

## South Boulder Creek Process Advisory Group Meeting notes

Friday September 18, 12 – 2 p.m. (Continued from Aug. 20 meeting)

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### NOTES

#### 1. Introductions

Draft notes from 8/5 and 8/20 approved. No comments or corrections.

Two questions from last meeting. Materials were provided 9/11 for review. Go over those answers today

1. How much water goes into the gravel pits if we remove the levee?
2. Staff need to know what the next steps are, clearly define scope of further work for the rest of the year.

#### 2. Brandon Coleman presentation. (Can be seen [Here](#))

A. Existing conditions. Clarified flow rate of when SBC leaves its bank near US36 roughly 800cfs.

B. Removal of Levee (Updated slides since last meeting).

- Sam's question: If the levee removed then water goes to the West Valley Overflow? Yes, that is correct, West Valley Overflow floods when levee removed.
- Gordon: can we show conserved volume in this modeling? (Input=output) Yes, would require different modeling/measuring (Peak Flow vs. Time or Volume).
- Arising from a question from John G., Joe and Brandon confirmed that the same flow constraint was used at US36 in all models, the structure is the same, just different what volume of water gets to it (levee vs. no levee).

C. Inflow Rundown. This model was run to answer the question: does this keep water from going to West Valley Overflow? Includes the assumption of grading to encourage water to flow into the gravel pits.

- This scenario captures all the west side of the split flow in the gravel pits.
- From John G., what is the capacity of Dry Creek Ditch #2? 177cfs is the existing culvert—which they assumed throughout this model. Sam clarified that the small difference between Dry Creek Ditch #2 capacity and the flow to the gravel pits could be due to pressure. Brandon mentioned that not all numbers match up exactly, that this model is trying to show key parts, (*i.e. peak flow*). Sam, taking this point further noted that as the numbers displayed are peak flow, not equal numbers in volume/time input to output (time could be used as the constant as a different model).
- With inflow rundown, the west side split flow is captured in detention, but without also constructing a flood wall at US36, the model still shows overtopping at West Valley Overflow.
- Curt asked, can we divert more water under the US36 bridge? Brandon mentioned that this is still Open Space property and there are related impacts. Joe brought up various issues, primarily that CDOT ROW extends to a few hundred feet from US36. CDOT will not allow us to use the ROW for an above ground floodwall, so we cannot tie into US36. Gordon, Variant 1, will also deal with ROW? Joe, yes, but for that plan we can go underground.
- Rachel asked, what are the differences to impacts on Open Space between these different options? Joe, answering and segueing to the next questions summarized that there is enough flow in the main channel from SBC to overtop US36 on its own, so we need to do something more to prevent West Valley flooding.

- Dan, this is the mathematical/theoretical set of questions, so if we come to an understanding here, THEN we go to the second half of question—the impact on open space.
- It's not possible to 100% contain the flood impacts to CU South property. Joe mentioned that we need to consider impacts on Open Space, even if we could 100% contain in CU South. Brandon mentioned that one of the points of the presentation was to get everyone to come to an understanding of what the floodplain is looking like, seems like we are?
- Heidi brought up the question of: have we reached a consensus on what the floodplain looks like? No dissents.

### 3. Scope of Work

Sam opened up this section of the meeting by summarizing that building structures to detain SBC flow will have impacts on Open Space, which leads to Rachel's question of, is there anything better we can do for Open Space impacts? Back and forth discussion led to a step by step consensus check:

- **Question 1:** If you capture all the water in the flow split, do you prevent US36 from overtopping? Consensus was No.
- **Question 2:** Could you further develop the upstream concept solely on the CU South property to direct enough water into the CU South property to eliminate or reduce the need for a flood wall? Consensus was No.
- **Question 3:** Are there any gaps? Is additional work needed?

Moving forward from there, Curt brought up the point that if we are saying that we need to have a floodwall/hard structures in Open Space, then we need to ask about permitting. Relating to that point, Joe asked everyone, but especially OSBT, how do you feel about this? Curt clearly stated that, if floodwall to bedrock the whole length of the valley was the requirement, then it is a non-starter. Karen agrees.

Moving further on from the theoretical, Brandon and Joe mentioned that, in these models we have assumed a line, but really it is a high-risk dam, cutting off dry creek ditch #2. The State engineer will be involved in the permitting, and the City will have to go through this process with the state engineer.

Relating to potential gaps and additional work, Gordon asked how hard of a requirement is it to tie into bedrock? (If keyed in both sides, then non-starter) Can we get more water into the western split flow? Can we get more water under US36?

### 4. Next Steps

Next Process Subcommittee Sept. 25, 2020 –to discuss what this group has arrived at, what our work plan and scope of work is going forward.

Questions that were brought up by committee members for the next meeting:

- How does the tie in have to work on the east side of the structure? Hard requirements for tie in on the east side of a structure? Can the state engineer be flexible in any part of the design?
- Curt would like to know how to guarantee that we capture the amount of water we say we will in the models.
- Dan Burke, how to guarantee that a conveyance structure will give predictable conveyance on Open Space.

- John asked everyone to think on what the level of acceptable impacts is to open space land. Agreed that we are moving in a good direction.

Office Hours: Joe, Gordon, Curt, and Brandon agreed to meet before next Friday 9/25.

**Additional Notes:**

Zoom Q&A with members of the public can be found [here](#).