



# Pikes Peak Reservoir and Pump Station Project

## Community Advisory Group Meeting #3 Summary

Date: March 30, 2017

Time: 6:30 – 7:30 PM

Location: Bellevue City Hall, 1E-118 (First Floor)

### Attendees

Community Advisory Group: Jennifer Duncan (Lake Washington Saddle Club), Suzanne Kagen (Lake Washington Saddle Club), Jim Erckmann (Bridle Trails Park Foundation), Alice Prince (Bridle Trails Community Club), Steve Brand (Washington State Parks), Richard Benson (Washington State Parks). (Absent: Kelly Losse, Jay Bergevin, Loretta Lopez)

Project Team: Jay Hummel (Project Manager), Regan Sidie (Design Services Manager), Andrew Lee (Utilities Deputy Director), Jenna Anderson (Consultant), John Chaney (Consultant), Ashley Bagley (Consultant)

### Summary

#### Welcome and Recap

Jay Hummel welcomed everyone to the third Community Advisory Group (CAG) meeting and provided a brief recap of the CAG's involvement thus far:

- Two CAG meetings (December 2016 and January 2017)
- One site visit (February 2017) where the project team:
  - Viewed the existing facilities
  - Discussed concerns and impacts of constructing new facilities
  - Visualized and gathered input on the reservoir height and other elements

Jay added that the project team developed evaluation criteria and draft alternatives based on the CAG's feedback and utility requirements.

#### Evaluation Process of Alternatives

Transitioning the discussion over to the technical update, Jenna Anderson informed the CAG that the team has been working through the first phase of evaluations and has developed draft evaluation criteria to provide a framework for the alternatives:

##### Reservoir Criteria

- Usable storage: 1.25 million gallons
- Floor elevation (inside): 530 feet (matches existing)
- Maximum roof elevation (outside): 568 feet (10 feet higher than existing roof)
- Clearance between reservoir and easement boundary:
  - 10 feet if pre-stressed concrete reservoir
  - 10 feet if square/rectangular reinforced concrete reservoir
  - 15 feet if welded steel reservoir

### **Pump Station Criteria**

- Footprint (outside): 25 feet by 35 feet (width by length)
- Clearance between pump station and easement boundary: 5 feet

### **General Criteria**

- Trail modification limitations
- Tree impact limitations

Jay added that the alternatives will go through a two-tier evaluation process and Triple Bottom Line analysis. The first evaluation tier will consist of a high-level pass/fail screening for fatal flaws, and the second evaluation tier will include a more in-depth engineering evaluation. The Triple Bottom Line analysis considers economic, social and environmental criteria and weighs these categories based on importance. Jay mentioned that we would discuss this in more detail later in the meeting and at the next CAG meeting.

Jay also briefly mentioned the topic of offsite alternatives and that we will discuss those in more detail later in the meeting. It is another possible alternative that the City has not yet developed but would like to receive feedback from the CAG.

### **Draft Onsite Alternatives**

Since the last CAG meeting, the team has been developing draft onsite alternatives in more detail. Based on this work, there are three categories that the draft alternatives fall under. They include:

1. Reservoir and pump station onsite, within existing easement (three options in this group)
2. Reservoir and pump station onsite, modified easement shape with same area (two options in this group)
3. Reservoir on-site, pump station offsite, within existing easement (two options in this group)

Jenna discussed the different options within each alternative group. For the draft alternatives that are **onsite, within the existing easement**, the different options include:

1. Round reservoir made of pre-stressed concrete
  - Based on Tier 1 evaluations, this option failed and will not be moving on to Tier 2 evaluation. It failed due to conflicts with both reservoir and pump station fitting within available space and maintaining proper clearances between each other and the edge of the easement.
2. Round reservoir made of steel
  - Based on Tier 1 evaluations, this option failed and will not be moving on to Tier 2 evaluation. It failed due to conflicts with both reservoir and pump station fitting within available space and maintaining proper clearances between each other and the edge of the easement.
3. Square reservoir made of reinforced concrete
  - Based on Tier 1 evaluations, this option passed and will be moving on to Tier 2 evaluation.

- For this option, the pump station can touch the wall. Note, the edge of the reservoir would be within the easement, but outside of the existing fence.

Based on these alternatives, the CAG asked if there is any way to change the shape of the pump station. Jay responded by stating that the technical team is using the most common size and shape pump station. In addition, Jay noted that the alternatives presented are based on an initial evaluation and that the next round of evaluation can include adjustments or modifications that have been suggested to better fit within the site.

Moving to the second set of alternatives, Jenna reviewed the **onsite, modified easement alternatives**:

1. Round reservoir made of pre-stressed concrete
  - Based on Tier 1 evaluations, this option passed and will be moving on to Tier 2 evaluation.
  - For this alternative, the CAG requested at least three feet of clearance between the fence (i.e. easement line) and the trail (on the south side of the easement area where the proposed modified easement would be). The Washington State Parks representatives at the meeting stated that if the easement boundary needs modification, the City will need Washington State Parks review and approval, and may need the Washington State Recreation and Conservation Office (RCO) to review and approve it too. (Note: The City needs to confirm whether the land that the easement is on falls within RCO purview).
  - The City confirmed the three feet clearance will be added to the rendering and re-evaluated to confirm it still passes the Tier 1 evaluation.
2. Round reservoir made of steel
  - Based on Tier 1 evaluations, this option failed and will not be moving on to Tier 2 evaluation. It failed due to conflicts with both reservoir and pump station fitting within available space, even with a modified easement boundary, and maintaining proper clearances between each other and the edge of the easement.

Lastly, Jenna discussed the **reservoir on-site, pump station offsite, within the existing easement alternatives**:

1. Round reservoir made of pre-stressed concrete
  - Based on Tier 1 evaluations, this option passed and will be moving on to Tier 2 evaluation.
2. Round reservoir made of steel
  - Based on Tier 1 evaluations, this option passed and will be moving on to Tier 2 evaluation.

For the pre-stressed concrete option, the diameter of the reservoir proposed is larger (as compared to the alternative for reservoir and pump station on-site) and thus the height is lower. Therefore, there is more flexibility for the reservoir's height and diameter without trying to fit a pump station on the site as well.

### **Potential Offsite Alternatives and Considerations**

Transitioning to offsite alternatives and considerations, Jay specified that the project team has not gone into great depths to evaluate if offsite options are reasonable/feasible. He added that the project team hopes to get the CAG's initial feedback on potential offsite alternatives before moving forward. Based on preliminary work, there are two potential alternatives for consideration:

1. Reservoir and pump station offsite at a similar elevation to the existing site
2. Reservoir and pump station offsite at a lower elevation

Any offsite location would require property to be acquired, more infrastructure to be built (e.g. water transmission pipes), and other necessary modifications to the existing water system.

For both potential offsite alternatives, Jay asked the CAG what they thought about moving the reservoir and pump station offsite (i.e. outside of Bridle Trails State Park). The CAG expressed a strong interest in keeping the reservoir onsite since it is a source of income for the state park for which the park users benefit. The CAG also mentioned that it would be difficult to support such a proposal, particularly since two of the CAG members live in the neighborhood, and that the neighborhood would not be happy about the move. The CAG indicated that they are used to having the facility within the state park and that if construction impacts are limited to the greatest extent possible, they do not see a need or benefit to move the reservoir outside of the park.

### **Questions Raised**

For all draft alternatives presented, the CAG asked the following questions:

- Are all reservoir heights presented at the maximum allowance?
  - The reservoir footprints (i.e. diameters) presented represent a 10 feet height increase based on the maximum allowable height as mentioned by the CAG at the site tour, except for the pre-stressed concrete reservoir on-site, pump station offsite, within the existing easement option; that reservoir had the flexibility to use a larger diameter and reduced height increase (approximately 2 feet higher than existing).
- Does a concrete reservoir take longer to build?
  - A concrete reservoir might take a few months longer to build, but requires less maintenance (e.g. no need to re-paint) over the life of the reservoir. The project team can include information on construction impacts/scheduling for the alternatives that passed the Tier 1 evaluation.
- Will construction be more than a year and a half?
  - Construction will most likely take approximately 14 to 18 months. This is a preliminary estimate. Once a contractor is selected, more information about construction duration will be known and shared with the community. The project team knows that minimizing construction impacts is important and will work to reduce the impacts to the greatest extent possible.
- Do all alternatives include construction access from the south?
  - Yes.
- During construction, will there still be trail access on weekends? Where will construction staging take place?

- The City can set specific work hours for the contractor; however, weekend work may occasionally be necessary or at least requested (e.g. the contractor may request working a weekend or weekends to speed up the schedule). In addition, the City can negotiate with the contractor on a staging location that is the least impactful to trails and trees. More information will be known once a contractor is selected. One possible staging area would be the area directly to the west within the Seattle City Light (SCL) easement between the main north/south trail and the site.
- Do you have an offsite location in mind for the pump station?
  - There is an existing site owned by the City at the Cherry Crest reservoir and pump station facility. The Cherry Crest pump station is due to be upgraded within the next seven years, and so this alternative would combine both pump stations into one larger pump station. The infrastructure is already in place at Cherry Crest; however, we will need to speak with that community. If the pump station is moved there, it would need to be a larger station to accommodate the existing Cherry Crest service area and the Pikes Peak service area.
- Will you allow moss to grow on the new reservoir?
  - Moss can damage concrete surfaces over time. A benefit to using concrete is that it does not need to be cleaned and repainted as often as a steel reservoir. With a concrete reservoir, there are also many aesthetic options in terms of colors or simply leaving the natural concrete grey color. Jenna agreed to bring pictures of colored concrete reservoirs for reference to the next CAG meeting.

### **Triple Bottom Line Discussion**

Jay gave a brief overview of what the City plans to use to evaluate and then “rank” the various alternatives under consideration. A process called Triple Bottom Line is a methodology to evaluate three main areas: economic (initial and life cycle costs), social (how does it affect people), and environmental (how does it affect the surroundings). Criterion will be developed, and then a weighted importance factor and a score will be applied to each alternative to then arrive at a total numbered score for each alternative from which to rank alternatives relative to each other. The next CAG meeting will discuss this in greater detail.

### **Next Steps**

Jay thanked everyone for sharing and wanted to discuss next steps before the meeting adjourned. Jay noted the technical team will take the CAG’s feedback and adjust the alternatives as necessary. In addition, they will prepare for Tier 2 evaluation and Triple Bottom Line analysis. He stated that he would email everyone a list of evaluation criteria for prioritization and weighting to help influence the Tier 2 evaluation process.

Jay informed everyone the next CAG meeting will be in approximately another month (early to mid-May) and that a Doodle poll would be emailed out to gauge everyone’s availability. In addition, he stated that the project team is starting to plan a community open house and that more information would be developed in the coming month. Jay thanked everyone for coming and told them he would follow-up via email.

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