

The Alluvial Aggregate Removal Industry - a Terminal Prognosis For Water Bodies

The Story of the Residents living in the Red Deer River/Medicine River Confluence- The Struggle Goes On

Caveat- Red Deer County did deny the 6M Holding Ltd. application but the Howell Excavating Ltd. application is still pending.

There are twelve families depending on 19 shallow water wells and living on the Red Deer River/Medicine River **alluvial aquifer and flood plain. There are many others outside the aquifer who do not know the connection of the aquifer to their ground water wells.** Our businesses, our homes and our lands and in fact our health and safety hinge on whether Red Deer County and Alberta Environment decide to protect the alluvial deposit (gravel fans) that hydraulically connect the seven meter higher Red Deer River to the Medicine River. It is from these water bearing gravels that the local wells receive their water supply and that the fertile river delta lands receive their additional percolated moisture. It is from these underground gravel fans connect the Red Deer River to the Medicine River's famed walleye spawning areas.

We residents live with the past impacts of 480 acres of aggregate pit removal, including restricted hydraulic flows to our wells and lands and the increased severity and severity of flooding, erosion and indeed Red Deer River stem migration through those historic pits. We residents objected to those historic pits, and have continued to object to applications for large pit removal of the described aquifer/flood plain in 1993, 1998, 2000, 2002, 2004. We land owners have spent over multiple thousands of our own money to prove to Red Deer County and Alberta Environment those scientific findings that they have known all along . In fact the price tag to defend ourselves from the recent 6M Holding application is over \$16,000 for limited use of 1 lawyer, 1 paid expert. Fortunately, our group had some amazing experts volunteer their help because they believe in the aquifer value and aquatic habitat, including the development of a site specific fishery at risk study.

In 2007 and in 2009 Alberta Energy and Alberta Infrastructure, in dealing with developments in this same aquifer and our registered concerns, elected the requirement that their respective developments stay out of the gravel aquifer because of the sensitivity.

Why doesn't Alberta Environment **deny** this application outright - a lesson learned and not to be repeated? ? **Exactly who is on first base for the environment ? Perhaps more concerning, what game are we playing?**

Currently there is a new application to include disturbing an additional 130 acres of alluvial deposit removal below the water table on the desk of Red Deer County and at our insistence before Alberta Environment. Land location is - SE 13-36-2-W5M (Howell's Excavating Ltd, Innisfail, AB. To add further to the folly in this aquifer and directly connected to those Red Deer River downstream users, the Howell application includes wash pit, asphalt plant and a 25 acre shallow end use pond. The activities will take place without monitoring or license renewal by Alberta Environment. Note- Historic water licenses for the gravel industry appear to have **no expiry date!**

It should be further highlighted that Alberta Environment has **exempted the sand and gravel industry from Water Act License for pit dewatering.** (note there are some caveats here as to interfering with existing water use but the responsibility is on the directly affected to prove that the interference is "not reasonable" and has actually happened in a way that AENV considers "significant" The begged question of who monitors the dewatering activities is answered that the gravel industry is self-regulated and lacks government oversight.

How can this happen? We are entering the new Land Use Framework, using the Water for Life Strategies, the Land Stewardship Act, and the new Cumulative Impact Threshold Assessments? The Provincial Water Act and the Environmental Protection Act have lots to say about protecting fresh water, don't they? The Municipal Government Act (Section 60) specifically gives municipalities direction, control and management of water bodies, including the air above and the ground

below, doesn't it? There should be some protection here for the watershed, downstream users, resident's water rights, resident's safety and health?

Well, that just is not so. It has not been the case historically (20+ years ago) , and does not seem to be the case now. Alberta Environment says the municipality has complete jurisdiction over land use decisions, and that their role is only an advisory role on a referral basis. The requirements on the EPEA are basically a registry and a guideline for self reporting. Apparently when an adverse effect is reported and proven (by those deemed directly affected) as "significant" then Alberta Environment will look at the complaints on a case by case basis, if there is staff and private property considerations are taken.

Generally municipalities lack needed qualified expertise and defer water decisions to Alberta Environment. If AE doesn't raise a flag, municipalities consider the applications to be okay. Recently, Red Deer County did deny the 6M Holding application. We are very, very grateful to our county for this decision.

Since the early 1980's Alberta Environment has warned against excavations along the Red Deer River in this specific area. Their concerns were and are related to the large pit scars and water bodies left behind, as well as river bank degradation by over-zealous operators. Alberta Environment warns that the Red Deer River, in floods or over time will "definitely" migrate overland through pit scar channels, natural overflow channels and "pirate" the lower reach of Medicine River. "When the flood has subsided, the Medicine Flats area (*our lands*) will look like a wasteland consisting of gravel channels, some timber debris, large gravel mounds and large holes where gravel pits used to exist... Since the Medicine Flats area is clearly a flood plain, any development will significantly affect the behavior of the river. The constant removal of gravel while economically and commercially viable, will lead in time to a channel forming through the gravel pit area"- reference, Sheldon Lowe .Eng , River Engineering Branch Alberta Environment to Peter Stevens , Water Administration Engineer Approvals , Central Region , Aug 21, 2002.

As the scenario sits, Red Deer County has an Environmentally Significant Areas Draft Recommendation from Golder and Associates that clearly states Sand and

Gravel removals from this aquifer cause negative impacts. The 2009 State of the Watershed Report(SOW) , done under the Red Deer River Watershed Planning and Advisory Committee (Water For Life Strategy Initiative), outlined the poor score given the Medicine River. Any project that removes or damages alluvial aquifers in the watershed can cause a significant impact on the health of the river. (RDRWA said)

To conclude, where two rivers converge (a confluence) is much, much more than two lines meeting on a map. The confluence is a place where underground and overland water moves, where groundwater is re-charged, where springs, seeps and wetland areas inter-connect in patterns and ways we have no current science to predict or understand. Alluvial aquifers and flood plains should be no go zones for aggregate removal

Recognizing we all have a part in industry and that we need the economics of industry to survive, the industry impact on a water body can be compared to our own body's survival.

If we cut ourselves, we bleed, we heal and we go onto better management practices (BMPs) **What if we can't heal! What if the part that heals is permanently removed! The prognosis is terminal.**

Taking away the function and capacity of the land in an alluvial aquifer and flood plain (surface water/groundwater connectors) is the same as removing for all time the capacity of the watershed to heal.

The prognosis is terminal! That is our fight. That is our story.

Sincerely,

Dale and Glenn Christian

SW Section 18- Township 36- Range 1- West of the 5th Meridian

Red Deer County

Field viewing welcome

