

Hunter, Grant , Honourable

Minister of Environment and Protected Areas

Members of Executive Council

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Elmeligi, Sarah, MLA

New Democratic Members (Official Opposition)

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Dear Honourable Grant Hunter and Dr. Elmeligi,

I am writing regarding serious concerns about the safety, regulation, and oversight of the drinking-water wells supplying residents of Elbow River Estates.

A replacement well was drilled in 2023 and reportedly placed into service before the required Point of Diversion licence amendment had been obtained. During the subsequent application process, residents raised numerous concerns with Alberta Environment and Protected Areas. Despite these unresolved concerns, the application was approved.

Of primary concern is the continued designation of this groundwater source as “High Quality,” based largely on a determination made decades ago. Since that designation, the physical conditions surrounding the wells have changed considerably.

The Elbow River Estates wells are located on the Glencoe Golf Course. The Glencoe lands have been identified as being within a floodplain; however, AEPA has advised that the Elbow River Estates wells are not considered to be on a floodplain. This appears contradictory and requires a clear, evidence-based explanation. If the wells are physically located on Glencoe Golf Course lands that are recognized as floodplain, residents need to understand how AEPA concluded that the wells themselves are outside the floodplain and what mapping, elevations, surveys, or hydrogeological evidence supports that conclusion.

The area was directly affected by the 2013 flood, which affected the Elbow River, surrounding

lands, and potentially the associated aquifers. The wells are also situated beneath or near an actively maintained golf course where fertilizers, pesticides, herbicides, and other turf-management chemicals may be used.

AEPA was repeatedly asked to provide the current scientific evidence, hydrogeological studies, floodplain mapping, and testing supporting the continued High Quality Groundwater designation. We also asked what investigation had been undertaken to determine whether the aquifer could be Groundwater Under the Direct Influence of surface water. Clear answers and supporting documentation were not provided.

At a minimum, residents requested comprehensive raw-water testing directly from the wells before treatment. Testing treated water from random locations in the distribution system does not establish the condition of the aquifer or identify what contaminants may be entering the treatment plant. Raw-water testing is essential to assess possible flood, agricultural, golf-course, bacterial, or surface-water influence.

Additional concerns include:

- The condition, security, and inspection history of the wellheads and well caps do not appear to have been properly verified or documented, despite concerns visible in the available well information and records.
- Records concerning the wells, their locations, operating status, licensing history, and sampling locations have been incomplete, inconsistent, or unavailable.
- Officials have been unable to clearly identify where certain historical water samples were collected or which well was supplying the water at the time.
- Residents have not received adequate evidence demonstrating that the 2023 replacement well is hydrogeologically equivalent to the original licensed well.
- There has been no satisfactory explanation of how the 2013 flood, the Glencoe Golf Course floodplain designation, and the location of the wells were considered when confirming the groundwater classification.
- The treatment facility was reportedly developed at a cost of approximately \$750,000, despite information indicating that a substantially more comprehensive system, estimated at approximately \$4 million, had been recommended. Residents require clarification regarding

what treatment was originally recommended, what was ultimately installed, and whether the present system is capable of addressing all foreseeable risks.

- Residents have requested information about pesticides, herbicides, fertilizers, nitrates, metals, bacteria, total dissolved solids, and other indicators that could help identify floodwater or golf-course runoff. The limited testing completed to date does not fully answer these concerns.
- There is also concern that testing only selected parameters, or testing only treated water, may provide an incomplete picture of the actual condition of the source water.

We respectfully request your assistance in obtaining:

1. Comprehensive raw-water testing from each operating well, using independently collected and properly documented samples.
2. A current hydrogeological assessment addressing the floodplain, the 2013 flood, potential surface-water influence, and the proximity of golf-course chemical use.
3. The evidence supporting AEPA's position that the wells are not located within a floodplain, despite their location on Glencoe Golf Course lands identified as floodplain.
4. The evidence supporting the continued High Quality Groundwater designation.
5. Documentation identifying the exact collection location, source well, treatment status, date, time, and chain of custody for historical chemical and bacteriological samples.
6. An independent review of whether the current treatment and monitoring requirements adequately protect residents from flood-related, bacterial, chemical, golf-course, and surface-water risks.

Residents have spent many weeks attempting to obtain clear answers. Those answers have not been forthcoming, yet the new Point of Diversion authorization was approved.

If this groundwater is determined to be under the influence of surface water, the implications for treatment, monitoring, and public-health protection would be significant and could require immediate corrective action by Elbow River Estates Cooperative Ltd.

Your assistance is critical to protecting the people who rely on this water every day and to rebuilding confidence in the regulatory process. We are not asking AEPA to assume that

contamination has occurred. We are asking for the testing, documentation, floodplain evidence, and independent scientific assessment necessary to demonstrate that it has not.

Yours truly,

Romy Tittel (Former Leader of the Green Part of Alberta)

Appendix

Licence DAUT0016030

<https://geospatial.alberta.ca/erv-water-act/>

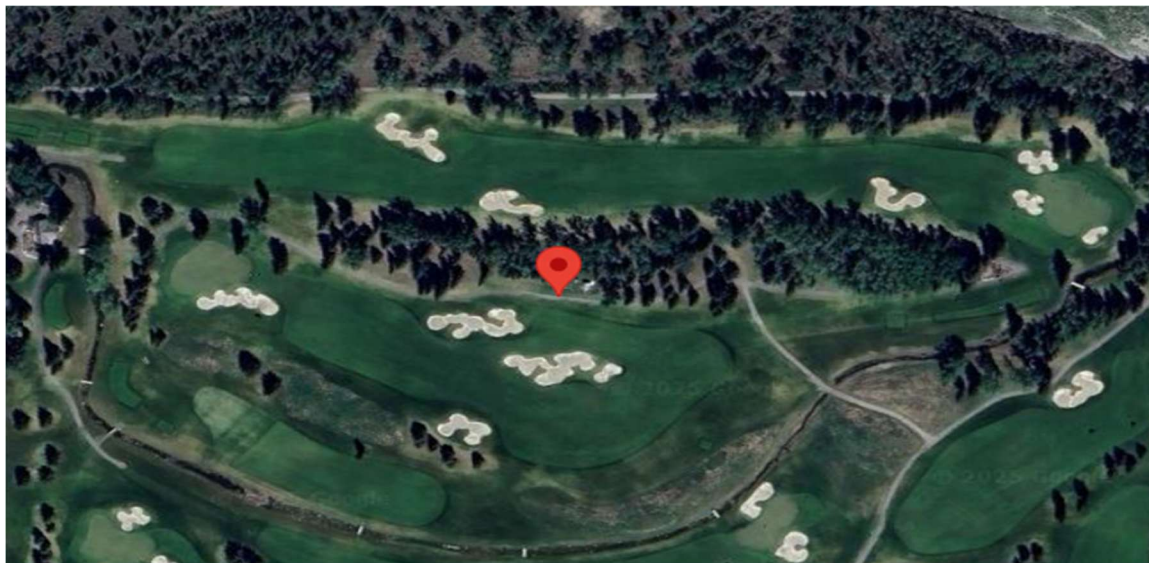
Well #4

<https://geospatial.alberta.ca/services/DRASDocuments/Document/Get?documentType=WL&authorizationNumber=DAUT0016030&id=75871931>

Well #3

<https://geospatial.alberta.ca/services/DRASDocuments/Document/Get?documentType=WL&authorizationNumber=DAUT0016030&id=75872305>

Well Locations pinned on Google Maps



Elbow River Alluvial Aquifer Map



<https://experience.arcgis.com/experience/6f36edb6d53241f9a85f653f0db1c3a8/page/Groundwater>

The Alluvial Aquifer

In the Elbow River watershed, the alluvial aquifer is the bed of river-deposited sand and gravel that lies adjacent to, and typically is hydraulically connected with, the Elbow River. Because of this connection, water is continually exchanged between the aquifer and the river, resulting in water quality that is very similar.

The Elbow River alluvial aquifer is a shallow, unconfined (water table exposed to the atmosphere) sand and gravel aquifer. The surface of the mapped aquifer represents just over 5% of the 1,238 square kilometre watershed. This aquifer was formed by the deposition of sands and gravels by moving water and is generally very permeable and highly hydraulically connected to the Elbow River. The upper surface of the aquifer is the water table, while the underlying and adjacent surfaces lie on typically less permeable materials. The groundwater in the alluvial aquifer is significantly more connected to the Elbow River than groundwater in the adjacent uplands. The aquifer's high permeability means that water flows more readily through it. The adjacent uplands form the limits of the extent of the floodplain and are assumed to form the boundary of the alluvial aquifer.