

**Pine Gulch OSP Update for Pine Gulch Dam
Meeting Minute
March 8, 2010
Town of Parker**

Date: March 8, 2010, 10:30pm – 12:05pm.

Location: Town of Parker Town Hall

Attendees: Shea Thomas, UDFCD
Tom Williams, Town of Parker
Frank Lan, URS
Greg Glunz, URS
Max Shih, URS

Discussion Topics:

1. Hydrology Memorandum

The team discussed review comments for the hydrology analysis memorandum. Shea cleared that 2-hour storms should be used for the baseline hydrology models and subsequent alternative analysis instead of the 3-hour storms because the design will be for the Pine Gulch only. Because of the new design storm as compared to what was used in the Sulphur Gulch OSP, no calibration of the new baseline hydrologic models to match the flows in the Sulphur Gulch OSP is required.

Secondly, the existing inadvertent storage east of Pine Drive should be kept as it is now in the baseline model, but not in the future condition model. Tom mentioned that the City currently owns that land.

2. Geotechnical Drilling

Frank reported that the drilling was done on January 25- 28, 2010. The drilling took a little bit longer than planned because of the hard bedrock encountered, which also indicated sound foundation for the dam. URS is in the process of preparing a memorandum and waiting for results from the lab, which should come in this week.

3. Dam Hazard Classification Report

The team discussed about the comments from Dave Andrew of NRCS, who mentioned in an email dated February 16th that the dam should be classified as high hazard. Greg mentioned that NRCS' classification is strictly from a technical standpoint. However, the modeling results that the high hazard classification was based on are in a gray area that should get a second look because of the locations where high hazard were identified. According to Greg, there's a good chance that SEO will agree with our study and maintain the low hazard classification. Greg has contacted Paul of SEO and learned that

Paul might be reviewing our report this month. Greg will be meeting with Paul next week on a different project and he'll bring it up when it's appropriate.

Tom expressed continuous interest in maintaining the dam as low hazard. Classifying the dam as high hazard does not provide any financial benefit to the City even NRCS has financial support to upgrade the spillway if the dam is re-classified as high hazard. Maintenance for the dam might also be an issue if it is classified as high hazard.

4. Alternative Analysis

Max presented the four alternatives:

- 1) No dam, no detention, enlargement of all conveyances with channel improvement.*
- 2) With dam, no detention, enlargement of all conveyances with channel improvement.*
- 3) With dam, one detention, minor channel improvement, no enlargement of culverts under Pine Drive and Main Street.*
- 4) With dam, two detentions, minor channel improvement, no enlargement of culverts under Pine Drive and Main Street.*

Shea mentioned the design channel slope in Alternative I should be 0.4% or less according to the District's criteria. Additional channel widening and grade control structure might be applied in channel improvements. Tom mentioned the existing inadvertent storage east of N. Pine Drive should not be considered as a storm detention provider in Alternatives I and II. The drainage conveyance enlargements in Alternatives I and II should not include any additional detention reduction. The future developers should provide properly on-site detentions in developments.

Tom mentioned that for all alternatives, the water quality control volume should be built into the 100-year detention volume because the downstream water quality control pond at the confluence with Sulphur gulch was sized for area downstream of the dam. Shea mentioned that it's acceptable that the most downstream detention pond only requires water quality control volume for drainage area up to the next upstream water quality control point. So if a water quality control volume is provided at the dam, the most downstream water quality control does not need to include that upstream of the dam.

Tom questioned if the analysis should use pipe as the conveyance between Talon Drive and Cozy Pine Lane because of the small flow through that particular reach (with the dam in place) and the future developer would surely want to make it pipe flow. Shea mentioned that it should be kept as open channel in the Plan. Future developer could make the change when that happens.

For the reach between Pine Drive and Main Street, again, Shea mentioned that the current analysis should keep open channel as the conveyance, not pipe that might be used in the future. Tom also wanted URS to size the pipe as an alternative instead of open channel.

Tom and Shea agreed that water quality control volume should be sized at the dam for the with-dam alternatives.

Tom mention the preliminary design of N. Pine Drive detention could be delineated using a 4:1 side slope and available pond depth.

Tom mentioned that land value should be added to the cost-benefit analysis for each alternative. Use \$10/ft² for area that will be used for the channel enhancement and detention. Also should use 10 ft as buffer zone (5-ft on each side) along channel reaches. A buffer zone of 10-ft on each side should be applied to the crossing culverts under paved roads. Tom will verify the unit land value to be used in the analysis.

At last, Tom mentioned the preliminary Alternative III might be more appropriate based on the City's current stand point since the second detention next to the church north of Talon Trail is not owned by the City and might have land acquisition issue.

5. Dam ROW and Easement Issue

No update was available on this issue because Garth could not make to the meeting. Frank will contact Garth to get an update.

PROJECT SCHEDULE UPDATE

- Updated Schedule:
 - *Geotech Work – January 25-26, 2010 (Done)*
 - *Dam Hazard Classification Report – Sent to SEO*
 - *Hydrology Analysis Memorandum – January 22, 2010*
 - *Alternative Analysis Memorandum – February 12, 2010 (Draft)*
 - *Revised Hydrology Memo and Alternative Analysis Report – End of March*
 - *Conceptual Design – TBD*
 - *Public Presentation – To be determined after the Conceptual Design*
 - *Draft Final Report – May 21, 2010*
 - *Final Report – July 30, 2010*

Action Items:

- *Frank will follow up with Garth on the dam ROW and Easement issue.*
- *Revised hydrology memo and alternative analysis report – due end of March.*
- *Tom will verify the unit land value to be used in the analysis.*

Next Meeting:

- *To be determined, preferably after receiving SEO's comment*