

Gallatin Canyon Water Resources Meeting

Big Sky Headwaters Alliance

Notes

June 19, 2019

Big Sky Chamber of Commerce Conference Room

55 Lone Mountain Trail, Big Sky, MT

2:00-3:30

Notes: Karen Filipovich

Notes

Septic Maintenance Program, Lori Christenson, Gallatin City-County Health Department

Lori Christenson presented some information on septic systems and septic maintenance program options.

Septic Maintenance Program Basics:

- Maintaining rated treatment levels in septic systems is a major public health issue. Properly maintained systems offer public health benefits because it safeguards water supply and cleans up wastewater. It protects water quality in surface and groundwater.
- There are many types of management models. A septic maintenance program can take several forms. It can be reactive because of a crisis or proactive to prevent public health and water quality. It could be housed within a Health Department or a Water and Sewer District. The current septic maintenance program in Lewis and Clark county is housed within the Health Department.
- Geography could be flexible. It looks likely that a sub-area could be chosen within Gallatin County under the Health Department. Water and Sewer Districts boundaries are determined by voters.

Septic System Information:

- In Gallatin County, there are 15-16 thousand permitted septic systems. This number is approximate because pre-1966 systems are not permitted and others may not have documentation.
- There is a mid-high percentage of older systems. In a survey of system in the Matthew Bird area, 67% of septic tanks are over 30 years old. 30 years is the expected lifespan of a septic system. The percentage of old system in Gallatin Canyon is not known, but may be something to look at further.
- Tracking the exact number and types of septic system is more difficult because there are no building permits in Gallatin County. There are land use permits that require wastewater treatment, so most septic permits are tied to the land use permits.
- Some old stems may be too close to wells or surface water.
- There is no low-income loan program in Gallatin that could help people with maintenance or upgrades to failing systems though Christenson is looking into it.

- Septic permitting also has a bit of a gap because properties may be expanded (more bedrooms, more bathrooms), but a new septic permit or upgrade may not be filed.
- In the Matthew Bird study area (south of Bozeman), 87% of all septic systems had permits and 13% did not. The percentages for this in the canyon are thought to be similar, but more study would be needed to figure this out in more detail. This is a potential concern because the lifespan of a septic system is rated at 30 years. In the Matthew Bird area, human sourced *e. coli* and nutrients are the concern for Bozeman Creek.

Discussion:

- How does a septic maintenance program fit in with more centralized treatment? It can be a first step or a long-term solution in areas where it is not cost-effective to extend pipes. There was a concern voiced that septic maintenance is not an appropriate solution in areas where more dense development requires higher treatment levels than septic systems are capable of delivering.
- Options for implementing a septic maintenance program were discussed. Beth Norberg, Lewis and Clark Health Department, said that they covered the entire county under the Health Department wastewater treatment title. She thought a voter-created District could be a great way to implement a program.
- A Water and Sewer District is always voter approved and has a large range of potential activities it can undertake including establishing septic maintenance programs and build contracts. A District has significant powers, including the ability to dissolve if not needed. Since Districts have an elected board, they are responsive to the people within the District.
- Could Rural Improvement Districts (RIDs) include septic maintenance in the same way that plowing is included? Perhaps doing this could include a maintenance contract that help save on septic maintenance costs.
- Is enforcement a big piece of the picture with septic maintenance programs? Norberg said there is enforcement authority that included a civil penalty in the Lewis and Clark model, but they have found that focusing on fixing the programs is a primary function and are revamping parts of their program to separate permit and maintenance issues further. Capacity for enforcement is also a practical problem since staff are limited.
- How are biosolids disposed of in Lewis and Clark County? City of Helena takes most pumped products in its treatment plan. There is a private site and a sewage lagoon that is also used. Land application is not needed, though it is possible. This was raised as a potential issue in Gallatin County, since land application sites are limited.
- Beth Norberg said that writing an implementation plan was really helpful. It was also really important to have a lot of community input to make sure the program is built in a way that will work in the community.

What problems are we trying to solve?

- Address nutrient loading from growing development
- Water quality protection
- Part of a larger strategy to address wastewater treatment and water supply protection
- Proactively addressing nutrient and public health issues

- Help find old systems and fix as needed. Could be an option to help residents upgrade failing systems
- Save individual owners money by bundling maintenance services for a discount or offer a low-interest loan program
- Public health protection
- Protect property values

Next Steps:

- Implementation Plan: Engage the public and identify what is of interest. More information on options and costs is useful. It could also be a basis for applying for funds.
- Inventory: Figuring out what systems are failing and which and the number of systems that are old would be helpful.
- Need to ensure that septic maintenance is part of a holistic discussion of what will work in the canyon. It needs to be included in a discussion of centralized treatment and District discussion. Treatment levels of different treatment issues, drinking water quality, and cost is an issue
- Timing – making sure that solutions are implemented in line with community needs is important

Lower Basin Aquifer (Canyon) Groundwater Investigation Program Update, Montana Bureau of Mines and Geology, James Rose, Hydrogeologist and Ginette Abdo, Program Manager

The Lower Basin aquifer is located from the turnoff south in the area of the Gallatin River corridor. It is a shallow alluvial aquifer. The study will look at water quality, surface and groundwater connection, water availability and groundwater recharge. The Gallatin Local Water Quality District has tracked increases in nitrates in public wells in the canyon area.

In addition to characterizing important water quality and water quantity issues, a groundwater numeric model will be built and can simulate different scenarios.

There will be community kickoff meeting in the fall.

There is a need for more monitoring sites in wells. The GWIP program would like to find more wells in area of concern. If a resident has a well that is 60' deep or less, it could be a good candidate to add to the monitoring. Rose would appreciate access to wells as the specific areas are identified.

Gallatin Canyon Engineering Study Report Update, Kristin Gardner, Gallatin River Task Force

Requests to Resort Tax and Gallatin County were offered on behalf of Gallatin Canyon. Resort Tax has funded the engineering study. Gallatin County did not fund the request.

WGM Group and AE2S have chosen to work together for an engineering treatment study for the canyon. Mace Mangold (WGM) said that the 2008 study was an excellent foundation for thinking about wastewater options in the canyon. This newer study will look at water rights, rather than zoning as a

limiting factor for total effluent. It will add clustered treatment options and refine information about disposal options.

There was discussion that it would be helpful to build off anything that the Health Department has on septic system. Mapping the existing systems could be useful.

There was a question about water rights – is that the true cap on development? It isn't clear if physical or legal availability is the most limiting factor yet.

Outreach was also discussed. The engineers and the Task Force will work with partners and residents in the canyon to make sure that everyone has a chance to understand the study, District considerations, and options to safeguard water and property in the canyon.