

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: March 5, 2014, 6:15-8:15 pm *approved 4/2/14*
Rochester School District Board Room (*old primary school, enter from front*)
10140 Highway 12 SW, Rochester, WA 98579

Attending: Sandra Adix, Chanele Holbrook, Tom Budsberg, Amanda Neice, Marlene Hampton, Roger Max, Lowell Deguise, Gene Weaver, Bruce Morgan, Art Starry (staff), Nadine Romero (staff). **Facilitator:** Jane Mountjoy-Venning (staff). **Note taker:** Kateri Wimsett (staff). **Excused:** Maureen Pretell, Karen Deal, Dave Defoe. **Guests:** none. **Absent:** Scott Schimelfenig.

Introductions

Agenda review and approval: Approved

Approve February notes: Approved

Community feedback: People are in a "wait and see" mode.

Other housekeeping:

- Community Workshop set for Wed, April 23, 2014 from 6:30-8:30 at Rochester Middle School.
- April 2, 2014 Citizens Committee meeting will be at the Violet Prairie Grange, 6:15-8:15 pm.

Update from Board of Health briefing: Board of Health members Cathy Wolfe and Karen Valenzuela were present at the Feb. 26. 2014 briefing, as was Cliff Moore, County Manager, and several staff members. Citizens Committee members Tom Budsberg and Gene Weaver were able to attend. Art and Jane gave an overview of project activities thus far and sought guidance on a proposed 2nd community workshop. Copies of the powerpoint presentation and briefing packet were available at the March citizens committee meeting and are on the website.

Cathy Wolfe had a question about nitrate levels – it was clarified that even though there was an increase in nitrate levels during the October 2013 water quality monitoring, the overall trend is a reduction in nitrate levels since 2008. The county manager asked if water quantity issues had been looked at. Nadine mentioned that while modeling there she had some issues with water quantity, though the current project is not designed to look for and substantiate that. The model could be used in a future project to examine questions about water quantity. Gene spoke up that currently the aquifer is seeing high levels of water and volume does not seem to be an issue.

Discussion followed. Some committee members felt that the project overview included in the briefing packet was very descriptive, except for number 2 - the statement about past activities polluting the aquifer. This was felt to be misleading and even propaganda as the whole aquifer has never been polluted. Art explained that the statement was referring to the past when we did see some wells with nitrate levels of 17 mg/l, which is a violation of drinking water standards and therefore considered pollution. A suggested alternative: "... in the past septic systems and land use activities resulted in areas of the aquifer experiencing violations of drinking water standards..."

Discussion shifted to the upcoming Community Workshop in April. Jane stated that she would likely use many of the same slides from the briefing to update the community on the status of the project. She felt that there was a need to “put people back in the picture,” and wondered if committee members thought it would be a good idea to use photos of willing people from the area when talking about the impacts to people. The committee was asked what they felt would be important to include in the Community Workshop. Answers:

- Importance of and how-to tips for wellhead management and placement.
- Modeling results – share the same maps as used in the Board of Health briefing.
- Clear description of the assumptions used in the modeling, especially around developable land.
- Share the positive outcomes as well as any problems; the 1984 aquifer report was pointed out as a good example.
- Share a history of the aquifer, past studies, and past changes enacted to protect the aquifer.
- Could we survey people about their fertilizer use and how often they pump their septic system so we can use as accurate information as possible?
- Prior to the workshop, we should clarify ground rules for answering questions from the public. It was noted that all questions from the last community meeting will be answered in writing and posted on the website, Jane is terribly behind in doing so.

Model Scenario #4 Results: Nadine Romero shared results from the model scenario looking at nitrate loading from lawn fertilizer. The assumption used was that 4 pounds of nitrogen per 1,000 square feet of lawn are applied per year. This is based on WSU recommendations and is very likely a worse-case scenario as far as fertilizer use goes. This lawn fertilizer nitrate contribution was added to scenario 2, which assumes all current legal lots are built and a 2 mg/l contribution from Tenino. The highest nitrate levels in the model continue to be in the northwest corner of the study area. Points raised in the discussion:

- We still see some actual nitrate levels coming in higher than the predicted levels in the model. A potential reason is relic contamination from past land use that is still flushing through the aquifer.
- When Nadine writes the final report about the modeling it will include a discussion of data gaps such as the fact that the monitoring wells are 80 to 100 feet deep and there are very few wells deeper than 150 feet. Overall, the model is fairly close to the reality we see from groundwater monitoring. The model is checked several ways:
 - Look at the differentials between the modeling and current data. The differentials for this model are very small, most less than 0.5. The largest differential in one well is 1.010.
 - Look at the volumes of water predicted by the model compared to data from monitoring. The model predicts 59 cubic feet per second (cfs) of water entering the Chehalis River from the aquifer, the United States Geologic Survey (USGS) measures 58 cfs. The model is working accurately.
- Currently the model assumes a 2 mg/l contribution of nitrate entering the model from the east, i.e. from Tenino. The level from groundwater monitoring data is closer to 1.7 mg/l. The nitrate contribution from septic systems is 60 mg/l.
- In 2013 the volume of class A water discharged by the Tenino Wastewater Treatment Plant was 32,547,000 gallons per year. Tenino is permitted to discharge more.
- Committee members had concerns that Tenino may be able to accept sewage from outside

the boundaries of the city and the aquifer area. This could mean adding nitrate and other contaminants that were not already present in the aquifer, rather than better treating contaminants already present.

- Art will follow-up with Department of Ecology, the permitting agency, to answer questions about the permit. Nadine will continue to work with the model to most accurately reflect current and future impacts from the Tenino Wastewater Treatment Plant.

Recommendations exercise: Committee members were asked to imagine they were giving advice about the drinking water to a pregnant daughter or an immune-compromised friend undergoing chemotherapy. Advice could include actions they would recommend that the daughter or friend take, as well as actions “they” or “someone” ought to take. The following is the complete brainstormed list, and is not agreed-upon committee recommendations.

- Prior to major rainstorms, especially the first big rain, one family stores a supply of water ahead of time to use for about 30 days following the heavy rain. This is in part because they have noticed water in the well changes color after major rainstorms.
- Work that has already been done is adequate. You don’t need to do anything special; we’ve already taken care of you.
- No qualms about drinking this water. People rave about our water.
- Keep an eye on nitrate levels. If you are on a well, keep up with monitoring it.
- Get a high quality water filter. There are many unknowns. We are getting other stuff (*beyond nitrates and bacteria*) in the water.
- Let’s use this data we have now.
- If nitrate levels are bumping 4.0 you should test the water quarterly.
- We can’t ignore hot spot areas.
- There should be education for the public about proper well maintenance and protection, especially in the Scatter Creek area. It should happen on a regular basis.
- Public education is a great need, both about wellhead protection and about septic systems.
- Find out about your own water supply. You can’t rely on general information about the aquifer. Sample your well, look at the results, and then make decisions.
- Mailings to residents have an advantage that it puts the information right into your hands. Maybe develop partnerships with Puget Sound Energy, LeMay, or other mail that already comes to people’s homes.
- Money was well spent to get the data. Good to compare to historical information.
- This kind of study is important to do on a regular basis.
- Important to make educational pieces fun or attention getting so the information is read. Want folks to take actions to protect the aquifer.
- In any future cluster developments, let’s keep the wells away from all the septs. If current developments are having problems, perhaps the wells could be moved into the set-aside area or up-gradient of the septic systems.
- In hot spot areas such as the northwest corner, perhaps they could be hooked up to Rochester Water System.
- Work with dairies and other businesses to keep them here and keep the water clean.

Public Comment: Gene Weaver shared the letter he sent to the Board of Health following the Feb. 26, 2014 project briefing. It shared many of the concerns discussed earlier in the update of the Board of Health briefing. (*Due to another obligation, Gene missed that discussion.*) A copy is

posted to the project website.

Wrap up

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