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California State Senate
Committee on Natural Resources and Water
Oversight Hearing on Groundwater
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Distinguished Members of the Senate:

I am a Project Director at the California Water Institute at Fresno State. I have been working in the water industry for over forty years.

One project I have been working on recently is the development of a groundwater management ordinance in Stanislaus County. An article in the Modesto Bee about groundwater in the County apparently came to your attention and resulted in my appearance today. I am here to tell you about the process hinted at in the article(s) and the relevance of the effort to groundwater management.

During the current drought crisis, groundwater will be the primary source of water for many water users in the State of California. Groundwater will be especially important in the agricultural areas of the Central Valley and in particular the San Joaquin Valley. On average, groundwater provides slightly more than 40% of all the water used in the San Joaquin Valley, but in a historically dry year like this one, it will obviously be much higher. I will not venture a guess how high. The combination of this drought and the basic understanding of the cumulative conditions and trends in groundwater use have brought forth two questions. What is the current state of the management of this valuable resource and what additional management options, if any, need to be exercised to protect the long-term viability of groundwater? That is exactly the questions that have been raised in Stanislaus County. The following is a summary of the efforts to address the questions.

Stanislaus County executive leadership began a process of developing a groundwater ordinance about five years ago. The original design was modeled after a composite version suggested by the Department of Water Resources with adaptations for the local County circumstances. Twenty-nine other counties have adopted such ordinances. The ordinance was fundamentally opposed by the established water agencies in the County and the draft ordinance languished for almost four years. One specific thing changed the dynamic during the fourth year of the effort; a specific proposal to transfer groundwater out of the County came to light and re-ignited discussion about an ordinance. As a result of that proposal the County re-invigorated the ordinance process in the latter part of that fourth year. The ordinance was still met with strong water community resistance because the new drafts were just as problematic as previous versions because it appeared to encompass more than prohibiting groundwater exports but surface water exports as well. An additional issue presented by the water community and impacted citizens was that a groundwater matter of more concern to them was extraction of

groundwater in County areas that had only relatively recently come under large-scale irrigation, changing what was previously rangeland to permanent crops.

Leadership at the Board of Supervisors decided to take a time out, step back and assess how to move forward. A key decision of that deliberation was to develop a consensus-driven process for groundwater management and to commit the County as not only a convener but a partner in groundwater management, rather than just use its authority to adopt an ordinance. The water partners in the County (cities and water districts) agreed to the re-set.

The County sent new invitations to a work group that included broad representation from the water and agricultural community, including County areas with no and somewhat limited local water management agencies. I believe it is important to note that the County represents all the individual well pumpers in unincorporated areas over the contiguous groundwater basins within the County boundaries who have not had representation but also may not know the law of correlative rights and hence their responsibilities to a shared resource. This updated group then began to systematically lay out the issues and discuss why the latest version of a County ordinance was not going to work. During these sessions the water community also presented information about their existing State-law-authorized management organizations (AB3030/SB1938 compliant) and the management programs for groundwater in the areas of their jurisdiction. In response to those presentations, the County representatives re-committed to joining such efforts and represent the unincorporated areas accordingly. The County also maintained its position that it needed to adopt an ordinance to protect the citizens of Stanislaus County.

The above discussions framed the opportunity to develop a revised ordinance. The first version attempted to salvage the previous effort. It again was turned down as too flawed to be workable. The next construction was completely new and reduced the points to reflect the common core that had been discussed. The new draft brought the County's efforts to bear on the un-districted, unincorporated areas. In contrast, the areas already covered with approved and fully functional groundwater management plans would not be regulated by the ordinance. However, the County, in their partnership role, proposed to be vigilant and observe as to whether the existing plans were in compliance with State law and implemented to meet their intended goals and objectives. This new draft was met by tacit approval of the ad-hoc group with one notable exception. The water community believed that because of the groundwater impacts of new land coming under irrigation over which they had no control their efforts to meet their own goals could be thwarted. They therefore suggested an additional provision to the ordinance. They proposed that not only groundwater exports out of the County be regulated, but that excessive withdrawals of groundwater that could be defined as "mining"¹ of groundwater within the County, also be prohibited. The prohibition is not "de-facto" but "without a permit". In other words, someone could export groundwater or withdraw groundwater beyond a customary standard if the County offers a permit that, after the appropriate review, has found it is not against the law or the public interest.

The ordinance with the above major provisions, export and mining prohibitions without a permit were approved by the Board of Supervisors in October 2013. It is worth re-emphasizing that Stanislaus County

¹ The definition of "mining" in the ordinance is undergoing review at the request of the water agencies and other experts to make sure the activities proposed for regulation are clear and unambiguous. The County agreed to a review of that portion of the ordinance.

is the 30th County to adopt a groundwater management ordinance but the first to propose to regulate mining or unsustainable overdraft within the areas of their jurisdiction. A copy of the ordinance is attached for your review.

The Stanislaus County ordinance then leads us to acknowledge the question about the progression of management and controls from local to regional and then potential State intervention to protect groundwater resources for the future. How does this effort fit into the progression?

The first acknowledgement of potential County participation in the progression is that they have police powers that can be brought to bear on groundwater within their boundaries that has been fully affirmed in the court (Tehama v Baldwin).

The second acknowledgement is that under the Porter-Cologne Water Quality Control Act, the permitting of construction of all wells, especially water wells, has been granted to counties (and cities) as long as their regulations and permit conditions comply with State standards as promulgated by the Department of Water Resources in their Bulletin 74 series. In most areas of the State the counties are therefore the main gatekeeper to the extraction of groundwater and the permits to do so and the permits could be designed so as provide important information about components of groundwater management.

The third important acknowledgement is that counties are the principal land use authorities in the State. While they are guided by State law and must find workable arrangements with cities, they nonetheless are responsible for most of the open space in their jurisdictions except for State and federal lands. They therefore have the ability to manage important aspects of groundwater including land use over recharge areas and the proper siting and controls on “conditional use” activities that can impact groundwater supplies or quality. Even though agricultural land uses are “by-right” in most counties the future could be managed or changed by the need to protect groundwater. By example, the entrance of Stanislaus County into groundwater management planning in their “partnership” can offer the opportunity to resolve the areas of alleged excessive withdrawals by developing groundwater banking agreements on land operators behalf, participate in future surface water supply conservation or augmentation efforts, or if all else fails in a very groundwater limited area, add new conditional land use permitting that requires showing a potential change in open land from non-irrigated to irrigated has a sustainable supply with extraction rates that do not adversely impact others.

In summary, counties could be a critical part in the progression of groundwater management and the recent experience in Stanislaus County provides some illumination for potentially improving the institutional process, even though it is not mature yet. A critical piece of the effort in Stanislaus County that needs to be emphasized is the role to act as both convener and partner in groundwater management planning as well as a backstop with police power for regulation.

It is important to note that there are county-wide water management agencies represented here today where the Board of Supervisors is the executive Board of the agency or part of the executive Board. These may have already integrated the functions above, especially those that are empowered as “legislated special districts”. The above may not apply to them.

Finally, I would be remiss if I did not acknowledge the most recent Modesto Bee article on water management in Stanislaus County. I was quoted again as part of that article and believe it is important to understand the scope of the discussion that resulted in the quotes.

Water lexicon and operations are riddled with complexity. In explaining “conjunctive use”, federal contract water and how irrigation districts make their operations decisions to the Modesto Bee reporter, I may not have imparted enough of the context and complexity to make myself clear. An important concept I was trying frame was that by having the County involved as a partner in water matters many of the current water management practices and transactions (outside sales) could be more universally evaluated as to how they would impact regional groundwater collectively. I further explained that water agency activities such as surface water transfers and groundwater extraction for meeting peak (high) or minimum use demands are all tools to effectively manage water supplies. Most of the transfers of surface water out of the County noted in the article are imported water from the Central Valley Project Delta pumps, not from the watersheds that are part of the County. The out of the County water transfers from local watersheds and irrigation districts primarily occur in wet years or are derived from conserved water after significant infrastructure investments at the farm and district level. The opportunity to transfer conserved water was granted through State law without any requirement to assess the impact on local groundwater. Furthermore, the County areas with significant decline in groundwater levels have little or no surface water and are marginally capable of recharge. Even the new ordinance, as previously mentioned, has the capacity to allow (permit) temporary impacts to the County’s groundwater if a compelling reason appears, a catastrophic need that perhaps rises above even today’s drought crisis.

I also mentioned to the reporter that when I managed a water district I did many of the same things currently described in the article; pumped groundwater, used rights water as required and sold federal contract water in certain water year-types and re-invested any financial gains into the district delivery systems to gain additional efficiency. My point was that the potential new joint institutional arrangements in Stanislaus County would actually serve the water industry well because what heretofore were likely independent events, would now have the ability to be placed in context with all the related events so as to better understand their composite value or impact to the County, its groundwater, the region or the State as a whole.

Thank you for the opportunity to speak to you today.

Attachment: Stanislaus County Groundwater Mining and Export Prevention Ordinance

Stanislaus County Code

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Title 9 HEALTH AND SAFETY**Chapter 9.37 GROUNDWATER MINING AND EXPORT PREVENTION****9.37.010 Title.**

The ordinance codified in this chapter may be cited as the "Groundwater Mining and Export Prevention Ordinance of Stanislaus County." (Ord. CS 1138 §1, 2013).

9.37.020 Findings.

The Stanislaus County board of supervisors hereby finds:

1. The protection of the health, welfare, and safety of the residents of the county require that the groundwater resources of Stanislaus County be protected from adverse impacts resulting from the specific acts of mining groundwater resources within the county and the export of water outside of the county; and
2. Groundwater is an essential resource for continued agricultural production within the county which production includes, but is not limited to, field crops, nut and fruit crops, vegetable crops, seed crops, poultry and livestock and products which significantly contribute to the gross value of the total agricultural production of the county; and
3. Groundwater is an essential resource for municipal, industrial and domestic uses within the county; and
4. The mining of groundwater resources from within the county and the export of water outside of the county could each have adverse environmental impacts on the county, including but not limited to; increased groundwater overdraft, land subsidence, uncontrolled movement of inferior quality groundwater, the lowering of groundwater levels, increased groundwater degradation; and
5. The mining of groundwater resources from within the county and the export of water outside of the county could each have adverse economic impacts on the county, including but not limited to, loss of arable land, a decline in property values, increased pumping costs due to the lowering of groundwater levels, increased groundwater quality treatment costs, replacement of wells due to declining groundwater levels, replacement of damaged wells, conveyance infrastructure, roads, bridges and other appurtenances, structures or facilities due to land subsidence; and
6. California Constitution, Article X, Section 2, as well as Water Code Section 100 prohibit the waste, unreasonable use, unreasonable method of use, and unreasonable method of diversion of water. The county finds that the mining of groundwater and the export of water outside of the county are presumptively unsustainable uses of groundwater and not reasonable or beneficial uses to the citizens of Stanislaus County and, therefore, the mining of groundwater and the export of water from the county are presumptively inconsistent with the California Constitution and the California Water Code. (Ord. CS 1138 §1, 2013).

9.37.030 Definitions.

The following words and phrases shall have the following meanings when used in this chapter:

1. "County" means the county of Stanislaus.
2. "Board" means the board of supervisors of Stanislaus County.

3. "Person" means and includes natural persons, corporations, firms, partnerships, joint stock companies, associations and other organizations of persons, and public entities.

4. "Groundwater" means water that occurs beneath the land surface and fills the pore spaces of the alluvium, soil or rock formation in which it is situated.

5. "Public water agency" means any local public agency, mutual water company, or nonprofit tax-exempt unincorporated association within, or partially within, Stanislaus County that has authority to undertake water-related activities.

6. "Mining" means the extraction of groundwater in a manner that constitutes a waste, unreasonable use, or unreasonable method of use within the county, as interpreted under California law.

7. "Export of water" means the act of conveying groundwater, or surface water substituted with groundwater, out of the county. (Ord. CS 1138 §1, 2013).

9.37.040 Prohibition.

Except as otherwise provided in this chapter, the following actions are prohibited:

- A. The mining of groundwater within the unincorporated areas of the county.
- B. The export of water. (Ord. CS 1138 §1, 2013).

9.37.050 Exemptions.

A. The following water management practices are exempt from the prohibitions in this chapter:

1. Water resources management practices of public water agencies that have jurisdictional authority within the county that are in compliance with and included in groundwater management plans adopted by that agency in accordance with applicable state law and regulations, including but not limited to the California Groundwater Management Act (Water Code Sections 10750 et seq.).

2. Water wells delivering one hundred gallons per minute or less to uses and property under the same ownership where the well is located.

3. Groundwater mining and the export of water done in compliance with a permit issued by the Stanislaus County department of environmental resources pursuant to this chapter.

B. The following water management practices are exempt from the prohibition against export of water in this chapter:

1. De-watering of shallow water tables where the net benefits of the removal of subsurface water substantially outweighs the loss of water because of damage the high water table reasonably may cause to agriculture, industry, commerce and other property uses. The groundwater in some areas of the county is very near the surface and if not removed by interceptor ditches or subsurface tile drains, the water can seriously impact crop root zones for agricultural production or destroy foundations, equipment, materials, buildings and infrastructure used for residences, industry, utilities or commerce. This groundwater may or may not be reused for other purposes and at times may leave the county and its groundwater system.

2. Reasonable use of groundwater resources to supplement or replace surface water released for other reasonable and beneficial purposes, including but not limited to fisheries, ecosystem habitat or downstream water quality or quantity needs, when required pursuant to federal and state law, regulations, licenses or permit conditions.

3. Conservation of water in compliance with applicable state law that authorizes public water agencies to transfer water outside its usual place of use. Conservation investments may include, but are not limited to,

irrigation practices in agricultural areas where the crops grown use less water, or communities that produce recycled water, fix leaks or promote other water saving devices and methods to conserve water on a temporary or permanent basis.

4. Recharge of groundwater in locations in the county that are capable of improving groundwater conditions in order to meet total water demands of beneficial uses in the hydrologic and groundwater basin area including but not limited to the following sources: surface water, treated municipal drinking water, recycled water and stormwater. The amount of recaptured groundwater transferred out of the area should not exceed the amount of water used to recharge the aquifer. The transfer can be accomplished by either direct or indirect transfer, that is, a public water agency can leave the water in the ground and transfer other supplies in lieu of pumping out the recharge water.

5. Remediation of contaminated groundwater that is pumped and treated to remove contaminants that are in violation of standards for beneficial uses. The extracted and treated water may be released out of the county, resulting in a net loss to the groundwater basin, if the release complies with discharge permits issued by the federal, state or state resource agencies.

6. Export of water that reasonably supports agricultural operations on property outside the county that is contiguous with property within the county and is under common ownership.

7. Export of water from a private water source that is bottled in compliance with a private water source operator license issued by the state pursuant to Health and Safety Code Section 111120. (Ord. CS 1138 §1, 2013).

9.37.060 Implementation.

A. The Stanislaus County department of environmental resources shall have the primary responsibility for implementation of this chapter and regulations adopted by the board of supervisors.

B. The department of environmental resources shall establish a system of permits to authorize water management practices otherwise prohibited by this chapter. The department may issue a permit for a water management practice to the extent that such practice is consistent with the statements of county policy set forth in Section 9.37.020 of this chapter.

C. The department of environmental resources shall have authority to investigate any activity subject to this chapter. Compliance with this chapter will be determined based on the submission of a technical report submitted to the department of environmental resources on a form provided by the county. The department is authorized to enforce the prohibition of any activity that is determined to be in violation of this chapter or regulations adopted by the board of supervisors.

D. The applicant, permit holder or other interested person or entity may appeal an administrative determination made by the department under this chapter which (1) finds that an application is complete or incomplete; (2) establishes or modifies operating conditions; (3) grants or denies a permit; or (4) suspends or revokes a permit. Administrative appeals under this section must be made in writing, must clearly set forth the reasons why the appeal ought to be granted, and must be received by the chief executive officer within fifteen days of the postmark date on the envelope that transmits the administrative determination. Any appeal that is not timely filed, or that is not accompanied by the required fee, will be deemed ineffective and the administrative determination that is being appealed will become final. The chief executive officer shall fix a reasonable time for the hearing of an appeal of an administrative determination, and shall provide written notice of the appeal hearing to the appellant and all interested parties, and to all landowners within one-quarter mile of the parcel where operations will occur. An appeal review committee comprised of the chief executive officer or designee, the chairman and vice chairman of the board of supervisors shall hear the appeal and issue a decision within thirty days after the hearing. The appeal review committee may take any appropriate action upon the original

administrative action that was appealed, including granting or denying the appeal in whole or in part, or imposing, deleting or modifying operating conditions of the permit. The decision of the appeal review committee shall be final. (Ord. CS 1138 §1, 2013).

9.37.070 Penalty for violation.

A. Any person violating any of the provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished as set forth in Stanislaus County Code Section 1.36.010. Each person shall be guilty of a separate offense for each and every day during any portion of which any violation of any provision of this chapter is committed, continued or allowed and shall be punishable accordingly.

B. In addition to or in lieu of the penalty provisions or remedies set forth in this chapter, any violation may be abated in any manner set forth in Chapter 2.92 of the Stanislaus County Code, including, but not limited to, abatement or issuance of administrative citations.

C. In addition to or in lieu of the penalty provisions or remedies set forth in this chapter, any violation of any of the provisions of this chapter, and any condition caused or allowed to exist in violation of any of the provisions of this chapter, shall be deemed a public nuisance and shall, at the discretion of county, create a cause of action for injunctive relief, including but not limited to any remedy under Chapter 5 (commencing with Section 17200) of Part 2 of Division 7 of the Business and Professions Code. (Ord. CS 1138 §1, 2013).

9.37.080 Severability and effect.

A. The provisions of this chapter are hereby declared to be severable. If any provision, clause, word, sentence or paragraph of this chapter or the application thereof to any person, establishment or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter.

B. The prohibitions of this chapter shall not be applicable to the extent that their application would result in a violation of the Constitution or other laws of the United States or the state of California. The department of environmental resources shall issue a permit to authorize conduct otherwise prohibited under this chapter if the applicant demonstrates that such permit is necessary to avoid such a violation of state or federal law. (Ord. CS 1138 §1, 2013).