

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

Attendees:

Sounding Board Members and Alternates	Organization
Joe Skewis	Pro to tron Circuits
Eric Ferguson	King County DNRP
Tom Markl	Nelson Legacy Group
Mike Johnson	Neighborhood representative
Clarke Jewell	Olympian Precast
Ken Nabors	Mac & Jack Brewery
Danielle Shaw	Washington Environmental Council

Others in attendance:

- Amanda Balzer, City of Redmond, Project Manager
- Becky Range, City of Redmond, Communications
- Andy Rheaume, City of Redmond, Senior Watershed Planner
- Gary Schimek, City of Redmond, Engineering Manager
- Sarah Brandt, EnviroIssues, Facilitator
- Liz Mack, EnviroIssues, Facilitation Support

Summary:

Welcome, introductions, and overview

Sarah Brandt welcomed the Sounding Board members and thanked them for their participation. The members introduced themselves. Then, Sarah reviewed the meeting agenda.

Gary provided updates about the recent Council briefing, other processes related to the groundwater modeling, and how this effort aligns with the Mayor’s vision and the City’s Comprehensive Plan.

- **City Council meeting, September 26, 2017:** The stakeholder process was reviewed with Council at the September 26, 2017 Study Session and the information shared with the Sounding Board today was shared with the directors of public works and planning. The Council was most interested in the maps of temporary groundwater dewatering, which were discussed with the Sounding Board last month. Council and others feel like everything’s been in alignment with what was expected as the Sounding Board has moved through this process.
- **Comprehensive plan alignment:** The City is working to finalize summaries to share at the next Sounding Board meeting. They will help describe the Comprehensive Plan and distill the key focus areas for the City moving forward. A key point is that the City plans to concentrate new development in urban spaces to protect greenspaces and single-family neighborhoods. Another

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

key focus is to promote new buildings that are models of sustainable design. We are working to ensure that infrastructure and services are well-matched with needs, including water supply.

- **Low Impact Development Business Case:** The stakeholder group recommended following Ecology’s regulations for roof run-off and infiltrating water on site.
- **Temporary Construction Dewatering:** Next, the City will look at different dewatering scenarios related to constructing features like underground parking and basements, and how they impact water supply. The City plans to convene another stakeholder group to inform this process. Because most data analysis has been done, the City will not be starting from scratch. It’s likely this group would begin its work next year.

Emerging process recommendations

Sarah pointed out two updated items for the Sounding Board: the guiding principles and the regulations and policies matrix. The guiding principles have been updated to include alignment with the Mayor’s vision and the City’s Comprehensive Plan. The matrix contains updated information on the water costs and growth plans. Amanda is still working with staff to get a more specific cost for purchasing water from the Cascade Water Alliance (CWA). Generally, she anticipates about \$42 to 55 million in connection fees to CWA and about \$2.5 to 4 million annually to purchase water. The additional costs to purchase water from CWA would be paid for through a utility rate increase. However, the City still needs to clarify if connection fees would be covered through a utility rate increase.

Wellhead protection zone buffers

Amanda explained, that she would like to move forward with policy buffers of about 3.5 – 4 (on a scale of 1 = more reactive to 5 = most proactive), based on previous group discussions. This will help the Sounding Board narrow the focus and discuss any “pain points” that arise from the new model outputs and proposed buffers.

Temporary construction dewatering

Option 1

Amanda presented “Option 1” for a proposed temporary construction dewatering buffer, which is the level 4 model output discussed at the last meeting. This option models the changes to groundwater flow from past dewatering projects. The areas in Option 1 would represent the new WHP Zone 2. In this zone, activities such as landfills, transfer stations, chemical manufacturing, and mobile fleet fueling operations (excluding construction sites) would be prohibited. In addition, there would be higher thresholds for business inspections and best management practices (BMPs). Businesses in this zone are also prohibited from infiltrating on pollution-generating surfaces.

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

Discussion:

- Joe asked if this change would increase the inspection rate for businesses in the zone.
 - Amanda clarified that inspection rates would stay the same within the zone. The inspection rate is based on risk and only the land area requiring inspections would change (would become smaller).
- Tom asked if there were any existing businesses that are currently grandfathered and would become non-compliant.
 - Amanda explained that the proposed area is smaller so there would be no new impacts to existing businesses.
- Tom asked if this zone would preclude water gardens and pervious pavement.
 - Andy noted that the City does not allow pervious pavements on pollution generating surfaces (i.e. parking lots). Rain gardens are allowed if they are lined or on residential property.
- Joe asked if there are known contaminated sites that concern the City in this area.
 - Amanda explained that the City knows the locations of the contaminated sites; if dewatering is going pull those contaminants towards the drinking wells, the project must mitigate for this. However, there is a risk of unknown contaminated sites.
- Tom asked if soils could filter out contamination in these areas.
 - Amanda noted that soils can filter some contaminants, but the groundwater is very shallow (10 to 15 feet below ground surface) in the area. The model accounted for soil types when calculating groundwater flow.
 - Andy added that the soils in the area don't do much to treat contamination due to organic matter and cation exchange.
- Gary noted that this output is a precautionary risk level.
 - Amanda stated that the City wants some predictability and doesn't want to change zones again in a few years.

Option 2

Amanda presented "Option 2" for the dewatering buffer. After the last meeting, the City had internal discussions about the need to include a few additional areas. Dewatering projects typically dewater for 6 to 9 months. Staff modeled hypothetical projects that could have the biggest impacts on change in direction of groundwater flow. These projects included two stories of dewatering near Wells 1, 2, and 5 at a pumping rate consistent with other projects in the area (about 3,000 gallons per minute). They used

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

the model outputs to determine a distance that could impact each well and applied this distance around the wells (Well 4 – 1,800-foot radius, Well 1 & 2 – 3,400-foot radius, Well 5 – 2,400-foot radius). The areas where topography prohibits groundwater flow, due to a change in geologic material, were excluded.

The risk of Option 1 is not fully protecting the source area, as dewatering could bring water to the wells that is not part of the protection zone. Option 2 has some financial impacts that should be considered.

- Option 2 affects 77 new parcels; 75 of these are currently in WHP Zone 3 and have some requirements. Out of these sites, some have had previous inspections done.
- The City estimates about:
 - 10 percent of the parcels could have a financial impact of up to \$5,000
 - 30 percent could be up to \$1,000
 - One percent of sites could have an impact up to \$30,000

If Option 2 is pursued, the City will work with King County to get vouchers that can offset some of the costs. In the past, the City gave businesses 5 years to come into compliance with new requirements and would likely do the same for these changes.

Discussion:

- Joe asked if light rail will be added to this area.
 - Amanda explained that light rail will be added in this zone east of Marymoor Park and the area will likely redevelop in the near future.
- Clarke asked if there are construction requirements with the BMPs and noted that the cost associated with these are often very high.
 - Amanda clarified that the one percent would need to construct cover and containment for hazardous materials.
 - Clarke noted that cost will be much higher (up to \$500,000) because of the design and construction fees.
 - Amanda added that they will need to assess some sites that have stormwater infiltration to determine their risk level. This could be a large expense, but it's hard to know without performing an assessment. Previously, Group 1 was getting 75 percent reimbursement on the construction cost.
- Tom noted that the future development around the light rail is likely to be office and residential use. The constraints around infiltration are largely “type of use,” so this wouldn't have adverse impacts on growth. His concern is the economic impacts to existing businesses. Others echoed concern about these impacts.

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

- Mike noted that Option 2 is based on speculation and it will be important to clearly communicate the reasoning to the newly impacted parcels. It's easier to communicate Option 1 (data-driven) than the speculative zone.
 - Amanda explained that the City started looking at dewatering projects in 2011 and since then, there has only been a six-month window where there wasn't dewatering. It doesn't seem like dewatering will slow down anytime soon. The sites chosen for Option 2 are based on the types of development currently happening that will be reasonable to expect in the future.
 - Danielle added that it's important to consider predictability and longevity of the WHP zones. The messaging could focus on the City using good information to smartly plan for the long term.

- Tom stated that the City needs to think about a future Manufacturing Park (MP) area. The allowed uses or zone designations should be evaluated so the uses in those zones are consistent with the WHP zones. This could help provide clarity for perspective developers.
 - Andy asked if there are any businesses operating right now that would be caused to shut down or would become a prohibited use.
 - Amanda said it doesn't appear so, but there may be one business using mobile fleet fueling. This business would need a different way to fuel vehicles or the City would need to amend the code.
 - Andy added that the City will take a close look at each parcel if the Sounding Board wants to consider Option 2.

Amanda asked the group to share their initial preference for the two options.

Option	Description	Sounding Board Initial Preference
1	The level 4 model output discussed at the last meeting	One member
2	Option 1 with additional buffering around several of the wells to account for changes to groundwater flow from hypothetical projects	Four members
Other	A middle ground between the two options, perhaps Option 1 with added buffering to Well 5 to the south	Two members

The following comments were shared to support the preferences listed above:

- Danielle noted that the City needs to account for the risk to public health if it pursues a less precautionary option. This has costs, just as businesses might experience costs to comply with new WHP zone requirements.

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

- Ken expressed concern about the increased cost for future businesses and noted that it will be important to protect the groundwater near the new light rail development.
- Clarke would like a better sense of how existing businesses will be impacted.
- Joe thought it would be helpful to have clear lines of demarcation (Sammamish River, etc.) and would like to know how the topography of Southeast Redmond interacts with the groundwater flow.
- Tom noted that the City should compensate businesses who must pay to comply with new WHP zoning requirements, since protecting the water is a public benefit.
- Andy noted that the City will want to notify any new parcels before the changes become code, so they can be part of the process.
- Gary noted that one recommendation could be to conduct a second round of stakeholder outreach to get feedback from the 77 parcels.

Critical Aquifer Recharge Area (CARA)

Amanda presented the guidelines outlined by Ecology to determine the CARA. Redmond used these guidelines and the model to determine the CARA zone for the land within the city limits. This new zone incorporates 300 parcels that were not previously included; most are residential, but 125 of these parcels are not residential uses.

In the CARA, there are some BMP requirements, and fueling and auto repair needs to be covered and contained, as do hazardous materials loading zones. Overall, the zone (not each site) needs to maintain recharge to the aquifer. The City's recent LID Policy decision will lead to more recharge (the LID Policy sets a higher bar for recharge than the CARA).

Discussion:

- Joe asked if this proposed area aligns with King County.
 - Eric explained that it's closer but not exact.
- Tom asked about the cost of new BMPs for existing businesses.
 - Andy noted that the City did not compensate the businesses in the current CARA when they had to become compliant with CARA BMPs.
 - Amanda did not expect this to be a big expense and said it would be similar to the 2008 upgrades. Most businesses will be able to meet requirements for ~\$1,000. The City will review each newly impacted parcel and confirm the anticipated impacts.
- Ken suggested that the City phase in new requirements as opposed to requiring all the changes at once.
 - Tom recommended an incentive program to encourage early adoption.

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

- Joe noted that this change would mostly impact light industrial areas near Marymoor Park and suggested getting their input.
- Mike noted that it's a higher impact to come into compliance with WHP Zone 2 than with CARA and asked if the parcels being discussed are only added to CARA or to CARA and Zone 2
 - Amanda clarified that the 77 parcels that would be added to Zone 2 (with Option 2) are already in Zone 3, which is the same as CARA. There are only approximately 50 parcels that are new to CARA and most have already had to go into compliance with similar stormwater regulations.
- Eric noted that choosing Option 1 (for WHP Zone 2) and increasing the CARA would protect recharge, but shrink WHP zones. He asked what tradeoffs would occur if the City changed CARA to align with WHP Zone 2.
 - Amanda noted that currently WHP Zone 3 and CARA are the same. If you aligned CARA with Zone 2, you would have pockets of parcels with stormwater entering the aquifer that are not actively inspected. This option is significantly less protective.
- Joe asked if there was a problem making the entire city limits Zone 3.
 - Amanda noted that this would apply the BMPs city wide.
 - Andy clarified that the stormwater permit that will go into effect in 2019 will be applied city-wide, and source control business inspections will occur city-wide.

Amanda summarized the key themes heard so far:

- Need to balance supporting newly impacted businesses with equity to previously impacted businesses.
- Need to create alignment with land use codes.
- Need to provide assistance (both resources and time) to existing businesses facing new requirements.
- Need data to support these decisions, where possible.

Amanda explained that the City will take this information and put together a draft proposal to discuss at the next meeting, which will document any lingering concerns. She reminded the group that this is not a consensus process. The key points from the Sounding Board will be presented to the Planning Commission. Any proposed zoning code changes will have a public comment phase. The City will also reach out to businesses that will be impacted and help with that adjustment.

Outreach update

Sarah presented a brief update on project outreach. The City had a table at the So Bazar event and staff had good discussions with residents about wellhead protection. There was a lot of interest in the

Wellhead Protection Zone Sounding Board

Meeting #4 Summary



Time: Wednesday, October 11, 2017 (1:00 p.m. – 4:00 p.m.)
Location: Redmond City Hall, Council Conference Room
15670 NE 85th Street, Redmond, WA 98073

construction happening downtown and how that related to the wellheads. Many residents didn't realize that the City provides drinking water that comes directly from Redmond's aquifer. There were not many comments on this process specifically.

Liz gave a quick recap of the online open house. To date the site has been visited 53 times by 32 different users.

Wrap up and next steps

The fifth meeting will be scheduled for November. Amanda will also send an update about the timing of the council and Planning Commission meetings that occur after the Sounding Board process.

The following action items and questions were also captured for further discussion:

- Share information on the Mayor's vision and Comprehensive Plan summary when they become available
- Confirm the specific costs associated with purchasing water from CWA
- Provide details on the 77 parcels that would be impacted by Option 2 (WHP Zone 2)
- Clarify how the topography in Southeast Redmond relates to Option 2
- Begin outreach to light industrial areas in Southeast Redmond and other potentially affected parcels