



MEETING MINUTES

Second Creek MDP & FHAD

Upper Watershed - Alternatives Workshop

Date: October 5, 2017
Location: UDFCD
Distributions: Agenda, Basin Maps

Attendees:

<u>NAME</u>	<u>ORGANIZATION</u>	<u>EMAIL</u>
Russell Nelson	Adams County	rnelson@adcogov.org
Bill McCormick	Aurora	bmccormi@auroragov.org
Craig Perl	Aurora	cperl@auroragov.org
Sarah Young	Aurora	syoung@auroragov.org
Elizabeth Fint	Brighton	efint@brightonco.gov
Matt Amidei	Brighton	mamidei@brightonco.gov
Scott Olsen	Brighton	solsen@brightonco.gov
Sean Coyne	Brighton	scoyne@brightonco.gov
Andrew Pihaly	Commerce City	apihaly@c3gov.com
Maria D'Andrea	Commerce City	mdandrea@c3gov.com
Catherine Rafferty	DIA	catherine.rafferty@flydenver.com
Alan Leak	RESPEC	alan.leak@respec.com
Jennifer Winters	RESPEC	jennifer.winters@respec.com
Haley Heinemann	RESPEC	haley.heinemann@respec.com
Teresa Patterson	UDFCD	tpatterson@udfcd.org
Shea Thomas	UDFCD	sthomas@udfcd.org
Brett Price	Oakwood Homes	bprice@oakwoodhomesco.com
Mark Throckmorton	Fulenwider	mark@fulenwider.com
Blake Fulenwider	Fulenwider	blake@fulenwider.com
Aaron Clutter	JR Engineering	aclutter@jrengineering.com
Tristan Bonser	JR Engineering	tbonser@jrengineering.com
Pat Horn	Martin/Martin	phorn@martinmartin.com

1) Purpose

The purpose of the meeting was to discuss potential alternatives for detention within the upper and middle portions of the watershed.



2) Final Baseline Hydrology

RESPEC noted that the final baseline hydrology report was submitted to UDFCD on September 29th. The report will be uploaded to the project website (in progress). In the meantime, the report will be made available to project sponsors via DropBox.

ACTION: RESPEC will provide all project sponsors with Final Baseline Hydrology Report via Dropbox.

3) Upper and Middle Basin – Detention Alternatives

- **Future to Natural Condition Flows:** As discussed at the August 30th progress meeting, the group discussed the need to determine a reasonable discharge at the DIA border. The 2006 IGA provided a max discharge of 500 cfs; however, it is not clear how that discharge was determined and there is little historic documentation to support the 500 cfs. Additionally, Ballot Measure 1A (passed in November 2015) approved the Aerotropolis project, which will likely alter the future imperviousness, land uses, etc. within the upper portion of the watershed.

Therefore, the group discussed revising the future discharges from the upper and middle portions of the watershed. The approach will be to reduce the future conditions peak flows to meet natural conditions peak flows through detention. For example, at the upstream DIA border, the future conditions 100-year peak flow is 7,793cfs; alternatives will be developed to add detention in the upper portion of the watershed to reduce the future peak flow to 3,613 cfs (the natural conditions peak flow).

Also, in order to document why the 500 cfs is undesirable and unfeasible, one alternative in the report will be based on keeping the 500 cfs discharge at the DIA border.

ACTION: RESPEC to provide one alternative that proposes 500 cfs at the DIA border.

- **Downstream Impacts:** It was discussed that some existing downstream infrastructure was sized to meet the previous proposed discharges (i.e. 2006 IGA flows).
 - Brighton:** No known crossings were designed to meet the capacities of the peak flows presented in the 2006 IGA. Therefore, there are currently no known conflicts.



- ii. **Commerce City:** Major crossings have been constructed to meet the 100-year discharge presented in the previous MDP at 104th Ave., Tower Rd., and 96th Ave. The capacity of the new crossings needs to be maintained with the discharges proposed in this MDP.

Additionally, it was suggested that because the proposed peak flows will be changing from those presented in the 2006 IGA, that the IGA be amended after this MDP is completed to document the newly proposed peak flows. Project sponsors agreed that there may be potential to do this after the MDP is completed.

- **Needed Detention Volumes:** RESPEC explained that in order to reduce the peak flows from future conditions to natural conditions, the following approximate detention volumes would be needed:

- i. Upper Basin (u/s of DIA): ~304 AF
- ii. Middle Basin (w/in DIA): ~116 AF

- **Potential Detention Locations:** During the working portion of the meeting, the group reviewed the previous locations of proposed detention from the 2011 MDP (Olsson/Matrix), the 2006 IGA, DIA Masterplan, and other sources. Project sponsors in the upper and middle portions of the watershed provided RESPEC with potential locations for detention and eliminated locations that are no longer desired.

- i. **Upper Watershed:** Specific ponds discussed included:

1. **Pond S-213** was proposed in the 2011 MDP to be located upstream of 56th Ave. The pond could be moved closer to 56th Ave. or upstream of Powhaton Road for the alternatives analysis.
2. **Pond S-206** could be moved downstream of the location proposed in the 2011 MDP to just upstream of 64th Ave.
3. **Ponds GG1 and GG2** are to be assumed to be permanent facilities within the Porteos property. The Draft Alternatives Report will provide conditions that must be met in order for GG1 and GG2 to be considered permanent, regional detention. Further coordination with the Porteos property is necessary in order to achieve the detention needed in the upper portion of the watershed.

ACTION: The City of Aurora will schedule a meeting with UDFCD, RESPEC, and Porteos to discuss detention.



4. **Ponds S-214 and S-215** could be located in the same areas as shown in the 2011 MDP, but may need to be downsized.
 5. **On-site Detention:** Discussion that there may be potential to use onsite ponds as regional detention if they are maintained by a metro district and the contributing drainage area is at least 130 acres.
 - a. **ACTION:** The City of Aurora to provide property boundaries and names within the upper watershed.
 6. In addition to the ponds described above, **additional locations** for storage were provided on the working maps by project sponsors during the meeting.
- ii. **Middle Watershed:** Current DIA policy allows detention on DIA property for DIA use only; therefore, one alternative will include this scenario. In addition, alternatives will be explored that would consider larger detention in DIA property for development upstream of DIA but would be caveated that the costs (including land value) would be assumed to be covered by the upstream developers. Specific ponds discussed included:
1. **Pond S-235** is currently planned within DIA just upstream of E-470. Detention alternatives will maximize detention within this proposed pond while not impacting the current runway protection zone (RPZ).

ACTION: DIA to provide boundaries of RPZ.
 2. **Pond S-219** was previously planned to be located just downstream of the eastern DIA border. The pond is no longer planned to be constructed by DIA; however, the potential may still exist for storing water within the undevelopable floodplain boundary at this location.
- iii. **Lower Watershed:** The 2004 OSP proposed a three pond series within the City of Commerce City. The 2004 OSP sized the ponds in a series by progressive storm events. Additional discussions with the City of Commerce City and the Reunion development will be needed to determine these detention locations.
- ACTION:** RESPEC will schedule a meeting the City of Commerce City and the Reunion Development to discuss detention.
- **Alternatives:** Detention alternatives will include:



- i. **Alt. 1 – No Detention:** An alternative showing no proposed detention within the basin.
- ii. **Alt. 2 – 2006 IGA Peak Flows:** An alternative demonstrating the impacts to the watershed assuming a proposed 500 cfs peak 100-year discharge at the DIA border (as detailed in the 2006 IGA).
- iii. **Alt. 3, 4, etc.** Alternative(s) demonstrating potential detention locations discussed during the working portion of the meeting. Prior to preparing the Draft Alternatives Report, RESPEC will provide the project sponsors with a brief memo outlining the proposed alternatives and detention locations.

ACTION: RESPEC will provide the project sponsors a brief memo outlining proposed detention alternatives.

- **Deliverables:** The group discussed the project schedule and path forward. The process will be to complete the Draft Alternatives Report for the entire watershed and for detention only. RESPEC will submit the Draft Alternatives Report to the project sponsors to use as a management tool during the interim period while the remainder of the MDP is being completed. RESPEC will then begin the hydraulics/floodplain mapping portion of the study which will feed into the remainder of the alternatives (determining structure sizing, floodplain deficiencies, capacity issues, etc.) and also the FHAD modeling and mapping. After the hydraulics are completed, then RESPEC will finish the remainder of the Alternatives Report and begin the Conceptual Design phase.

4) Project Schedule

- Website – completed within two weeks – 10/20/2017
- DRAFT Alternatives Report (detention only) – 11/3/2017
 - i. Stakeholder Review Comments – 11/17/2017
- Progress Meeting – last week November/first week December
 - i. RESPEC will coordinate meeting date/time after the Draft Alternatives Report has been submitted.



5)

Action Items

- RESPEC will provide all project sponsors with Final Baseline Hydrology Report via Dropbox.
- RESPEC to provide an alternative that includes meeting the 500 cfs peak discharge at the DIA border.
- The City of Aurora will schedule a meeting with Porteos, UDFCD, and RESPEC discuss detention alternatives.
- The City of Aurora to provide property boundaries and names within the upper watershed.
- DIA to provide boundaries of RPZ.
- RESPEC will schedule a meeting with the City of Commerce City and the Reunion Development to discuss detention.
- RESPEC will provide brief memo outlining proposed detention alternatives.