Bringing Water Together

Submitted via the electronic comment portal at www.arb.ca.gov

December 16, 2016

Mary Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Association of California Water Agencies' Comments regarding the Discussion Draft of the 2030 Target Scoping Plan Update

Dear Ms. Nichols:

The Association of California Water Agencies (ACWA) appreciates the opportunity to comment on the California Air Resources Board's (CARB) Discussion Draft of the 2030 Target Scoping Plan Update (Discussion Draft). ACWA represents more than 430 public water agencies that collectively supply 90% of the water delivered in California for domestic, agricultural, and industrial uses. ACWA supports CARB's comprehensive approach to managing greenhouse gas (GHG) emissions, and appreciates the overall goals of the Scoping Plan pursuant to California Assembly Bill 32 (Pavley, Chapter 488, Statutes of 2006) and Governor Brown's Executive Order B-30-15. However, ACWA has some concerns regarding the water sector section of the Discussion Draft found on pages 75-80.

ACWA recommends that in order to gain greater energy savings in the water sector, the Discussion Draft should emphasize the following points: 1) water utilities must first meet their obligations to provide safe and reliable water before meeting GHG emissions reduction goals; 2) the greatest potential for energy savings resides with water end users, where water conservation plays an important role; and 3) the continued de-carbonization of the state's electrical grid will benefit the overall water sector. As such, ACWA offers the following suggestions:

1. ***Emphasize that water utilities must first meet their obligations to provide safe and reliable water before meeting GHG emissions reduction goals***

ACWA recommends that the following text from page 77 be moved to the opening paragraph of the water sector section on page 75 to highlight this point within the Discussion Draft.

- **Page 75; opening paragraph, add the following text:**

  "*While it is important for every sector to contribute to the State's climate goals, ensuring universal access to clean water as outlined in AB 685 (Eng, Chapter 524, Statutes of 2012), also known as the "human right to water" bill, should take precedence over*

achieving GHG emission reductions from water sector activities where a potential conflict exists. AB 685 states that it is the policy of the State that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." As described in this section, water supplies vary in energy intensity and resulting GHGs due to the source of the water, treatment requirements, and location of the end user."

2. ***Emphasize that water end uses (i.e., heating and cooling) comprise the greatest opportunity for energy savings with the water sector***

In 2005, the California Energy Commission released a report (CEC-700-2005-011-SF) which found the primary source of GHG emissions within the water sector to be a result of the various end uses of water, primarily household heating of water. As such, ACWA recommends that the Discussion Draft be revised to prioritize methods and processes to reduce the embedded energy of water end uses through the following suggestions.

- **Page 76; second paragraph, revise as follows:**
  - "One of the State's largest uses of energy is attributed to several aspects of the water life cycle, including ~~treatment~~, end uses such as heating and cooling, and water treatment and conveyance ~~heating, and conveyance of water~~."
- **Page 78; bottom of middle paragraph, revise as follows:**
  - "Likewise, energy is used in multiple ways in end uses and at multiple steps in water delivery and treatment systems, including energy for heating and chilling water; treating and delivering drinking water; ~~heating and chilling water;~~ conveying water; extracting groundwater; desalination; pressurizing water for irrigation; and wastewater collection, treatment, and disposal."

3. ***Emphasize that water conservation and California's Renewables Portfolio Standards benefit the water sector***

CARB accurately identifies on page 76 of the Discussion Draft that 10% of energy use in the water sector is attributable to customer end uses such as heating and cooling, and that only 2% is attributable to water utility embedded energy. End user actions to reduce water consumption result in reduced GHG emissions. Additionally, in 2015, Governor Brown signed Senate Bill 350 (De León, Chapter 547, Statutes of 2015) which enhances California's Renewables Portfolio Standard to require electricity retailers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030. This shift in California's electric grid towards greater carbon neutrality will inevitably create greater carbon neutrality in the water sector.

In addition to renewables portfolio standards in the energy sector, water agencies across the state are developing their own energy portfolios, such as adding solar facilities to their treatment plants and exploring opportunities to add additional hydroelectric power to decarbonize their energy use. ACWA recommends that the Discussion Draft be revised to highlight de-carbonization of the energy grid and water conservation as the two primary opportunities for GHG emissions reductions in the water sector.

- **Page 76; last paragraph, revise as follows:**

Original:

"~~Therefore, emission reduction strategies are primarily associated with reducing the energy intensity of the water sector. Energy intensity is a measure of the amount of energy required to take a unit of water from its origin (such as a river or aquifer) and extract and convey it to its end.~~"

Revision:

"The principal source of greenhouse gas (GHG) emissions comes from the fossil fuel-based energy consumed for water end uses (e.g. heating). Therefore, emissions reduction strategies are primarily associated with water conservation programs and other strategies targeting the reduction of energy intensive customer end uses. In addition to conservation, additional strategies also target the embedded energy in water supplies."

- **Page 77; top paragraph, revise as follows:**
  - "The integrated nature of the water supply system means that long-term reductions in water demand and the development of alternative local supplies may reduce the need for imported supplies to meet demand growth ~~that a reduction by one end user can be offset by an increase in consumption by another user~~."
  - The discussion of offsets is out of place in this section. This language should be deleted, relocated, or revised to include the following language: "long-term reductions in water demand and alternative local supplies does reduce the need for imported supplies to meet demand growth."

- **Page 77; Looking to the Future section, revise as follows:**
  - Move the third bullet to the top and rewrite as follows: "Support water conservation programs ~~and projects~~ that reduce energy-intensive customer end-uses of water, which also save embedded energy programs and projects ~~increase water sector energy efficiency and reduce GHG emissions through reduced water and energy use~~."
  - ~~o~~ Rewrite the fourth bullet as follows: "Reduce the carbon footprint of water systems by continuing to decarbonize the state's electrical grid and help fund water agency activities that reduce the overall energy intensity of the water sector ~~and water uses for both surface and groundwater supplies through integrated strategies that reduce GHG~~."
  - Add a bullet that states: "Understand that adapting to climate change impacts and increasingly stringent regulations may require many water utilities to increase their energy use in order to achieve their primary mission of protecting public health and safety by providing safe, clean reliable water supplies and maintaining reliable public infrastructure."

- **Page 80; New Potential Measures or Supporting Actions section, revise as follows:**
  - Consider deleting the first bullet, or rewrite as follows: "Local water and

wastewater utilities should adopt a long-term goal of reducing the carbon footprint of water where technically feasible and cost effective while understanding that adapting to climate change and increasingly stringent regulations may increase the energy intensity of water supplies in many cases ~~to reduce GHGs by 80 percent below 1990 levels by 2050 (consistent with DWR's Climate Action Plan), and thereafter move toward low carbon or net-zero carbon water management systems where technically feasible and cost-effective~~."

- Add a bullet targeting energy intensive end uses, such as the following: "State agencies including DWR should fund water and energy conservation programs targeting energy-intensive customer end uses."

4. Revise statements regarding regulatory requirements for water utilities

ACWA recommends the following changes to clarify the regulatory environment surrounding GHG issues for water utilities:

- **Page 79; second paragraph, revise as follows:**
  - "The measures below include some ~~required and new~~ potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector.", as some of these listed measures are existing activities or recommendations, not requirements.
- **Page 79; last bullet, revise as follows:**
  - "Cal/EPA will oversee development of a voluntary registry for GHG emissions resulting from water-energy nexus, as required by SB 1425", as SB 1425 only requires a voluntary registry of GHG emissions.

5. Remove recommendations in Appendix D that are related to the water sector

ACWA recommends that CARB remove recommendations related to the water sector in Appendix D: EJAC Initial Recommendations. These recommendations are the result of brainstorm meetings with EJAC members and have not been presented to nor vetted by the water community, including the Department of Water Resources and the State Water Contractors. As such, these are not appropriate recommendations to include in the Draft Discussion, nor the final Scoping Plan.

ACWA appreciates CARB's continued work on the Scoping Plan to ensure that California thoughtfully and efficiently reduces GHG emissions. If you have any questions regarding this letter, please contact me at KellyM@acwa.com or (916) 441-4545.

Sincerely,

Kelly McBee

Kelly McBee
State Legislative Analyst