not in place. These measures may include grading away from vulnerable features, conveyance structures to convey runoff across vulnerable features, and/or water treatment prior to discharge. Based on Trihydro's experience with numerous site-specific investigations related to commercial developments in the Casper Aquifer Protection Zone (CAPZ), we can confirm that parking lots associated with the proposed developments are often the highest concern and have resulted in denial of the requested permits/approvals or resulted in cumbersome and expensive engineering controls that make the proposed developments impractical or cost prohibitive.

In comparison, residential developments generally have less impervious surface, and as a result, less runoff and less potential threat to groundwater. The January 13, 2023 memorandum from Engineering Associates (EA), provides examples of residential versus commercial developments illustrating this point. The memorandum acknowledges that many of the potential risks to groundwater associated with commercial developments are the same as those associated with residential developments. The difference being the volume of substances that are potentially generated by each type of development.

Additionally, the EA memorandum points out that, generally, commercial developments are associated with more vehicle traffic (increased fluid leaks onto impervious surfaces) and more sanitary waste compared to residential developments in an area equivalent comparison (EA 2023).



Laramie Planning Commission
January 19, 2023
Page 2

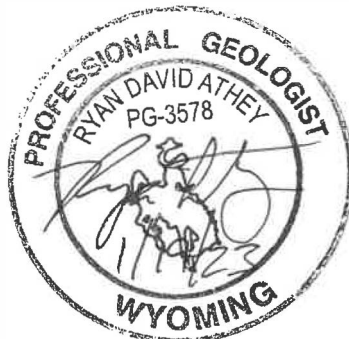
The EA memorandum states that residential developments may be more of a threat to groundwater from improper application of fertilizers, pesticides, and herbicides due to professional application at commercial developments (EA 2023). This issue could be mitigated through the establishment of a Homeowners Association (HOA) to manage professional landscape maintenance for the residential development.

Likewise, EA points out that, due to the transient nature of people visiting a commercial development, the likelihood of improper disposal of fluids that could impact groundwater is less than that in a residential development (EA 2023). This issue could also be mitigated by the establishment of an HOA with enforcement through the HOA to reduce the likelihood of residents disposing of potentially harmful fluids on their properties.

Please add this letter to the documentation file for this project. If you have questions or need further information, please call me at (307) 745-7474.

Sincerely,
Trihydro Corporation

Ryan Athey, P.G.
Project Manager



78E-001-001

References

Engineering Associates (EA). 2023. Threat to Groundwater Comparison: Residential vs Commercial [Memorandum]. January 13, 2023.