

Meadowland Water System- Potential nitrate resolutions

- Search for a **new water source** with lower nitrates. As a word of caution, it can be very costly to drill a new well or have an existing well modified with the risk that the water quality is not an improvement over the long term. While the Water User's Association may benefit by collecting additional source water samples to have more data to aid in the decision making process, several studies have been done over the years, in the Kalispell area, that reference elevated nitrates with a potential connection between the shallow and deep aquifers. The following reports have more detailed information on nitrates in the area:

US EPA Summary of the Groundwater System of the Flathead Lake Basin:

[http://montanatmdlflathead.pbworks.com/w/file/fetch/46871185/Groundwater%20Technical%20Memo%20Public%20Review%20Draft%20\(9-30-2011\).pdf](http://montanatmdlflathead.pbworks.com/w/file/fetch/46871185/Groundwater%20Technical%20Memo%20Public%20Review%20Draft%20(9-30-2011).pdf).

MBMG Ground Water Resources of the Flathead Lake Area: Flathead, Lake, Missoula and Sanders Counties, Montana. LaFave, Smith, Patton 2004: http://www.mbmgtmtech.edu/pdf/GWA_2.pdf.

This report describes that the shallow aquifer may be directly connected to the deep flow system in the Kalispell area.

The Lost Creek Fan Nitrate Investigation prepared by DEQ's Laura Alvey in 2006/2007 references elevated nitrates north of the Meadowlands subdivision:

<http://www.deq.mt.gov/statesuperfund/gwrem.mcp>

- **Treatment of existing sources.** Treatment can be a very costly endeavor, starting at a very minimum of \$50,000 for treatment units alone, not including construction, engineering, review fees, operation and maintenance, etc. Remember, once treatment is installed on a water supply, it is not a "sure deal" solution to a safe water supply as it takes extensive oversight to ensure it is operating and treating the water appropriately. This would take additional operator education, time and resources.
- **Connection to City of Kalispell water supply.** Per the Public Works director, connection to the city water supply would require annexation but would not require the subdivision to connect to wastewater treatment. The distribution system will likely need to be brought up to current standards prior to connection. As far as annexation goes, per Montana Codes Annotated 7.2.4501 and 4502, "a city may include as part of the city any platted or unplatted tract or parcel of land that is wholly surrounded by the city upon passing a resolution of intent, giving notice, and passing a resolution of annexation. Wholly surrounded land is annexed, if so resolved by the city or town council, whether or not a majority of the real property owners of the area to be annexed object. The question of annexing the wholly surrounded land is not subject to being voted on by the registered voters of the area to be annexed." In short, if the User's Association puts extensive resources into options to find a new source or treat the existing water supply, it is possible that the city could require annexation at any time because Meadowland is "wholly surrounded" by city.
- As always, proper **septic maintenance** and fertilizer use is valuable, though due to surrounding area information, it is likely not enough to resolve elevated nitrates in your area. Septic maintenance videos and tips can be found here: <http://water.epa.gov/infrastructure/septic/septicsmart.cfm>