Meeting Summary

Project Title: SWSI Update

Prepared for: Colorado Water Conservation Board

Purpose of Meeting: Agricultural TAG Workshop

Date: September 27, 2017

Location: Denver West Conference Center

Time: 9:00 a.m. to 1:00 p.m.

Following is a general summary of input received during the Agricultural Methodology Technical Advisory Group (TAG) meeting on September 27, 2017. Specific comments from TAG participants and corresponding responses are provided as Attachment A. We appreciate the TAG participants' thoughtful contributions and all comments and recommendations will be carefully considered as we prepare the final Agricultural Methodology.

Agricultural Diversion Demand and Gap

- TAG participants discussed the pros and cons associated with representing the agricultural diversion demand as the amount of diverted or pumped water necessary to meet the full crop demand, as this a significant difference from the approach taken in previous SWSI efforts.
- Participants noted the following concerns regarding the new approach:
  - It will likely produce an agricultural demand, and resulting agricultural gap, that is artificially high due to existing agricultural shortages.
  - The resulting demand and gap may not provide appropriate values for planning purposes as it is unlikely that proposed projects will be able to satisfy the full gap.
- To address these concerns, the group discussed options to report the Planning Scenario agricultural demands and gaps relative to current levels so future planning efforts could more easily focus on the *increased* demand and gap amounts.
- Additional discussion centered on how the agricultural gap could be further defined or discussed in the final report to reflect the fact that return flows generated from any new irrigation project may be available to meet a portion of the remaining agricultural gap. For example, 10,000 acre-feet of new supply may be able to meet 12,000 acre-feet of the gap due to the re-diversion of return flows. The SWSI Update team noted that the amount of return flows that may be available from a proposed project would vary widely depending on the proposed project and irrigation operations across the state; however agreed to include this discussion in the final report.

Planning Scenario Factors

- TAG participants felt it was appropriate to include urbanization as a Planning Scenario factor, and did not express any major concerns with the proposed methodology. The group discussed

applying the amount of water that may be available from changed irrigation supplies on the urbanized land and make that available to meet the future municipal demand.

- TAG participants agreed with the recommendation to incorporate planned acreage development in the Yampa and North Platte River basins, as presented in their Basin Implementation Plans.
- The discussion regarding the ground water acreage sustainability factor revolved around the types of information that are expected to come from the interviews with ground water managers and users in each basin, and if that information would vary across Planning Scenarios. The SWSI Update team indicated the interviews would likely include discussions on the primary limiting factors for ground water use in each basin (e.g. aquifer sustainability, Compact Compliance, augmentation supplies) and how they anticipate the limiting factor may affect irrigated acreage in the Planning Scenario futures. The SWSI Update team noted that ground water modeling would not be included in this SWSI effort; however individual basins may use the SWSI information for future ground water modeling.
- There was a brief discussion regarding the implementation of the climate factor, centering on the resolution of the information (Water District – level) and to what parameter of the agricultural diversion demand it would be applied (irrigation water requirement). TAG participants agreed with the recommended approach.

Emerging Technologies Case Studies/Example Projects

- The Emerging Technologies methodology produced a significant amount of discussion among the TAG participants. The discussion addressed pro and cons of various options from developing the case studies to adjusting system efficiencies in one or more basins across one or more of the Planning Scenarios.
    - TAG Participants in the South Platte River basin indicated that installation of center pivot sprinklers would likely continue in the basin, and this development and resulting improved system efficiency should be reflected across all Planning Scenarios.
    - TAG Participants in the Arkansas River basin noted that sprinkler development may continue in their basin; however irrigation improvement rules that require the replacement of return flows may either slow that development in the future or alter how that development may play out in specific Planning Scenarios.
    - West Slope TAG Participants noted several impediments to significant increases in sprinkler development in their basins. These impediments include the large financial investment required for the sprinkler development and the prevalence of sloped and incised terrain not conducive for sprinkler development.
- TAG Participants also debated whether adjustments to system efficiencies constituted an IPP, which are not included in the SWSI Update effort, and whether other types of emerging technologies such as hybrid seed technologies should be reflected in the SWSI Update effort.
- To address this topic and most appropriately delineate the planning scenarios of the SWSI Update, the technical team recommended further detailing the various options that were discussed. This information will inform the final follow-up Agricultural TAG meeting the week of November 6th, after which the Agricultural Methodology memorandum will be revised with the most appropriate approach.