

Scatter Creek Aquifer – Septic System Management Project

Purpose: To make sure water in the Scatter Creek Aquifer is safe to drink now and in the future.

Citizen's Committee notes: February 5, 2014, 6:15-8:15 pm *approved 3/5/14*
Rochester School District Board Room (*old primary school, enter from front*)
10140 Highway 12 SW, Rochester, WA 98579

Attending: Tom Budsberg, Roger Max, Maureen Pretell, Marlene Hampton, Sandra Adix, Lowell Deguise, Gene Weaver, Chanele Holbrook, Bruce Morgan, Dave Defoe, Art Starry (staff), Nadine Romero (staff). **Facilitator:** Jane Mountjoy-Venning (staff). **Note taker:** Kateri Wimsett (staff). **Excused:** Karen Deal, Amanda Neice – alternate. **Guests:** Larry Weaver. **Absent:** Scott Schimelfenig.

Introductions

Agenda review and approval: A change was made to the agenda to allow Larry Weaver to present a local real estate perspective about current land use.

Approve January notes: Approved with the note to correct the year on the dates to 2014.

Other housekeeping: Heather Saunders sent information about results from the free water testing offered to residents in the aquifer area. 25 households participated. The nitrate levels ranged from less than .5 mg/l to 4.2 mg/l. Four samples tested positive for coliform bacteria and one of those was positive for fecal coliform.

Upcoming calendar: The committee approved the upcoming schedule of meetings:

- **February 26 from 2:00-3:00 pm** staff will be briefing the Board of Health, updating them on the current status of the Scatter Creek project. Committee members and others are welcome to attend. It is not a public hearing. The briefing will be at the County Courthouse, 2000 Lakeridge Dr. SW, Building 1, room 280.
- **March:** modeling based on full build-out, Tenino sewage treatment plant operating at full capacity, and some input from fertilizer/manure.
- **April:** Guest speaker, Jeremy Davis, Thurston County Planner to talk more about how endangered species and critical areas might affect our assumptions in the number of septic systems able to be built at full build-out.
- **April: Community Workshop** to share modeling results, update the community on current status of the project and get input as we draft recommendations. The workshop will likely be scheduled toward the end of the month.
- **May – June or July:** Schedule two meetings a month. This is the time when we will be developing our draft recommendations for the Board of Health/Board of Commissioners.
- **September: Community Workshop** to share draft recommendations with the community and get feedback.
- **October:** Revise draft recommendations.
- **November or December:** Present recommendations to protect drinking water quality in the Scatter Creek Aquifer to the Board of Health/Board of Commissioners.

Model Scenario Results: Nadine Romero's latest work on the model involved comparing what the model predicted to the actual results of groundwater monitoring.

- The model predictions thus far are based on nitrates from septic systems and a level of 2 mg/l nitrate entering the study area from Tenino and upgradient.
- Nadine shared a graph that showed the nitrate levels in the aquifer from the 2012 October monitoring, the 2013 October monitoring and the model predictions.
- Nitrate levels consistently were higher in 2013 than in 2012. As discussed in the December meeting, monitoring followed a heavy rainstorm in September. Water levels in the aquifer were high in Oct. 2013.
 - Nadine stated that the September storm ranked number 17 for precipitation out of 18,000 daily events recorded in the NOAA weather records for precipitation at the Olympia airport.
 - Water flows in the last 7 years have been 5-8 feet higher than lower water years. Lowell noted that water level variation in the aquifer over a several year cycle is a normal variation.
 - A key point is that water in the aquifer can surge after heavy rains. The US Geologic Survey (USGS) has a real-time groundwater level hydrograph in the Scatter Creek aquifer. It shows how quickly the groundwater level responds to rain. The link is: <http://wa.water.usgs.gov/data/gw/rtime.htm>
 - The rain can carry contaminants from the surface of the ground, or in the soil down into the aquifer. As reported in the December meeting, we also saw an increase in the presence of coliform bacteria in the aquifer in October 2013. At this time, we are monitoring the aquifer two times a year and may miss spikes in contaminant levels.
- When comparing the model predictions with the real data, the model more often under predicted the nitrate levels both in frequency and in the level of difference. There are some areas where the model slightly over predicted nitrate levels, most notably at the eastern edge of the study area, where water enters from Tenino.
- Nadine and the committee discussed reasons for the differences.
 - The model has not accounted for nitrate contribution from fertilizer and manure. There was some discussion about the most accurate means to account for this contribution. While there are pockets of highly fertilized lawns, we do not want to assume that lawn fertilizers are used at the same rate in this aquifer area as is used in affluent suburban areas. We will double-check studies to develop the most realistic estimates. Nadine will present modeling results with an estimate of nitrate contribution from fertilizer in March.
 - Water entering the aquifer study area from the east (Tenino) is coming in with nitrate levels closer to 1.7 or 1.8 mg/l. Nadine will correct the model and then run the model assuming the Tenino wastewater treatment plant running at its full permitted capacity.
 - The committee was able to provide some insight to Nadine about land use in certain areas such as livestock being removed from some pastures, and wetland areas with large amounts of waterfowl and beaver.

Larry Weaver presentation: Larry shared about impacts on current real estate transactions due to set backs required for habitat and other protection. He showed us several parcel maps with the setback areas highlighted and stated that from his informal examination, an average of about 42% of land in a parcel was set aside for habitat preservation, affecting where a home and outbuildings could be built.

Committee members shared a variety of concerns:

- The impact of regulations on individual property rights.
- The health of the aquifer and the drinking water as property is developed.
- A number of residents, especially farmers, have their land as their retirement account. They counted on being able to subdivide and sell a portion of their land and live on the proceeds when they are unable to farm any longer.
- Humans have the ability to “screw-up” land and also have a responsibility to protect it.
- We want to use the most accurate data as possible to predict “full build-out.” If the predicted number of septic systems built is likely to be substantially less due to changes that may occur because of critical areas and endangered species protection, we want to consider those when making recommendations.
- Art will double check with planning to see how they accounted for the critical areas ordinance when estimating the number of lots at full build-out. The important factor for determining the impact on drinking water is whether a septic system can be built.

Recommendations exercise: This was set aside for the next meeting.

Public Comment: none

Wrap up

- Review any tasks/commitments & timeframe
- Review notes, capture any missing points