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Felicia Marcus Chair, State Water Resources Control Board P.O. Box 100 Sacramento, CA 95812-0100

Re: Comments on Groundwater Workplan Concept Paper

Dear Chairwoman Marcus:

January 3, 2014

On behalf of the Groundwater Resources Association of California (GRA), thank you very much for the opportunity to meet with your staff Caren Trgocvich and Eric Oppenheimer on December 12th to provide feedback on the Groundwater Workplan Concept Paper Discussion Draft (Workplan). This letter serves to formalize GRA's comments delivered in person on December 12th. GRA's membership includes over one thousand groundwater professionals located throughout California with technical and legal expertise in all aspects of groundwater management. GRA would like to offer comments in the following general categories:

- Enhanced Education on Water and Groundwater
- Groundwater Data and Information Dissemination
- Basins Subject to Critical Conditions of Overdraft
- Local Control over Centralized Groundwater Management
- Incentivize and Reward Good Groundwater Management
- Solutions Will Take Decades and Will Require State Assistance
- Groundwater Cleanup for Groundwater Supply
- Groundwater has been Underfunded By State Programs and Grants
- Prerequisite for Clarity in Water Board Authority and Water Rights
- Essential to Integrate State Mandates and Policies
- Need for a State Groundwater Committee

Enhanced Education on Water and Groundwater – Water is critically important to California's economy and everyone needs a safe, reliable supply of water for drinking, sanitation, irrigation, and other beneficial uses. Yet most citizens have little if any idea of where their water comes from, what steps are needed to protect and conserve water in California, and how important water is not only for human health but for the state economy. The State should take a lead role in completely overhauling education of the public on water issues and groundwater resources management and protection. This should include setting teaching standards for K-12 so that future citizens fully understand the origin and nature of their water supply.

Rural areas are particularly important in terms of education, where groundwater is generally the sole source of supply. Education on rural groundwater should include the importance of regular testing of water quality, groundwater resource protection and the need to properly destroy wells that have met their useful life and are being replaced.

Felicia Marcus, Chair January 3, 2014 Page 2 of 5

Groundwater Data and Information Dissemination – The State should set flexible standards for the collection, management, quality assurance, and reporting of hydrologic tabular and spatial data. A State Water Resources Control Board (Board) focus in the Workplan should be that GeoTracker and the California Statewide Groundwater Elevation Monitoring (CASGEM) need to be integrated to combine water quality with levels. This integration should also take into account local groundwater monitoring programs and avoiding redundancy and extra burdening of local groundwater agencies that are already collecting and reporting data. The State needs to move towards web portals to access and share all kinds of groundwater data. The National Ground Water Monitoring Network (http://cida.usgs.gov/ngwmn/index.jsp) provides some helpful information on how data from different federal and state databases can be accessed and displayed online in one place.

The elements listed in section 2, item 2 of the Workplan seem overly simplistic, especially with regards to data requirements for adequate groundwater management. The elements should include a basin assessment, groundwater extraction inventory, meteorological assessment, land use analysis, and remote sensing data, to name a few. Many basins, especially high-use basins, need a groundwater model for effective groundwater management. The diagram provided is also overly simplistic and should be revised to capture more of the relevant system components.

While many basins are well managed and have adequate groundwater data, many other basins lack adequate data of sufficient quality to meet local management needs. It would be useful to work with local agencies and assess data gaps and data needs in order to prioritize basins for local assistance to help fill those gaps. Additionally, well drillers' logs, which contain critical hydrogeologic information collected during well drilling and construction, still remain unavailable due to arcane statutes not present in other states. GRA recognizes the conflict between well location information and homeland security, which also needs to be resolved as part of the issue of making groundwater data available and transparent.

Basins Subject to Critical Conditions of Overdraft – GRA members are concerned with using and references to the California Department of Water Resources' (DWR) 1980 list of basins in critical overdraft (section 3). In DWR's Bulletin 118-80, January 1980, the definition of basins subject to critical conditions of overdraft is:

"A basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts."

This is a subjective term and definition; the basins listed in overdraft were a result of public hearings across the state, so listing was based on politics and not strictly science. DWR should update the list of basins undergoing chronic groundwater level declines or "depletion," based on hydrogeologic data rather than politics. DWR will publish a new groundwater volume called California's Groundwater as part of the California Water Plan Update 2013 due to be released in spring 2014, which may contain more recent information on groundwater basins with declining water levels.

GRA strongly supports obtaining more data on groundwater for all basins that are under moderate use and believes that the CASGEM prioritization of basins and subbasins should be used as a foundation for any focus on groundwater in the state.

Local Control Over Centralized Groundwater Management – A number of GRA members felt that the draft Workplan represents a significant improvement over past Board perspectives on the importance of local groundwater management as opposed to centralized, state regulation. Not surprisingly, some felt that

Felicia Marcus, Chair January 3, 2014 Page 3 of 5

the draft still presented a somewhat negative connotation on this subject (e.g., item 2, paragraph 1: "...groundwater management has largely evolved on an as needed basis in a *decentralized* manner across the State. *In spite of this...*"). You may wish to consider revising the document to be very clear on the core perspective (as we understand it) that fundamentally different actions are needed in areas where groundwater managers are – or are not – actively working to protect groundwater. GRA strongly believes that comprehensive, effective management of groundwater is not only possible but enhanced through local control.

GRA believes that the Workplan appropriately highlights the fact that local conditions are unique which is one why a "one-size-fits-all" approach to groundwater management or regulation will not work. The Workplan should consistently acknowledge that local and regional groundwater management entities are the responsible agencies. Correspondingly, the Workplan should focus on how the Board can assist these entities in accomplishing their mission. In addition, the Workplan should provide definitions for "local" and "regional" management.

In item 1 of the Workplan, it is stated:

"We envision a future where well-equipped local and regional groundwater management entities use monitoring information and thresholds to manage and maintain groundwater of sufficient quality at sustainable levels over the long-term; and where local and regional management efforts are backed-up by State support and oversight, where needed."

The Workplan should clarify what the Board means by "State support and oversight."

Incentivize and Reward Good Groundwater Management – GRA believes the Workplan should clarify the approaches and actions that the Board may take in cases where current management and control efforts are protecting groundwater resources and where they are not. Such an approach could incentivize recalcitrant parties by setting a clear threshold for the "carrot" vs. "stick" approach by the Board. This could include streamlining permitting of water and groundwater projects, such as groundwater recharge and groundwater banking projects. This would allow the Board to be more creative in working with progressive groundwater managers to protect and expand the use of groundwater resources. The Board could be an agent of positive change, catalyzing action in many basins where the local agency knows what needs to be done but politically, is unwilling to do so, unless an authority directs the local stakeholders that this is what must be done.

Solutions Will Take Decades and Will Require State Assistance – A number of basins are in a state of chronic, decadal groundwater depletion with no solution in sight. Many of these same basins are short on supplies due to Delta constraints and climate change, which appears to have resulted in drier years over the past few decades. Additionally, the combined state and federal system of reservoirs and conveyance was designed based on previous hydrology, which was wetter, meaning more water was available to move through the system and south of the Delta. In short, many of these basins have gotten into the current state they are in due to a series of events over a long period of time. It will take decades for any management measures to effectively turn things around and move towards a balanced water budget, which is a moving target due to climate change and land use conditions. The State should assist by assessing statewide wet and dry year water availability, statewide recharge and storage options along with water demands in excess of supplies. The State can do more to reexamine the statewide system, explore additional opportunities to recharge and store groundwater, and look beyond meeting demands and timing with existing surface water storage and supplies.

Felicia Marcus, Chair January 3, 2014 Page 4 of 5

Groundwater Cleanup for Groundwater Supply – In many areas of the state, the need for expanding groundwater supply is outpacing groundwater cleanups to the extent that water purveyors are actively involved where responsible parties are unwilling to pay for cleanups while contaminant plumes continue to expand. Recognition of the various challenges and funding models out there for groundwater contaminant site cleanup, and how the Board can assist in moving cleanups forward at a faster pace where plumes are continuing to expand should be a high priority.

Groundwater Has Been Underfunded By State Programs and Grants – It should be noted in the Workplan that groundwater historically has not received the same level of state funding that has been made available for export facilities. Indeed, one of the reasons that groundwater hasn't been developed or managed in some areas is because imported water is (or is believed to be) less expensive. More emphasis of this point might help new legislators understand why it is so important to support groundwater in new bond measures. GRA also believes that it is important to emphasize that water customers/ratepayers should pay the vast majority of costs associated with groundwater management – and that it is important that those investments and the burden they place on ratepayers be acknowledged.

Prerequisite for Clarity in Water Board Authority and Water Rights – The Workplan states that "... the State Water Board has broad constitutional authority to prevent the waste and unreasonable use of the State's water resources (including groundwater)." While this statement is accurate, it raises the question as to the intent behind the statement. Is the Board signaling its intent to exercise this authority to regulate the use of groundwater for specific types of uses it deems to be wasteful or unreasonable? GRA recommends including a statement to clarify whether the Workplan is intended to expand the Board's existing jurisdiction. The Workplan will be more effective if it explains the Board's intentions. It is GRA's position that the Workplan should focus on potential Board actions that are well within its authority and responsibilities, such as the proactive approach of assisting groundwater management entities in groundwater basins that would benefit most from State technical and financial assistance.

GRA believes the Workplan should also include a discussion of water rights and how that subject is related to other key issues from a regulatory and public trust perspective.

Essential to Integrate State Mandates and Policies – The Board and other state agencies need to better integrate their separate programs by identifying overlaps, barriers, and opportunities for leveraging resources and taking collaborative approaches to their efforts (such as developing joint plans). For example, the Workplan should consider integrating the California Water Action Plan and the California Water Plan Update 2013, which includes a groundwater volume. Federal agencies, such as the USGS, should be considered as partners for further collaborations on groundwater science as a foundation for management decisions, following in the excellent tradition of the Board's GAMA program.

Need for a State Groundwater Committee – The Workplan states in item 3.5.1.3 that a potential Board action is the establishment of an Interagency Task Force "to improve the integration of agency authorities that could be used to address groundwater overdraft." GRA members suggest focusing not only on overdraft but also on groundwater management issues in general. The Administration should establish a State Groundwater Committee made of state and local agencies, NGOs and other groundwater experts to help prioritize a wide variety of growing issues and challenges. California faces many challenges in the groundwater arena that will require innovation, collaboration, and entrepreneurial approaches to solve. Some of the key elements to consider as a scope for a new groundwater committee could include:

- Identification of the key groundwater challenges in the next 50 -100 years
- Identification of objectives for the future of California's groundwater

Felicia Marcus, Chair January 3, 2014 Page 5 of 5

- Adoption of flexible data collection, management and reporting standards
- Design of web portals to serve and make data accessible from multiple databases
- Identification of barriers and solutions to better address groundwater contamination
- Identification of best management practices in groundwater basins including:
 - Key elements of a groundwater management plan incorporating baseline hydrology, basin management objectives, management components to meet objectives, periodic plan review and progress reporting and updating, and stakeholder involvement
 - Monitoring groundwater levels and quality, surface water-groundwater interaction, groundwater extraction, land surface subsidence, hydrometeorology, land use
 - Development of water budgets and addressing data gaps and uncertainty
 - Application of models including groundwater flow and transport models and integrated surface water-groundwater models
 - Institutional approaches and tools to address chronic groundwater depletion
 - Assessment of funding needs and long-term options for financing groundwater management programs including local fees and assessments and other funding options
 - Requiring a groundwater protection element in land use planning that systematically assesses
 potential impacts from loss of recharge, contamination, salt loading, impacts from increased
 water demand, etc. (current EIR groundwater analyses are highly variable and would benefit
 from standardization).

Thank you for the opportunity to provide these comments on the Workplan. Please do not hesitate to contact me if you have any questions.

Sincerely,

Timothy K. Parker

Chairman, GRA Legislative Committee

cc: Caren Trgovcich, Chief Deputy Director, State Water Board
Eric Oppenheimer, Director, State Water Board Office of Research, Planning and Performance
GRA Board of Directors and Legislative Committee