

Meeting Summary

Meeting 4: Site Advisory Group Design Phase—Part 1

Location: Sandy High School Lecture Hall
37400 Bell Street, Sandy, Oregon

Date: January 9, 2020

Time: 6–8 p.m.

Speakers: Dan Speicher, Facilitator
David Peters, Program Director
Ken Ackerman, Pipeline Project Manager

Mark Graham, Stantec Senior Principal
Jude Grounds, Carollo Senior Project Manager
Jeff McGraw, President MWA Architects

Summary

Meeting Purpose: Share project and Site Advisory Group updates, identify design milestones, and map life in the community.

1. Welcome

Program Director David Peters welcomed meeting participants and shared a brief update on the City Council Resolution and other project progress. David also introduced Ken Ackerman, the project manager for the pipelines. Ken briefly summarized some of the planned activities to evaluate pipeline routes in the pipeline study area, including additional field investigations and outreach in early 2020.

2. Site Advisory Group

Facilitator Dan Speicher briefly highlighted some of the outcomes from the October and November Site Advisory Group meetings, including Site Advisor input on new members, meeting format, and reaching conclusions. Two community members will join the Site Advisory Group as new at-large members.

3. Water Treatment Facility Tours

Site Advisors shared their impressions and reflections from the November tour of the Willamette River Water Treatment Plant and provided input on what they'd like to see and learn more about during the upcoming February tour, including:

- The November tour helped answer a lot of concerns and questions about light, sound, waste, and chemicals for those who hadn't been to a water treatment facility before. Overall it was a beautiful facility.
- The filtration facility is significantly larger than the Willamette River Water Treatment Plant, and it would be helpful to see a facility that is more similar in scale. The Joint Water Commission's water



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treatment facility (February tour) is the largest in Oregon with a capacity of about 85 million gallons per day compared to the filtration facility, which will be 145 million gallons per day.

- The larger Joint Water Commission facility may give people a better idea for odors and sound.
- The Lake Oswego facility had a Good Neighbor Agreement and traffic was a high concern for that community. It might be useful to learn more about that process.
- We'd like to see examples of chemical storage and application as part of the February tour.

4. Design Concepts Discussion

Project Manager Mark Graham and Design Manager Jude Grounds from the filtration design team presented an overview of the design process. The presentation included a preview of design milestones where input from the Site Advisors will be incorporated and when more information on topics of interest will be available. Following the presentation, Site Advisors and audience members were invited to add their insights to a map of the community.

5. Public comment

Audience Questions

The following summarizes audience questions and responses from throughout the meeting.

- How will the facility improve resilience?
The Water Bureau is prioritizing improvements to the water system backbone to address high risk infrastructure and increase overall system resilience. The new filtration facility will be designed and constructed to better withstand an earthquake and will help us meet Oregon Resilience Plan goals, such as the ability to restore service within twenty-four hours of a major event. The filtration facility will also help to address turbidity and other potential impacts to the water supply that could result from a fire, landslide, or other natural emergency.
- What are the pipeline routes?
The final pipeline routes have not yet been selected. The recent City Council Resolution confirmed that there will be two pipelines that carry water to the facility to be treated and two pipelines that then carry that filtered water to the distribution system to serve customers. The project team is reviewing conceptual pipeline routes in the pipeline study area and will do more field investigations this year to inform selection of the routes. We'll be reaching out to property owners along the potential routes to share more information as that process continues.
- How will the pipelines improve resilience?
The new pipelines will be built to current seismic standards to better withstand an earthquake. Having two pipelines will also help to improve system reliability by allowing for maintenance or repair of a pipeline to occur without disrupting water service.
- Why do we need the filtration facility?
*The filtration facility is needed to comply with state and federal drinking water regulations and remove the microorganism *Cryptosporidium* from the water supply. The filtration facility will also help us address significant risks to our water supply such as a fire, landslide, or other natural emergency.*

- What chemicals will be used at the facility?
Some of the water treatment chemicals in conventional treatment are coagulants, polymers, potentially ozone, chlorine, and corrosion control chemicals.
- What are polymers?
Polymers are long-chain organic molecules that help to capture organics and particles, including pathogens, so they can be removed from the water by settling or filtration. The polymers are themselves removed from the water through the processes of settling and filtration.
- Will there be chemical residuals?
All of the chemicals that are added to treat water are tested and have to meet rigorous safety standards. The treatment process is designed to use as much of the treatment chemical as possible while producing clean and safe drinking water. The filtration process will help to reduce organics and the potential formation of disinfection byproducts in the distribution system.
Part of the treatment process will be to remove silts and clays from the water. The Water Bureau is looking at beneficial re-use options for these residual solids, such as use for landfill cover.
- What is the evacuation radius in the event of a chemical incident? How frequently will there be testing to avoid chemical safety issues?
The Water Bureau is evaluating inherently safer technologies for the filtration facility and will incorporate rigorous safety standards into the design and operation of the facility. The new facility will not use chlorine gas in the treatment process. Chemicals being considered are liquid or solid and will be fairly easy to contain on site.
- What will happen to the treatment process at Lusted Hill after the filtration facility is built?
The new filtration facility will have corrosion control treatment as part of the water treatment process. Some of the treatment processes that are currently happening at other facilities, including Lusted Hill and Headworks, will be moved and integrated into the process at the filtration facility.
- What are some of the similarities between this filtration facility and the Green River facility?
The Green River facility has a capacity of 150 million gallons per day—compared to the 145 mgd planned for the filtration facility—and has been in operation for about 5 years. Tacoma has similar water quality to Portland and previously had an unfiltered water supply. Tacoma made the decision to move to filtration for many of the same reasons that Portland did. The Green River facility uses many of the treatment processes anticipated to be used by Portland. They also have a gravity system. Unlike Portland's planned facility, the Green River project was an expansion of an existing treatment facility.
- What is the architectural style of a chemical storage facility?
The filtration facility will be designed with chemical storage inside of a building, so the architectural style will be similar to the look and feel that's selected for other buildings on the site.
- Can you expand on lighting requirements?

There are County codes that establish requirements for lighting design. A lot of design effort goes into minimizing light impacts from the facility using things like shielding so that light is directed downwards, not into the night sky. Flood lights are not allowed. There are some exceptions to Dark Sky code requirements for safety and emergency scenarios.

- What are some of the potential construction impacts when the facility is being built?
There will be noise and dust from construction activities. We will be working closely with the contractor to identify ways to reduce impacts to the community. Part of our objective with the Site Advisor process is to collect input and ideas from the community on ways to make the construction phase as painless as possible.
- What is the geology around the site?
The project team has been working to gather data about the local geology through field investigations and geotechnical borings. We will be looking at that data as the design process continues.
- What is the planned staffing at the facility?
The staffing of the facility will include operations and maintenance staff with varying numbers of staff onsite depending on the time of day. Similar facilities have 15 to 20 certified operators and 5 to 10 maintenance mechanicals on staff. At a given time, five to 10 staff might be onsite to run the facility. There will be parts of the system that are automated with sophisticated instrumentation and security measures to ensure safe operation.
- Why not hold these meetings in County closer to the project and those affected most?
In the October meeting, the Site Advisors provided input on the most convenient time and location for the group to meet. Based on that feedback, meetings are scheduled from 6 to 8 pm on the second Thursday of each month, with initial meetings in January, March, and May being held at Sandy High School.

Additional Questions and Feedback

- How will this project benefit the watershed overall? Can this facility keep pace with the City of Sandy's growth?
- Are there going to be settling ponds? How will those be constructed? Will they be lined?
- Will construction impact the groundwater aquifers?
- Will the treatment process change the taste of the water?
- How will the wildlife be affected by the project?
- How will the project impact property values?