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To: 2020Comments@waterboards.ca.gov
Date: Fri, May 22, 2009 10:22 AM
Subject: RWA Comments on 20x2020 plan

Please find attached the Regional Water Authority's (RWA) letter to the 20x2020 Interagency Team regarding RWA's Comments on the 20x2020 Water Conservation Plan (Draft). Also attached is a copy of the RWA Policy Principles on Water Conservation and Water Efficiency.

Shauna Lorance

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RWA

May 22, 2009

To: 20x2020 Interagency Team

From: Shauna Lorance, Chair, Regional Water Authority

RE: Comments on 20x2020 Water Conservation Plan (Draft)

Governor Schwarzenegger made a bold proclamation when he challenged California to reduce per capita water use 20% by the year 2020. He proposed this action as a part of a comprehensive solution for the crisis in the Sacramento-San Joaquin Delta. An interagency team undertook the formidable task of developing a plan to achieve this statewide goal in a state as diverse as California. The resulting 20x2020 Water Conservation Plan (Plan) offers some insight into what might be achieved through more aggressive water conservation measures in the state, and has encouraged discussion of the need for improved water efficiency to meet our future demands.

Unfortunately, we have a number of concerns with both the approach and the outcomes of the Plan.

- The Plan does not identify the specific objectives that were being sought from the goal of 20% conservation by 2020. As a result the Plan does not maximize any specific benefit from the water conservation actions proposed.

- The original focus of the Governor's call for 20% conservation, as an element of a comprehensive Delta solution, was lost along the way. No analysis of the benefits to the Delta from the proposed conservation targets was conducted. This is most clearly demonstrated by the Plan's failure to consider the fact that nearly half of the urban water use in Hydrologic Region 5 returns to Delta tributaries and meets environmental needs or is diverted to supply other users. In light of this fact, the Plan's baseline for determining what conservation actions would be necessary in any region should be the region's "net" usage of water from the Delta watershed.

- The Plan is based on limited data, a limited budget for analysis, and a limited timeframe and yet proposes statewide conservation targets that could drive hundreds of millions to billions of dollars of federal, state, and local expenditures between now and 2020. Although there is never enough data to make perfect decisions, the Plan is not nearly well developed enough to guide such a large reallocation of money to one particular water management tool.

- The Plan is based on the flawed reasoning that all regions of the state should tend toward the statewide average per capita water use, rather than considering regional

differences in climate, land-use patterns, locally available water supplies and water-related energy consumption. Such an approach results in infeasible and inequitable conservation targets and a potential reallocation of water supplies outside of the water rights system.

- By taking a top-down approach that would prioritize water conservation over other water management options like conjunctive use, the Plan overlooks the state's foundational water policy of integrated regional water management to improve regional reliability and self-sufficiency.

- The Plan fails to clearly recognize that, under existing Water Code section 1011, the supplier that conserves water is entitled to retain the benefit of that water. The Plan must evaluate who would benefit from conservation in each region and propose equitable funding mechanisms.

- Many of the recommendations are premature as they are based on the limitations of the Plan described above.

The Regional Water Authority (RWA) represents 22 water providers and affiliated agencies serving more than a million people in El Dorado, Placer, Sacramento, and Yolo Counties. The greater Sacramento area represents the largest urban population center in the state that has achieved the goal of water self-sufficiency, relying entirely on local surface and groundwater supplies rather than water imported from another hydrologic region. This self-sufficiency is preserved in part through the Water Forum Agreement, which was begun in 1993 and signed in 2000. The Agreement was designed to meet the co-equal objectives of providing reliable water supplies for the region to the year 2030 and preserving the environment of the lower American River. Our region's co-equal objectives predated the co-equal goals adopted in the Delta Vision that are driving much of the current discussion of water issues in the state. Water conservation is one of seven key elements of the Agreement, and water providers in the region are committed to actions that are projected to achieve a 20% or greater reduction in per capita water use by 2030.

RWA members unanimously adopted the attached policy principles, and RWA seeks state water conservation policy that is consistent with these principles. The Sacramento region is committed to implementing extensive water efficiency measures in our area and to assisting the state in solving California's water crisis. Our region, however, must not be required to invest significant additional resources to conserve water beyond that called for in our regional plan, which would primarily benefit other areas.

More detailed comments on the 20x2020 Plan are provided below.

<u>Benefits are not optimized by the methodology chosen</u>

On page ES-ix, the Plan lists a number of benefits that may be realized by increased water conservation. Unfortunately, the plan never clearly identifies which of these objectives were of higher priority. As a result, the plan is not optimized to accomplish any specific objectives. As

an example, the plan identifies reduced energy demands and greenhouse gas emissions as a benefit, but misses a large opportunity to address this fact by assigning smaller conservation reductions to the areas that consume the most energy to deliver their water supplies. Despite the need for reductions in GHG emissions identified in AB 32, the Plan's conservation targets ignore the fact that four times more energy is needed to deliver water from the Delta to southern Californians than to deliver water from local sources in the Sacramento region.

In 2009, the Governor proclaimed a statewide drought emergency. The impact of this third dry year, however, is not a uniform statewide water shortage. Instead, certain regions of the state, especially those dependent on exports from the Delta, are facing shortages. Some regions have normal or near normal water supplies in 2009. The interagency team had an opportunity to develop the Plan to maximize water conservation in those regions most in need of improved water supply reliability (such as regions 2, 3, and 4), but instead allocated a disproportionate 30% reduction in water use to the Sacramento River Hydrologic Region, and thereby the Sacramento urban area.

Stay focused on the Delta solution

Unfortunately, the Plan lost the original focus of the Governor's directive, and failed to take advantage of the opportunity to identify conservation targets to maximize the reduction of Delta exports. Although the plan correctly identifies the Governor's original intention that 20% conservation should be a part of a plan for improving the Delta, none of the analysis in the plan attempts to consider the benefit to the Delta of conservation in any region.

When water conservation policy is focused on the Delta, local supplies that are used within the Delta watershed must be treated differently from Delta exports, which irretrievably remove water from the Delta. Over 42% of the water used in the Sacramento area returns to Delta tributaries, where the water serves environmental needs or provides supplies for other regions through the Central Valley Project and the State Water Project. On the basis of "net" water use from the Delta watershed, the Sacramento area is below the current statewide average gpcd and approaches the proposed 2020 statewide target.

Limited data and flawed methodology create an inequitable result

The plan itself identifies the data used as incomplete and inconsistent, and labels the targets as preliminary only. The decision to organize the data by hydrologic region rather than ETo zones (which may have been more representative) was made because "data available...were easier to collate by hydrologic region." The state should not base the investment of hundreds of millions to billions of dollars over the next 11 years on an approach developed because it presented the lesser data-collation challenge.

The Plan does not consider self-supplied water (page 3). While this may be an item that can be overlooked at a hydrologic region scale, as smaller regions or individual suppliers attempt to meet targets, this may be a major consideration. Whether major industries provide their own water or are served by an urban water supplier can have a significant impact on gpcd.

The Plan is founded on an estimate of the statewide average water use, and on the premise that all regions should strive to reach a statewide target derived from this average. When the weighted average is driven by the ¾ of the state's population that lives in the coastal hydrologic regions (Regions 1-4), with cooler climates and prior conservation that was driven by expensive and unreliable water supplies, it is a given that the remaining regions will have higher water use by comparison. However, the Plan assigns the regions that are closest to the target a lesser reduction (17-20% in regions 1 through 4), and assigns disproportionate responsibility for reductions to regions 5 through 10 (30-39%). This is not only inequitable, but it misses the opportunity to drive extraordinary conservation measures where they are truly needed to improve water supply reliability. To the extent the plan proposes greater reductions for regions with a high level of reliability and self-sufficiency than those facing potential shortages, the result is a potential uncompensated reallocation of water with no regard to water rights or area of origin protections.

The Plan claims that the analyses were designed to consider the climate differences between regions, but nowhere were these differences considered in adjusting the regional targets. The ETo zones map of California (Figure 2) is included in the plan, however the content of the map is never used in the analysis. Inclusion of this map points out one of the major flaws of the Plan. The highest ETo zone is 117% greater than the lowest, but no adjustment is used for the inland hydrologic regions (5-10) relative to the coastal hydrologic regions (1-4). All are considered on the basis of their divergence from the "statewide target." As an example, the Sacramento area's ET is nearly 20% higher than the Los Angeles Basin and nearly 60% higher than San Francisco. This driver for water use needs to be factored into conservation targets for those targets to have any practical meaning.

The plan suffers from a lack of consistent data for the entire state. As a result, the data may not be accurate for any specific region. As an example, the plan identifies 253 gpcd as the current water use for the Sacramento River Hydrologic Region. However, the greater Sacramento area, which includes more than half of the population of the hydrologic region, has an average use of 290 gpcd. The Sacramento area would have to reduce water use by 13% just to reach the baseline identified in the Plan.

The most fundamental flaw in the approach is the apparent assumption that a gallon of water saved anywhere in the state, by any water user, is equivalent. A statewide volumetric balance of this sort has little or no value. The Plan contains no analysis of whether the water saved in a given region will benefit the conserving water users, other water users, or the environment and fails to recognize water users' right to retain the water they conserve under Water Code section 1011. Proposing to invest hundreds of millions to billions of federal, state, and local dollars on the premise that some vaguely defined benefits will result is unrealistic at best.

The Plan refers to, "regions where the price of water is furthest from fully reflecting the true costs of water supply and does not include the costs of extensive conservation programs (page 10)." Nowhere, however, does the Plan explain what it considers to be "the true costs of water supply" and the use of that singular term suggests that the Plan assumes "the true cost of water

supply" is the same in all regions of the state. Such an assumption, however, is demonstrably incorrect. The regions with the most expensive conservation programs tend to be those in which the cost of water supplies is the highest, driven by high operational costs and the high avoided costs of alternative supplies. The Plan itself demonstrates the differences in "true costs" of water (Table 6, on page 19) when it indicates that *none* of the identified conservation measures would be cost-effective in Region 5. Although the Sacramento area is often perceived as one of the areas where the price of water is "too low," the area actually has a better record of compliance with BMPs than the statewide average.

The Plan identifies factors that include population, climate, land use patterns, and the industrial and socioeconomic characteristics of a region as drivers for water use (page 10), and states that analyses were conducted by hydrologic region to "recognize and account for some of this variation." While these differences may be reflected in the different baseline values, the Plan fails to base its development of regional water conservation targets on any region-specific analysis of these factors, but instead compares each region to a "statewide target."

The Plan states, "The coastal regions (1 through 4) have the lowest GPCD partly because they have a cooler climate, limited water supplies, and higher cost of water, and because they have implemented more water conservation programs than many of the inland areas. This statement is generally true, but misses the reality that in those cases where more costly water conservation programs have been implemented, it has generally been in response to limited supplies and the high costs of other alternatives.

Figure 5 illustrates well the impact of climate on water use. Indoor use, which is relatively climate-independent is similar across all 10 regions. It is outdoor use that drives the large differences in gpcd. Moreover, the Plan does not account for the fact that water suppliers frequently have little control over the land-use patterns that drive outdoor water use. Local control over land use has been a fundamental aspect of state policy for decades and water suppliers' authority and ability to address the water-use impacts of local land use decisions is limited. Therefore, the climate and land use differences among regions must be fully reflected in any proposed targets.

Table 7 brings home the inequity of the Plan. Some regions that face uncertain water supplies and potential shortages (namely regions 2, 3, and 4, as evidenced by the requests for water by urban suppliers under the 2009 Drought Water Bank), are not expected to implement the "additional measures," while Region 5, whose agencies are predominantly self-reliant on local supplies, are expected to implement the additional conservation measures, even though they are identified as not being locally cost effective.

Table 9 demonstrates the inequity as well. While Region 2 and 3 could accomplish significant additional water savings (30 gpcd and 26 gpcd respectively) their target is not reduced below the "basic measures" level. Likewise, Region 4 could achieve 29 gpcd savings, but is only expected to achieve 7 gpcd from the additional measures. Implementing the additional measures in these regions could save significant amounts of water, would reduce demand on Delta exports, and would help these regions improve their water supply reliability through cost

effective measures. Contrast that with Region 5, which is expected to implement the additional measures to achieve a 49 gpcd savings, when the region does not face the potential shortages impacting much of the rest of the state. It is striking that the Plan makes this proposal notwithstanding the fact that the Plan itself, in Table 6 on page 19, indicates that *none* of the identified conservation measures would be cost-effective in Region 5. The Plan apparently justifies the disproportionate conservation burden on the unsubstantiated assumption about the "true costs of water supplies." That assumption must, at the very least, be explained and examined in detail. Without such a discussion, the Plan could be perceived to impose an economic burden to save more water on the ratepayers in Region 5 to make water available for regions that rely on Delta exports.

Focusing on regional planning and regional self-sufficiency will help to craft an equitable Plan

For the past several years, the state of California has promoted two overriding water policy principles, first that regions should strive to improve water self-sufficiency, and second that local agencies and regions should develop a "toolbox" of strategies to meet water supply reliability needs through integrated regional water management. The top-down approach to a single water management strategy presented in the Plan and the greater requirements on regions that are already self-sufficient (like the Sacramento region) conflict with these foundational state policies.

The Plan correctly identifies grant funding as important to meeting the targets (page 10), and rationalizes the fact that all regions receive a proportionate share of the Proposition 84 funding. However, by proposing more stringent water use reductions in some regions, the Plan undermines the "proportionate" shares in Proposition 84. Moreover, because Region 5 – unlike more urbanized regions – must allocate state bond monies among extensive agricultural, urban, and environmental water uses, Region 5 urban users would be at a relative financial disadvantage in comparison to those other, more urbanized regions.

The Plan states, "All unmetered urban connections should be converted to metered connections before 2020 (page 21)." While this would likely help to meet the state's 20x2020 goal, it wouldn't necessarily benefit the reliability of the water providers required to accelerate the metering. If the policy is pursued, significant state funding should be provided to help reach the statewide (rather than local) goal.

The plan proposes that, "...where urban water supply costs remain low. Different mechanisms will need to be devised to incentivize water suppliers in these regions to aggressively pursue conservation." This statement tends to overlook the fact that low cost may be a result of abundant local supplies developed with significant local investment. Therefore, "different mechanisms" to achieve conservation may tend to benefit water users other than those required to take the actions. If this is the case, state funding should be focused in Region 5 and other regions that have reliable local supplies.

Recommendations are premature

While the recommendations include many actions that would generally be viewed as beneficial, we have a number of concerns. For example, Recommendation 1a states that the legislature should "establish targets and goals in statute," but the targets proposed in the Plan are based on admittedly limited data sets. The Plan should not propose that the Legislature enact targets that admittedly are based on inadequate data, nor should we expect that the legislature can improve on the targets using the same limited data.

There is concern that while the conservation targets may be required of urban water suppliers, some of the actions rely on the state government for implementation. In light of the current state financial crisis, actions such as water efficient landscapes at state-owned buildings, standards for efficient clothes washers, and funding for installation of water meters and other grants may not come to fruition. While the Plan proposes there be consequences for noncompliant water suppliers, what will guarantee that the state will uphold its commitments to successfully implementing the Plan?

The Plan states (page 11), "the analyses...should be treated as initial estimates, based on the best available information. An important step...will be to standardize and improve the data collection process." This should perhaps be the primary focus of the Plan; how to improve the estimates. In light of these statements, it might be considered premature to list the inclusion of targets in legislation as the first recommendation.

The plan identifies, "competition for IRWM funds by proponents of water management strategies other than efficiency improvements," as a barrier to implementation. The IRWM program identifies myriad eligible projects types, all of which are important. If this plan is dependent on focusing a major portion of IRWM funds to conservation then it may undermine the IRWM program to achieve a statewide goal at the expense of local and regional water supply, water quality, and environmental stewardship needs. The premise of IRWM, and of the state's water policy, is that a toolbox approach that improves regional self-sufficiency is desired. Therefore, regions, rather than the state, should identify the portion of IRWM funds that should be dedicated to conservation programs as well as the role of conservation in meeting local and regional needs.

A number of criteria are identified for developing legislation (page 30). We have serious concerns with many of them.

- "All water suppliers should be treated consistently, and targets should be equitable." - These two objectives may be mutually exclusive. In theory, the 20x2020 Plan attempted to treat regions consistently, yet an inequitable set of targets resulted.

- "The approach to target setting should be as simple as possible." – We agree to some degree in that the 20x2020 target should stay focused on the Delta-solution, and targets should be based on net water usage from the Delta watershed. Because of a lack of data, however, the draft Plan proposes an overly simplistic approach that does not address the differences between regions that drive water use.

- "The target setting approach should take into account past conservation efforts by suppliers or regions." – This is true, but other efforts to be regionally self-sufficient should be considered as well. In particular, the Plan must recognize its own insight – namely that the cost-effectiveness of conservation measures in relation to other water-management tools varies dramatically among regions because the actual availability and cost of the regions' respective water supplies varies dramatically.

- "Differences in climate should be taken into account." – Agreed. Differences in land use and lifestyle should be considered as well.

- "Separate approaches are necessary for residential water use as opposed to commercial, industrial, and institutional water use." – A good observation, unfortunately, the 20x2020 plan offered no guidance on how to consider these uses, instead developing targets that lump together these very different water use sectors.

- "Some regions and water suppliers will need to achieve more conservation than others, due to varying levels of past conservation implementation." – This may be true to some extent, but the plan should recognize that many of the most aggressive conservation efforts were driven – and will continue to be driven – by the reality that different regions have different levels of local water availability and reliability. Regions should not be rewarded with lower expectations because their population growth exceeded available water supplies and they therefore implemented extraordinary conservation out of necessity. Conversely, regions that have developed reliable supplies should not be penalized

- "The legislation should establish regional targets, deadlines for compliance, as well as consequences for failure to comply." - The plan offers no insight into how individual agencies would be compared to regional targets. Just as regions vary at the statewide level, communities vary in climate, land use, and other factors within each region. In addition, it should be remembered that in areas where conservation is most needed there is a natural consequence—water shortages.

Thank you for the opportunity to comment. In light of the Plan's recognition that there could be other approaches to the problem, and that, "There are a number of uncertainties and possible inaccuracies in these data," I urge you to refrain from finalizing the 20x2020 document pending consideration of other alternatives and additional analysis. A bottom-up approach, whereby each region and water supplier identifies its planned water conservation, should be evaluated with respect to the 20x2020 goal. If you have any questions regarding these comments, please contact me at (916) 791-6936.

Cc: Senator Darrell Steinberg
Senator Dave Cox
Senator Lois Wolk

ADOPTED 05-11-2009

REGIONAL WATER AUTHORITY

POLICY PRINCIPLES ON WATER CONSERVATION AND WATER EFFICIENCY

All water users in California are mandated by the Constitution to put water to reasonable and beneficial use. Water providers in the Sacramento region recognize the need for all urban water users to use water wisely and efficiently, as well as the need for some regions and water suppliers to conserve water more aggressively to improve their water supply reliability and prepare for potential shortages. The Regional Water Authority, which represents 22 municipal and industrial water suppliers and affiliated agencies in the Sacramento region that serve more than a million people, urges that the following principles be incorporated into California's water conservation and water use efficiency policies and legislation.

Promote Regional Self-Sufficiency

- Water conservation and water use efficiency programs are just a subset of water management tools supporting self-sufficiency. The Sacramento region has implemented a number of water management strategies to become a prime example of the concept of regional self-sufficiency that is promoted in state water policy.

- The need for improvement in water supply reliability for a given water supplier or region must be a primary consideration in determining an appropriate level of water use efficiency improvement.

- Assurances in California law (e.g., Water Code section 1011) that conserved water will benefit the conserving water rights holder must be fully recognized. State policy should re-affirm that water use efficiency and water conservation actions will preserve, rather than diminish water rights.

Local and Regional Implementation

- Water efficiency and conservation programs will be most effective when planned and implemented at local and regional levels as a part of a comprehensive, integrated water management strategy (i.e., a "bottom-up" rather than "top-down" approach). The role of water conservation in achieving local and regional water supply reliability cannot be evaluated independently of other management actions.

- RWA supports the Governor's call for a reduction in per capita urban water use by 2020 as a needed goal to promote action. However, a specific percentage reduction for any agency or region should be identified at the local or regional level, based on local or regional needs and conditions.

One Size Does Not Fit All

- Any approach that seeks to identify specific water use targets must reflect the unique climate, land use, and quality of life of a given area, and must reflect the economic importance of commercial, institutional, and industrial uses of water. Any approach that is founded on statewide average water use lacks this awareness of regional differences.

- Any portion of urban water use that returns to the hydrologic region from which it originated should be reflected as a credit in meeting any quantitative water use requirements, thereby recognizing the difference between local and regional uses of water and those that irretrievably export water from a region. The "net" water use from a region should be the basis for comparison of water use in different parts of the state.

- The significant investments of some water suppliers and regions in measures to improve water supply reliability, including recycled water, conjunctive use of surface water and groundwater, water conservation, use of remediated groundwater, and local storage must be taken into account when considering future water conservation requirements.

- Dependence on water imported from another hydrologic region requires, in some cases, greatly increased energy use and potential greenhouse gas emissions, as well as higher economic costs, and may result in greater environmental impacts and increased water supply uncertainty.

Costs and Benefits Must Be Proportionate

- More efficient water use by some water suppliers and their customers will result in benefits to other water users or the environment, in addition to the local benefit. The beneficiaries of such additional water conservation should share proportionately in the costs. State requirements should not result in the local costs of water conservation measures exceeding the local benefits, thereby redirecting economic impacts.

- Funding incentives from the state and federal government have successfully accelerated the implementation of water efficiency measures throughout the state, and this should continue to be a key tool the state uses to encourage additional reductions in water use.

- Program administration and reporting should be simple for both state agencies and urban water suppliers to manage.

Background

The issues and needs related to water use efficiency and conservation in California vary widely across the state. For example, many water users in California live in regions with limited local supplies, where water must be imported from great distances, with correspondingly high energy, economic, and environmental costs. Uncertainty of these imported supplies due to environmental constraints has resulted in reduced water supply reliability in recent years. Conversely, some parts of northern California, such as the Sacramento region, meet their needs entirely through local supplies and have expended many millions of dollars to develop and maintain water supply self-sufficiency. Much of the water used in the Sacramento region returns to local streams and rivers and benefits the environment or other water uses downstream.

The Sacramento region's Water Forum Agreement, signed in 2000, was developed with the co-equal objectives of providing reliable water supplies to the year 2030 and preserving and protecting the lower American River ecosystem. Through the Water Forum, the Sacramento region has addressed water supply reliability (including water conservation and water use efficiency) and ecosystem protection in a comprehensive and collaborative manner. Water Conservation is one of the seven elements of the Agreement. Under the Water Forum Agreement's conservation element, signatories in the Sacramento Region are implementing local and regional programs for all of the 14 CUWCC Best Management Practices.

The Regional Water Authority represents 22 water purveyor and affiliated agency members in Sacramento, Placer, El Dorado, and Yolo Counties.