

# Wellhead Protection Zone Delineation



## Sounding Board Process Summary

### Sounding Board at a Glance

The City of Redmond (Redmond) is evaluating how to re-delineate Wellhead Protection Zones for the Redmond Alluvial Aquifer. Redmond is using a newly developed groundwater model to help evaluate potential delineations and various risks using best available science. In addition to new technical information, several other factors should be considered before establishing new Wellhead Protection Zones.

To support good decision-making and communication with affected stakeholders, Redmond convened a Sounding Board of diverse community representatives. Sounding Board objectives were to:

- Share feedback, perspectives, and recommendations related to re-delineation options, policies, and regulations.
- Serve as liaisons to other interested parties who may wish to provide feedback or stay informed, and provide suggestions about how to best engage stakeholders in the process.
- Create a transparent process that identifies all issues early in the process and avoids surprises at the end.

In early 2017, Redmond convened two focus groups to assess current opinions about wellhead protection. Following the focus groups, the project team identified the perspectives most important to a successful Sounding Board and recruited the following members:

Interest	Representative	Alternate
Commercial business	Ken Nabors, Mac & Jack's Brewery Joe Skewis, Prototron	Tom Schmidlin, Post Doc Brewery
Industrial business	Clarke Jewell, Olympian Precast	
Business association	Tom Markl, OneRedmond	Bart Phillips, OneRedmond
Neighborhood / residential	Mike Johnson, Gray & Osborne	
Regional non-governmental organizations	Danielle Shaw, Washington Environmental Council	Katelyn Kinn, Connie Sullivan, and Sophia Ressler, Puget Soundkeeper Alliance
King County Groundwater Protection Program	Eric Ferguson, Technical groundwater staff	
Development	Robert Pantley, Natural and Built Environments*	

\* Only able to participate in one meeting.

## Sounding Board Results and Recommendations

---

The Sounding Board met five times between April and December 2017, and successfully:

- **Recommended a cautiously proactive level of risk to calibrate the groundwater model and guide other recommendations.** The Sounding Board consistently recommended (on average) that the City pursue a cautiously proactive level of protection, a “Level 4” on the following scale.

Rating / Level	Level of Protection
5	Most protective / proactive
4	Cautiously proactive
3	Balance proactive / reaction
2	More reactive than proactive
1	Most reactive

The project team calibrated the groundwater model at this level, and generally recommended that other technical and policy decisions in this process remain consistent with this level of protection.

- **Recommended revised Wellhead Protection Zones.** The Sounding Board informed the project team’s development of revised Wellhead Protection Zones, including associated buffers, and supports the City staff’s final package of recommendations with the caveat that the City should look at ways to minimize the financial impact to businesses being added to a new zone. The key driver for this process is the City’s interest in protecting groundwater – a public benefit. The City should be sensitive to sharing the financial burden between impacted businesses and the larger public that will benefit.

***Please note:*** *Temporary Construction Dewatering economic feasibility will be further evaluated in 2018, which will inform any future policy changes to dewatering, development, and Wellhead Protection.*

- **Developed guiding principles.** The group developed guiding principles to articulate key factors to be considered when evaluating options and recommendations. These guiding principles provide additional context as the Planning Commission and City Council review these recommendations, and can be used when considering related policies and decisions.
- **Informed and participated in broader community outreach related to the process.** To broaden the conversation, the Sounding Board:
  - a. Recommended outreach methods to share information about this process with others.
  - b. Were invited to share an on-line overview tool with their colleagues, which included meeting materials, Sounding Board contacts, and the opportunity to provide comments.

- c. Participated in special events highlighting Redmond’s drinking water (e.g., Postdoc Brewery’s Hydrogeological Session IPA shared at Redmond’s So Bazaar event in August 2017).

The table below lists key topics and outcomes by Sounding Board meeting. Please note that general outreach updates were also provided at each meeting.

Meeting Date	Meeting Topics	Meeting Outcomes
4/26/2017	<ul style="list-style-type: none"> <li>• Process overview</li> <li>• Groundwater model and calibration overview</li> <li>• Preview of related policy changes being considered</li> <li>• Outreach discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Initial feedback about risk tolerance preference for groundwater model</li> <li>• Outreach ideas to inform others about the process and invite feedback</li> </ul>
6/6/2017	<ul style="list-style-type: none"> <li>• Information requests</li> <li>• Guiding principles</li> <li>• Groundwater model risk tolerance</li> <li>• Policy “buffer” preview</li> </ul>	<ul style="list-style-type: none"> <li>• Identified assumptions matching preferred level of risk (cautiously proactive) for final model runs. Model “dials” included pumping rates, effective porosity, and climate change.</li> </ul>
8/9/2017	<ul style="list-style-type: none"> <li>• Information requests</li> <li>• Guiding principles</li> <li>• “Related policies” matrix</li> <li>• Model results</li> <li>• Policy dials and buffers</li> </ul>	<ul style="list-style-type: none"> <li>• Supported final model calibration at Level 4 (cautiously proactive) risk tolerance</li> <li>• Provided initial feedback about policy-related buffers:               <ul style="list-style-type: none"> <li>- Temporary Construction Dewatering</li> <li>- Stormwater / surface water conveyance</li> <li>- Impervious surfaces/buildout</li> </ul> </li> </ul>
10/11/2017	<ul style="list-style-type: none"> <li>• Emerging process recommendations</li> <li>• Policy buffer options based on previous feedback and risk tolerance level of 3.5 to 4</li> </ul>	<ul style="list-style-type: none"> <li>• Expressed general preference for Temporary Construction Dewatering buffer that expanded “Level 4” model output to account for some potential future project modeling scenarios</li> <li>• Provided feedback about Critical Aquifer Recharge Area (CARA) designation</li> </ul>
12/13/2017	<ul style="list-style-type: none"> <li>• Final City-recommended Wellhead Protection Zones and summary memo</li> <li>• Process feedback and next steps</li> </ul>	<ul style="list-style-type: none"> <li>• Supported the City’s recommended boundary changes</li> <li>• Provided feedback about:               <ul style="list-style-type: none"> <li>- The impacts to businesses from the new CARA 1 boundary</li> <li>- Potential code changes under consideration</li> <li>- The stakeholder engagement process</li> </ul> </li> </ul>

The Sounding Board offers the following additional feedback and recommendations:

**Near-term considerations and recommendations:**

- The City should communicate early and often with property owners who may experience zoning or regulatory changes that lead to added expense.
- The City should provide fair compensation and incentives to businesses required to pay for new protections due to changing zones or requirements (commensurate with what Redmond has offered to property owners experiencing similar hardships in the past).
- The City should seek to align the zoning code and land use designations with Wellhead Protection Zone designations and requirements.
- The City should strive to keep Redmond an affordable place to operate a business and regionally competitive for new development.

**Long-term considerations** (beyond the time horizon and scope of this process):

- Relocating Well 4 could improve reliability and long-term performance of the City’s water supply, as well as reduce impacts on dewatering.
- The City should revisit conservation goals to further protect the City’s water supply.
- The City should examine dewatering practices and consider ways to reduce the impact to groundwater flow from dewatering.

**Other processes and tools**

- **Related regulations, policies, and planning processes:** The Sounding Board made several information requests and identified topics and ideas that could be considered or pursued through other City processes (e.g., upcoming updates to the City’s Comprehensive Plan and Water System Plan could set more aggressive conservation goals to further protect the City’s water supply). Related processes and items to track elsewhere were captured in the attached “Related Regulations, Policies, and Planning Processes” matrix.
- **Online public information and engagement tool:** An online tool was prepared to share more detailed process information, meeting materials, and Sounding Board contact information. The resource is available here: [redmondwhpzones.participate.online](http://redmondwhpzones.participate.online). The site was visited 96 times during the sounding board process by 47 different users.

## Guiding Principles

---

The group developed guiding principles at the beginning of the process that helped articulate how they evaluated options and recommendations. The group recommends that the Planning Commission and City Council approve policies that align with the following guiding principles.

**Overall**

- Best outcome for entire Redmond community
- Aligned with Mayor’s vision and Comprehensive Plan: [Redmond 2030](#)

- Reflects / incorporates community values (as shared through previous public opinion surveys or directly during Sounding Board process)
- Supports predictability (through intentional planning)
- Supports cross-jurisdictional coordination and reduces boundary effects (e.g., between Redmond and King County)

#### **Environmental**

- Adequately protects Redmond’s groundwater quality
- Ensures long-term reliability of Redmond’s groundwater supply (*assume 40- to 50-year timeframe*)
- Encourages best / progressive environmental practices (e.g., greener stormwater practices)

#### **Potential costs / benefits / impacts**

- Fairly treats / accommodates impacted community sectors
- Balances cost vs value vs impact
- Minimizes downstream and upstream impacts
- Minimizes unintended consequences (e.g., discouraging more sustainable redevelopment through restrictive regulations)

#### **Framing assumptions**

- Location of supply wells will not be adjusted through this process (due to the process’s short time-frame), but can be proposed for further exploration in the future.

## **Sounding Board Feedback on Process**

---

Sounding Board members provided feedback about participating in this process, and recommended that the City convene similar groups in the future to address complex policy decisions. Participants were largely complimentary of the process and were willing to engage in a similar group in the future.

#### ***Process strengths / benefits:***

- **General process:** The Sounding Board format improved on past outreach efforts on similar policy issues. This format was a good way to get feedback from a range of perspectives, including those who may be impacted by City decisions.
  - The group felt that the City listened to their feedback, and that recommendations reflect their input, concerns, and ideas. Everyone felt respected and comfortable sharing in this group.
  - City staff were praised for their patience and willingness to work through the process with community members. The project team did a good job responding to questions, researching and sharing information that participants needed to provide informed input.
  - The guiding principles helped outline the group’s goals and keep the work focused.
- **Number and timing of meetings:** Holding five three-hour meetings felt like the right amount of engagement and time commitment. The City’s use of a schedule poll to check availability worked well. The schedule seemed to be driven by the pace of the group and the City’s ability to

prepare technical information (as opposed to getting input too late in the process to make adjustments), which was appreciated by participants.

- **Technical detail:** The City demonstrated good foresight when they decided to collect the data used to update the groundwater model. This technical foundation was very important to the Sounding Board, and was presented at the right level of detail in an understandable way.
- **Engaging others in this process:** Many community members did not seem interested in this project because they were not directly impacted. For this reason, the Sounding Board was a useful forum. A range of participants were committed to engaging in more detailed conversations, and could offer feedback from different perspectives. For future efforts (to the extent possible), it would be helpful to anticipate who might be most impacted and encourage their participation. For example, it would have been good to include a fueling station representative in this group.

***Process improvements to consider:***

- **Representation:** The City should take care in how they describe the role of Sounding Board members. This group did not “represent” constituencies; rather, members represented points of view but did not speak for whole groups or sectors.
- **Continuity between meetings:** The time between meetings was long (sometimes several weeks) and made it difficult to remember discussions from prior meetings. While the group understood that time was needed to develop technical content, it would have been helpful to spend additional time summarizing previous discussions at the start of each meeting. Offering a phone call between meetings for those who could not attend (or were alternates) would also have helped with continuity.
- **Logistics:** A phone-in option could be beneficial for future groups, especially for those members traveling from other cities.

## Next steps

---

After the Sounding Board’s concludes, the following next steps are planned.

- **City process:** The project team will present recommendations and supporting documents to the Planning Commission for review, followed by presentation to the City Council for consideration and potential adoption.
- **Interjurisdictional coordination:** The City will continue to work with King County and other adjacent jurisdictions to best align newly adopted City Wellhead Protection Zones and regulations with neighbors (e.g., enforcing regulations outside City limits that affect Redmond’s aquifer).

- **Temporary Construction Dewatering policy exploration:** In 2018, the City will more deeply explore Temporary Construction Dewatering regulations, engaging stakeholders to again inform recommendations. As noted earlier, results of this 2018 work could lead the City to refine or adjust recommendations and policies made through this Sounding Board process.