STATE OF COLORADO

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TO: Colorado Water Conservation Board Members

FROM: Kevin Houck, P.E.
Chief, Watershed and Flood Protection Section

DATE: January 15, 2014

SUBJECT: **January 27-28, 2014 Board Meeting**
Agenda Item 27 – Update on 2013 Flood Frequency Study

Staff Recommendation
This is an informational item and staff is not requesting board action.

Introduction and Discussion
Northern Colorado experienced one of the worst flood disasters in state history in September 2013. This flood damaged or destroyed numerous state highways and bridges, primarily in the South Platte River basin. In addition, this flood destroyed numerous streamgauges and other measuring devices and created significant erosion and stream movement, which made measurement of flood flows extremely difficult.

The Colorado Water Conservation Board (CWCB), in partnership with the Colorado Department of Transportation (CDOT), has undertaken a significant effort to measure peak flows from the 2013 flood and to investigate an update of hydrologic models for watersheds that experienced significant damage. Staff will update the board on the progress of determination of the initial findings for peak flows during the flood. The effort is also currently underway to reevaluate basin hydrology for the affected watersheds. Results from that effort will be summarized at a future board meeting.

Currently, best available information is being used for comparison to peak flood discharges. This comparison involves matching the peak flow rates from the 2013 flood to the regulatory discharges published in the Flood Insurance Study (FIS) for each county, as prepared by the Federal Emergency Management Agency (FEMA). When the new hydrologic models for each watershed are completed and approved, an updated comparison to peak flowrates from the 2013 flood will be made. This may result in a different peak flow frequency for some of the watersheds. While it is my belief that the updated information will yield a better overall estimate, this information is not yet available at this time. As such, the estimated flood frequencies presented in this investigation is based on the best available information as of this date, but should be treated as provisional and subject to change.

The watersheds studied during this analysis include the South Platte River, Coal Creek, Boulder Creek, the St. Vrain River, the Little Thompson River, and the Big Thompson River. Final deliverables, when completed, will include a summary of peak flood discharges from the 2013 flood, a comparison to regulatory flows, and an estimate of the observed flood frequency.