

## MEETING AGENDA

# Lower Cottonwood Creek Outfall Systems Planning Study

Meeting Date: March 18, 2008

Meeting Location: UDFCD

### 1. Objectives for Meeting

- a. To describe progress to date, present baseline hydrology results, discuss formulation of general detention alternatives and initial hydrologic results, and confirm next steps.

### 2. Progress to Date

- a. Gathered and reviewed information from many sources, including Lone Tree, Douglas County, Inverness, Arapahoe County, SEMSWA, Centennial Airport, and in-house records. Data included existing and proposed detention basin data, proposed channel improvements, existing infrastructure, planning documents, etc.
- b. Subwatershed boundaries were reviewed and modified to coincide with post-1991 development including current and future detention basin locations, and to limit subwatershed size to 130 acres.
- c. Existing and future impervious values were determined with the use of aerial photography and available data.
- d. SWMM connectivity was reviewed and revised, and conveyance elements briefly reviewed and modified as needed.
- e. Existing detention basin data was compiled and incorporated into baseline hydrology model.
- f. Baseline hydrology was updated with newest release of CUHP, ver. 1.2.1c.
- g. Potential locations for future detention facilities were identified, developed, and incorporate
- d into an alternative SWMM model.
- h. Project website was developed and brought online.

### 3. Baseline Hydrology Results

- a. Draft results for future development conditions in comparison to original and converted 1991 model.
- b. Draft results for existing development conditions, future development conditions, and for potential alternative detention facilities.

### 4. Potential Alternative Detention Facilities Shown in Results Above

- a. Skyridge sub-regional detention basins.
- b. Ridgegate detention basins at Lincoln Avenue.
- c. Inverness detention basins.
- d. Peoria Tributary detention basin.
- e. Havana Tributary detention basin.
- f. Caley detention basin.

**5. Organization of General Detention Alternatives**

- a. Alternative A -- 18-ponds (14 existing and 4 planned).
- b. Alternative B – Alt. A with selected retrofitting for EURV.
- c. Alternative C – Alt. B with 4 to 6 additional regional ponds.
- d. Each alternative will be presented with estimated costs for detention in comparison any cost savings associated with stream improvements, and percent of theoretical WQCV and 100-year detention attained for watershed.

**6. Existing Conveyance Limitations**

- a. Inverness Drive East Medical Building.
- b. Generally not a problem at road crossings.
- c. Other locations?

**7. Stream Improvement Alternatives**

- a. Level of improvements and estimated costs are based on existing drainageway conditions.
- b. General approach: restore degraded inverts, incorporate grade control, preserve existing riparian vegetation where possible. Channel enlargement will be proposed where capacity is limited.

**8. Next Steps**

- a. Complete review and refinement of baseline hydrology.
- b. Further develop detention and stream improvement alternatives.
- c. Prepare Baseline Hydrology Report.
- d. Prepare draft Alternatives Evaluation Report.
- e. Schedule meeting to present draft Alternative Evaluation Report.