

**Comments by Tom Easley, Director of Programs
The Rocky Mountain Climate Organization
On December 2014 Draft of Colorado's Water Plan**

May 1, 2015

Thank you for the opportunity for the Rocky Mountain Climate Organization (RMCO) to provide these further comments on the current draft, dated December 2014, of Colorado's Water Plan.

We are encouraged that the current draft of the plan is a substantial improvement over the prior draft with respect to its consideration of climate change and its potential impacts on Colorado's water supplies and water quality—the topics addressed by the comments that RMCO provided in October 2014 on the previous draft of the plan. In the current draft, climate change is given further coverage, in the general direction of many of the comments that we and others previously submitted. Substantive additions have been made to the water supply and demand chapters, particularly in the sections regarding recreational and environmental needs, and also to the scenario planning section in Chapter 6. Still, there are further revisions that we believe should be made in the next draft, to bring into much sharper focus what the state government, water suppliers and users, and the general public can do to fully address the substantial risks that climate change poses to water supplies and water quality.

We have not repeated here what we said in our October 2014 written comments, and again commend those comments to the attention of the Colorado Water Conservation Board and its staff. Although changes were made in the December 2014 draft of the water plan that amounted to substantial progress toward the points we outlined in our earlier comments, those comments remain almost entirely relevant to the current draft. In these comments, we return to some of the main themes of our earlier comments, and highlight how further revisions in the draft water plan are still needed to incorporate not only our earlier comments but also the September 2014 comments of Denver Water and also the comments being submitted this week by the Colorado Water Working Group at the Getches-Wilkinson Center at the University of Colorado Law School.

1. The draft should be revised to further emphasize and provide details on how climate change increases the risks to Colorado's water supplies and water quality.

As we said in October 2014, “the final plan should clearly lay out the ways in which climate change magnifies Colorado's water challenges, as that information is necessary to document why new actions are needed to meet our water needs in the future.” As Denver Water, in the first of the 10 points it addressed in its September 2014 comments, wrote:

we also think the climate change portion falls short. The state should include in the Plan more information addressing the effects of and the need to adapt to climate change. Other western states have been more proactive in including climate change into their statewide planning. While some general information is provided in the Plan, the full breadth of the potential impacts of climate change needs to be explicitly included and explained.

Similarly, the Colorado Water Working Group commented, “The CWCB should make explicit the increased risk associated with climate change to the array of interests in the uses of Colorado water . . .”.

Despite the changes made in the December 2014 draft, all of the above comments, as well as the specific suggestions that followed the general statements by RMCO and Denver Water quoted here, still apply.

As we stated in our October comments, Western Water Assessment’s August 2013 update of its 2008 report for the CWCB, *Climate Change in Colorado*, provides much excellent information about how Colorado’s climate may change and how those changes may affect our water resources. We suggest in particular that key information about projected climate changes (from section 5 of that report and from the supplemental online information on the WWA website) be included in the water plan. More such detailed information is needed so that the water plan clearly defines Colorado’s climate change-related water risks.

Denver Water, in its September 2014 comments, made a similar recommendation:

The recently released 2014 CWCB Climate Change in Colorado Report has a wealth of information that needs to be incorporated into the Plan, including a summary of the projected range of changes in weather, snowpack and stream flow found in chapter 5.

2. The draft should be revised to provide an actual plan for what the Colorado state government will do to address the risks—from climate change and other factors—to the state’s water supplies and water quality.

Although there are some possible state actions identified in various parts of the current draft of the water plan, we believe what is included falls short of an actual plan, and that the next draft needs to clearly indicate the actions that the state government proposes to take to address the risks to our water supplies and water quality.

This general point is also consistent with Denver Water’s September 2014 comments, which included multiple recommendations for actions to be added to the water plan to provide “state leadership” in addressing Colorado’s water needs. Denver Water also said:

The state, however, does not have a viable plan to adapt to climate change. The problem is exacerbated by the fact that many smaller water providers will be looking to the state for guidance because they lack the resources necessary to take on this matter by themselves.

Perhaps even more clearly, the Colorado Water Working Group, in its comments this week, identified how the current draft does not amount to an actual plan with respect to climate change risks:

But the Draft does little to provide a framework for managing this risk. The Draft states that ‘[i]n partnership with the Climate Change Technical Advisory Group, the CWCB will monitor the potential impacts of climate change to Colorado’s water needs.’ While necessary, these actions do not provide a meaningful risk management framework.

We recommend that the CWCB provide in the next draft, as explicitly and implicitly called for in the comments quoted above, an actual framework for actions the state government will take to

address the state's water risks, especially as magnified by climate change. The current draft, in Chapter 10, acknowledges that this may be done in the next draft with respect to possible state legislation. We think that additional state government actions—not just legislation but also other types of action—need to be clearly laid out in the next draft of the water plan so that it actually constitutes a state government plan of action. In our October 2014 comments, we identified some of these needed state actions focused particularly on climate change. One key point is Colorado Water Conservation Board guidance to the basin roundtables on how to consider their basin implementation plans in the context of projected climate changes. (See more on this in point 4 below.) By contrast, the state water plan seems to be headed toward hands-off deference to the basin roundtables, which are employing widely varied approaches; this does not really amount to a statewide plan.

3. The draft should be revised to provide quantified details on two key inputs to the plan that currently lack sufficient details: the scenarios of possible futures, and the analysis of how climate change may impact future demands for water.

As described on pages 90-92 of the current draft, five scenarios have been developed by the IBCC and CWCB to collectively capture a broad range of future supply-and-demand possibility and uncertainty. These are short, subjective descriptions of possible futures. RMCO supports the use of multiple scenarios and the inclusion of climate change impacts on both water supplies and water demands as components shaping those scenarios. However, we continue to believe it is important that quantified climate change analyses be used to further define these scenarios. We understand that the CWCB has been working on this, and we emphasize that we think it essential that such quantification of the scenarios be completed, incorporated in the next draft, and used as benchmarks to evaluate possible future water actions (see item 4 below).

Also, the current draft includes figures depicting a range of projected impacts of climate change on future demands for municipal and industrial water uses and for agricultural water uses (Figure 5-2 on page 72 and Figure 5-5 on page 80). This is important information, and we applaud the CWCB for commissioning this needed analysis and including the summary information shown in the figures. However, this analysis needs further explanation, both as to its results and to the assumptions which went into it. For both figures, the cited source is a draft technical memorandum which, as far as we know, is not available to the public. We recommend that the next draft of the plan include more information on this analysis, that the analysis be used as one input to the quantification of the five scenarios, and that the analysis itself be made available to the public.

In addition, the next draft should also summarize other existing information on how climate change may affect water demands, as detailed in our October 2014 comments.

4. The draft should be revised to:

- **include an initial analysis of how the current basin implementation plans would contribute to addressing (or not addressing) the state's projected M&I water gap in the quantified scenarios, after incorporating the projected quantified impacts of climate change on future water demands; and**
- **establish a process, to follow the December 2015 completion of this water plan, for further reconsideration by the basin roundtables of how their initial basin implementation plans would contribute to addressing or not addressing the state's projected M&I water gap in the quantified scenarios, after incorporating the projected quantified impacts of climate change on future water demands.**

As stated in our October 2014 comments, rather than entirely deferring to the different basin roundtables on how they consider climate change impacts (leading to widely divergent results), the CWCB should provide state leadership in bringing about some consistency. With a December 2015 deadline for a final report, two different steps are probably needed. The CWCB should itself perform an analysis of how the current basin-roundtable-drafted implementation plans would contribute to addressing (or not addressing) the state's projected M&I water gap in the quantified scenarios, using the quantified analysis that we recommend (and expect) will go into fleshing out the five scenarios of possible water futures. That initial analysis could be included in the final report. Secondly, as time probably does not permit the basin roundtables to revisit by December their implementation plans in light of the quantified analysis for the scenarios, the final plan could set forth a process for the basin roundtables to do so in late 2015 and early 2016.

5. The draft should be revised to further emphasize and provide details on how, especially because of projected climate change impacts, the greater possibility in the future of curtailments under interstate compacts increases the risks to Colorado's water supplies, and how the state government will prepare for and address these increased risks.

As our October 2014 comments stated, the water plan should much more clearly lay out how climate change greatly increases the risks of curtailments under interstate compacts of Colorado water rights, as that ultimately may be Colorado's greatest water risk. As Denver Water stated in its September 2014 comments, "Although the risk of Colorado River Compact curtailment is low, the consequences are potentially disastrous." The comments continued to recommend that the plan be revised to "[r]ecognize the need for and identify ways to empower the state to act aggressively and proactively to avoid compact curtailment in the current drought as well as in the long- term."

The above comments still apply, and we believe the next draft should address the compact issues in greater detail, as they arguably represent the strongest reason why new actions may be needed to meet our water needs in a changed future.

6. The draft should be revised to propose that the Governor establish a task force to advise the state government on identifying and addressing climate change risks to the state's water supplies.

The Colorado Water Working Group in its comments recommends that "the Governor establish a task force of climate scientists, water suppliers, water users, and other representative interests to identify those aspects of water use in the state that are most at risk because of climate change and to develop guidance for the basin roundtables and water suppliers and managers for managing these risks." We support this recommendation. Such a high-level, broadly representative task force can help to bring to bear the full range of expertise and interests in our state to meet these important challenges.

We appreciate the Colorado Water Conservation Board's consideration of these comments.