

Scriber Creek Advisory Committee Meeting Summary

March 15, 2016, 5:00 p.m. – 7:00 p.m.
19100 44th Avenue West, Lynnwood, WA 98046
Lynnwood City Hall

Action Items

	Action Items	Person Responsible
1.	Follow up with HWA geotechs and look into settlement considerations for evaluating project #4 to see if there is any historical information on settlement in the area or whether the roadway at Old 196th Street was at one time the same elevation as the pedestrian bridge. <i>Note: The project team looked into this and sent its answer to the Advisory Committee.</i>	Herrera – Christina
2.	Inquire with Advisory Committee members about: <ol style="list-style-type: none"> 1) Their preferred method for receiving project communications going forward to determine the level of interest for holding the remaining meetings. 2) Their level of interest in endorsing the final corridor plan and possibly participating in a plan signing event sometime between June-September, 2016. 	Triangle – Evan

Welcome/Introductions

The purpose of the meeting was to present and discuss results of the Scriber Creek flood reduction alternatives evaluation, present highlights from modeling and project evaluation, and present the current status of selecting a preferred flood reduction alternative.

Attendees

Advisory Committee	Project Team
Chris Nyhus , Park View Plaza Business Owner Josh Brower , Representing Great Floors Owner	Robert Victor , City of Lynnwood Project Manager Jared Bond , City of Lynnwood Jeff Elekes , City of Lynnwood Christina Avolio , Herrera Mary Weber , Louis Berger Cynthia Carlstad , Triangle Evan Lewis , Triangle

Overview of Technical Work and Timeline

Overview of current work status for Phase 2 – technical analysis

Christina Avolio (Herrera) provided an overview of the flood reduction study purpose, goals, recent project technical work, and timeline. Slides shared during this presentation are found in **Appendix 1**. Highlights from the introductory and background portion of this presentation included the following:

- Phase 2 of the flood reduction project has involved surveying and basemapping, a geotechnical evaluation, evaluating existing conditions, collaborating with the City to build model scenarios, analyzing and reviewing modeling results, and evaluating projects based on regulatory requirements, sedimentation impacts, operations and maintenance, and costs.
- The Phase 1 recommendations report highlighted flood reduction evaluation criteria developed by the Advisory Committee and was foundational for the project team's Phase 2 evaluation of individual projects.
- Phase 2 evaluation is nearing the completion and the City is working toward selecting a preferred project alternative comprised of a suite of individual projects. Once a preferred alternative is selected, the City will work to complete a corridor plan by the summer of 2016.

Flood reduction projects:

Christina presented details of the project team's work for each of the 13 flood reduction projects evaluated by the technical team including cost, sediment, permitting, and funding source considerations. She shared a map showing the location of each project noting that modeling scenarios and alternatives are made up of suites of individual projects. Project combinations included in each modeling scenario are shown in **Appendix 2** and project combinations included in each alternative are included in **Appendix 3**. The Advisory Committee was provided with summary sheets for each project which described project benefits, feasibility considerations, required permits, and potential funding sources. Project summary sheets are shown in **Appendix 4**. The following projects were evaluated:

- **Project #1 – Raised trail at Scriber Lake:** Raising the trail would increase Scriber Lake storage and improve and elevate the trail above low frequency flood events. This is the furthest downstream project.
- **Project #2 – Remove diversion structure and oil/water separator downstream of 196th St. SW:** In addition to removing the diversion structure, which is not functioning properly, this project would provide minimum water depths for fish passage as well as channel stability downstream.
- **Project #3 – Replace 196th St. SW culverts in their existing location:** This replaces two existing culverts with one culvert. Several construction challenges were identified for this project and it will not be considered further.
- **Project #4 – Raise the old 196th St. SW:** This would raise the road above a frequently flooded area. The project team is looking at a different options for the kind of fill to use for this site.
- **Project #5 – Culvert replacement at driveway to Parkview plaza:** This project protects Parkview Plaza access and reduces the flooding frequency at 196th St. by replacing the existing culvert with a larger box culvert.
- **Project #6 – Replace culvert at Casa del Rey:** This would replace the existing two culverts with one larger, flow-aligned culvert to provide greater flood protection, increase flow capacity, and improve habitat and fish passage.
- **Project #7 – Maximize off-channel storage on Edmonds School District Property:** This off-channel area would be inundated during peak flood events and be designed to avoid fish stranding. Storage at this site could cause sedimentation however an access point would be provided for sediment removal. The storage area would drain between high flow events.
- **Project #8 – Acquire frequently flooded properties between 188th St. SW and 191st St. SW:** This includes the acquisition of approximately four frequently flooded properties and does not involve culvert replacement. It would enable owners of flood-prone properties to relocate. The project could improve storage and help lower downstream peak flows.
- **Project #9a, 9b, and 9c – Replace existing culverts at 191st St., 190th St., and 189th St.:** Existing culverts would be replaced with larger culverts that also provide fish passage and more habitat.

- **Project #10 – 188th St SW flood wall:** This would add a 200 foot long, 1.5 foot-high flood wall along 188th St. SW to add flood storage on a vacant parcel and reduce roadway flooding. Since this wall would be on a City right of way it would provide a simple to implement solution.
- **Project #11 – Maximize off-channel storage on the property north of 188th St. SW:** If implemented with project #10 this project would add flood storage for peak storm events, improve habitat and channel connectivity, and reduce sediment downstream.
- **Project #12 – Install small berms near Eunia Plaza and Flynn’s Carpets:** These berms would provide flood protection to business parking lots.
- **Project #13 – Replace driveway culverts near Eunia Plaza:** As an alternative approach to project #12, this project would instead replace two driveway culverts to reduce parking lot flooding.

The project team shared conceptual evaluation details for each project, including details about sediment, costs, permitting, and funding.

- Sediment: Sedimentation is an important consideration for operations and maintenance and there is sometimes a balance between slowing the stream for flood protection and control of sedimentation. When projects would cause sedimentation, access points and costs associated with ongoing sediment removal were considered. The project team also evaluated erosion areas and options for channel stabilization such as the use of large woody debris.
- Costs: The project team looked at several cost factors for each project including surveying, clearing and grubbing, excavation, traffic control, design, permitting, long-term operations and maintenance, and many other factors. Detailed cost estimate tables were provided to the Advisory Committee along with each project summary sheet.
- Permitting: A table was shared as an example of the several local, state, and federal permits required for projects and the overall complexity and time required for the permitting process.
- Funding: A table was shared highlighting details for several grants considered for projects.

Questions & Comments

During the overview of the project technical work and timeline, Committee members asked the following questions and made the following comments. Project team answers are in *italics*.

- Why were borings done for a flood reduction project?
 - *Borings were collected for the two proposed storage projects with floodplain reconnection aspects (Project #7 and #11). The boring log information provided valuable input on soil conditions where excavation work would be conducted, informed likely excavation slopes for the storage facilities, and provided additional data on groundwater levels and potential seepage.*
- How wide would the replacement culverts be for project #3?
 - *Project #3 culverts would 12.5 feet by 6.5 feet. This size is necessary to allow for large fish passage and to meet Washington State Department of Fish and Wildlife (WDFW) guidelines.*
- For project 3, how would the City go about excavating under the highway?
 - *Excavation under the highway would be difficult and would involve significant traffic control and shoring, and this was a factor for why this project is not being considered further.*
- Project #4 seems to make a lot of sense. Are there historical records on the old 196th St. SW elevation and was it ever the same elevation as the pedestrian bridge?
 - *Project #4 made the cut for further consideration. The project team will check on the available information on historical settlement or settlement considerations and get back to the Advisory Committee. Also, note that all of the project assumptions are found in the summary sheets.*
- What is the relative quality and price of the lightweight fill for potential use in Project #4?

- *The final geotechnical report is in-press and will include some recommendations for lighter weight fill that could be used in this type of setting. Lightweight fill would extend the lifespan of the project but is also more expensive than traditional roadway fill. The alternative is using traditional paving methods and returning to the site more frequently to repave.*
- For projects that would involve property acquisition, what are the benefits of acquisition compared to dealing with the flooding through other means?
 - *Frequently flooded properties could open up more flood storage to reduce flooding downstream. Acquisition would remove residences from flooded areas.*
- How much would storage increase by putting in a wall without excavation?
 - *Walls can add a significant increase in storage and excavation could also increase storage.*

Alternatives Evaluation

Alternatives Evaluation Background

The project team evaluated projects for inclusion in a final corridor plan. The 13 projects considered were grouped into scenarios for the purpose of modeling projects in the Scriber Creek corridor, and these modeling scenarios were further grouped into four, higher level flood reduction alternatives being considered by the City. For each flood reduction alternative, projects were compared based on individual project evaluation results and qualitatively scored using evaluation criteria in-part developed by the Advisory Committee in Phase 1, including community considerations, flood reduction performance, cost, ease of construction and implementation, ease of maintenance, and habitat improvements. The project team also considered some new criteria such as ease of permitting and life cycle/service life benefits.

Each alternative includes certain consistent project elements such as replacing the Park View Plaza and Casa del Rey culverts and replacing berming at Flynn's Carpet. However, there are significant differences among each alternative in terms of storage and conveyance improvements. The project team shared slides that highlight these differences. In evaluating the modeling results for scenarios that comprise each alternative, the City looked at the level of flood reduction impact as well as each scenario's potential to maximize flood reduction with the fewest number of projects.

Alternatives Evaluation Results

The project team shared a table showing alternative results based on an evaluation using the Advisory Committee and project-team-established criteria. The City is leaning toward selecting one of the following two alternatives:

- **Alternative A (model scenario 1)** – minimum corridor storage and comprised of projects #2, 4, 5, 6, 8, 10, and 12. This scenario relies in-part on property acquisition.
- **Alternative B (model scenario 2A)** – minimum-plus corridor storage and comprised of projects #2, 4, 5, 6, 9a, 9b, 9c, 10, 11, and 12. This scenario relies on culvert replacement instead of property acquisition.

Both alternatives A and B have similar capital costs but involve a tradeoff between culvert replacement and property acquisition – with Alternative A relying on property acquisition and Alternative B relying on culvert replacement. The City is currently evaluating the pros and cons of each alternative and the tradeoffs between culvert replacements and property acquisitions for reducing flooding. While Alternative A costs about \$600,000 less than Alternative B and could expand a trail, there are also tradeoffs with property acquisitions the City would consider. For Alternative A, the project team tested

its acquisition cost assumptions by studying costs that King County encountered when acquiring and demolishing properties in the Cedar River Corridor.

Questions & Comments

- In Alternative A, how many properties are being considered for acquisition?
 - *Four properties are being considered for acquisition. The City wants to get Lynnwood City Council's input on these two viable alternatives. The City does not have a lot of money to work with for this project and must weigh all of the pros and cons.*
- In comparing Alternatives A and B, the City should consider that there are more grants available for capital improvement projects than for ongoing operations and maintenance.
- Alternative B looks the best. It provides the most flood protection and has fewer operations and maintenance costs. It is also difficult to acquire four private properties and convince people that taking properties is for the good of the community. In addition, while the Parks Department might like the addition of a trail that might also be a burden in-terms of more trail maintenance.
 - *Regarding the potential for an extended trail with Alternative A, the City has a goal to create more connected trail corridors and overall walkability in the City as highlighted in the Healthy Communities Action Plan. While it is natural to want to find the easiest solution, the City has several considerations to balance.*
- Are there existing trails near the four residences that would be acquired under Alternative A?
 - *There are a few nearby trails and the City is looking at how to create trail corridors.*
- Does City of Lynnwood Public Works staff have a preference for either Alternative A or B?
 - *Public Works staff is evaluating the tradeoffs between the two alternatives.*
- Has the technical consultant looked at how projects would be sequenced for each alternative?
 - *It has just started to look at this. Some sequencing steps are clear – for example the City would not improve upstream conveyance before adding upstream storage capacity. However the consultant will look more closely at sequencing once an alternative is selected.*

Status of Selecting a Preferred Flood Reduction Alternative

Robert Victor (City of Lynnwood Project Manager) gave an overview of the City's status for selecting a preferred alternative. City Council will be briefed about the two Alternatives (A and B) in a closed working session on April 4 and then the City will move on to final selection and development of a draft and final corridor plan. Robert also noted that this flood reduction alternative selection and corridor plan is a high priority for the City. Jared Bond added that the City is sensitive to issues around residential property acquisition and City Council will consider this closely. He also noted that the City Council might first want to gauge the level of interest or concern around Alternative A before considering that option. While some frequently flooded homeowners might welcome their properties being acquired, others may not.

Jared added that the City is committed to public-private partnerships and would like to discuss with the Advisory Committee more ways to approach such partnerships. Robert noted that the City is happy with the project team's work and also happy the City involved the public early on in this planning project.

Next Steps

The project team will continue to evaluate and compare Alternatives A and B, complete final scenario modeling, and will present details of each alternative to Lynnwood City Council on April 4. When a final preferred flood reduction scenario is chosen, the City will develop a draft and final Corridor Plan. Also,

the project team will reach out to the Advisory Committee about the way it would like to be involved with this project going forward – since attendance has noticeably dropped off at the last two meetings. The City would also like to know the Advisory Committee’s interest in endorsing and perhaps coming to a signing event once the plan is complete sometime between June and September 2016. This would go a long way toward showing there is strong public buy-in for the corridor plan.

Questions & Comments

- An Advisory Committee member said he is willing to provide Council testimony in support of the selected alternative.