



September 9, 2019

Steve McIntyre, Chairperson
Members of the Board of Directors
Salinas Valley Basin Groundwater Sustainability Agency
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Subject: Comments on Groundwater Sustainability Plan (GSP) 180/400-foot Chapter 9
Projects and Management Actions

Dear Chair McIntyre and Members of the Board of Directors:

LandWatch appreciates the opportunity to comment on the 180/400-Foot Subbasin
Groundwater Sustainability Plan, Chapter 9, Projects and Management Actions.

Summary of comments

LandWatch supports the conceptual Water Charges Framework, although much work remains to implement it. However, to attain sustainability the Salinas Valley Basin Groundwater Sustainability Agency (SVGBGSA) cannot rely on voluntary pumping reductions in response to water charges. The SVGBGSA does not currently have the information to set water charges at a level that would ensure demand does not exceed available supply. This would require knowing (1) the sustainable yield, (2) the cost, timing, and financing of new water projects sufficient to meet demand, and (3) the elasticity of demand, i.e., the total amount of new water supplies users would be willing to buy at the marginal price per acre-foot.

Instead, the SVGBGSA should limit water use in the 180/400-Foot Aquifer Subbasin by ordinance. The ordinance should allocate to users the total sustainable yield, as conservatively estimated today, plus the new water made available by specific Management Actions and Projects. That new water should only be allocated to users when it actually becomes available. There are various equitable methods to allocate newly produced water (e.g., auction, assignment by formula, with or without a secondary market). Regardless of the method chosen to allocate newly produced water, the SVGBGSA must ensure that total pumping does not exceed current sustainable yield plus the total of newly produced water.

The Water Charges Framework must be based on groundwater pumping, not on acreage. What matters in attaining sustainability is actual groundwater pumping, which

should be measured through an enforceable ordinance requiring well registration, annual reporting, flow meters, and annual calibrations.

The proposed Transitional Allowance should be ramped down as quickly as feasible unless there is substantial evidence that a longer period is consistent with attaining sustainability by 2040. And the Transitional pumping surcharge should be based on the best estimate of future supplemental fees since that Transitional surcharge is also intended to reduce pumping and provide funds for new projects.

The Plan proposes as a Management Action that SVGBGSA supports MCWRA's Deep Aquifer study. However, because MCWRA has not had the resources to complete that study, SVGBGSA should fund and undertake the study itself. Development of this information is part of SVGBGSA's mandate under SGMA to manage the Deep Aquifer sustainably. Until this study is completed, SVGBGSA should restrict new wells; inspect existing wells to assure they are properly engineered to prevent seawater intrusion from the 180/400-foot aquifers; and decommission any well that is not so engineered.

Section 9.6 of Chapter 9 does not provide the mandated quantification of the mitigation of overdraft because it fails to quantify the benefits of Management Actions, assigns all of the Basin-wide Project benefits to the 180/400-Foot Aquifer Subbasin, double counts some benefits, and contains an arithmetic error. This must be corrected.

De minimis wells on fallowed land should be limited to only those wells needed to support the residential use that is currently permitted by right. Permitting more wells on fallowed agricultural land to support higher residential density would improperly interfere with general plan land use designations, which SGMA enjoins.

Finally, we look forward to more complete project descriptions and costs during implementation of the 180/400 Foot Subbasin GSP.

Our detailed comments follow.

- 1. The SVGBSA cannot rely on voluntary reductions to ensure sustainability because it does not have the information needed to set water prices that would limit water demand to the available supply. The SVGBGSA should initially limit pumping to sustainable yield plus transitional allowance until new water supplies are firmly in place. When new water supplies are produced, the SVGBGSA should then limit pumping to sustainable yield plus those new water supplies.**

The water charges framework is based on different fees for pumping at three different levels. It distinguishes three levels of fees:

- A "regulatory" fee for pumping a user's "sustainable pumping allowance,"
- A "surcharge" for a user's "transitional pumping allowance," where the transitional pumping allowance is based initially on current pumping and then declines to zero over a period of time, and
- A "supplementary fee" for "supplemental pumping," i.e., pumping in excess of the sustainable and transitional allowance.

This water charge framework is “designed to achieve” two objectives: “to promote voluntary pumping reductions” and “to fund water supply projects.” (Chapter 9, § 9.2.)

However, there is no evidence that the fees can be or will be set at a level that attains sustainability if pumping reductions remain voluntary. A purely voluntary scheme can only work to attain sustainability if (1) the fees are set at a level that pays for water projects that make additional water available in excess of sustainable yield (“new water”) and (2) that fee level also happens to effectively incent users to limit their cumulative pumping to an amount equal to current sustainable yield plus that new water. Setting a fee for the new supplemental water that ensures that demand equals available supply would require SVGBGSA to know the incremental cost of new water from a suite of potential Projects and Management Actions, and the elasticity of demand, and the point at which the marginal cost of new water equals its marginal benefit.

In short, voluntary reductions would not work unless the SVGBGSA has a lot more information than it can possibly generate before this plan must be implemented.

Chapter 9 admits that most of the details of the water charges framework must be deferred due to lack of information. (See section 9.2.8 for a partial list of what has been deferred.) For example, there is no estimate of costs and benefits per acre/foot of new water for some of the Management Actions. There is no allocation of the estimated benefits of the Basin-wide Management Actions and Projects to users of the 180/400-Foot Aquifer Subbasin. There is no information as to the elasticity of demand that would enable the SVGBGSA to determine what feasible Projects and Management Actions, priced to users at an equitably determined cost per acre/foot, should be implemented in order to satisfy demand. However, in a voluntary pumping reduction regime in which users remain free to pump at any level, establishing the supplementary charges for new water that would limit pumping to sustainable levels would require this cost/benefit information and a determination as to how much supplementary water users will be willing to pay for, i.e., a determination as to when the supplementary water charges will become so high that users will not be willing to pump more water.

Implementation of the water charge framework will also require critical compromises about technical matters and benefit allocation among affected parties, with vastly different interests by subbasin and by the type of user. This information will not be available by 2020 or perhaps for many years thereafter.

In sum, there is no prospect to get to an agreement, especially by 2020, on supplementary water charges that would pay for needed projects and induce users to keep total pumping within the level of sustainable yield plus new water. Even if the SVGBGSA can determine the precise cost per acre/foot of new water, it is unlikely to know the point at which the benefits and costs of that next acre-foot of new water are equal. As long as pumping reductions remain voluntary, there is a significant probability that pumping will exceed sustainable yield.

Accordingly, as a practical matter, the Plan cannot rely on voluntary pumping reductions. Instead, the SVGBGSA must restrict pumping in excess of the user's allowance of sustainable yield (plus transitional allowance) unless and until there is an actual committed, funded Management Action or Project that will deliver the new water.

When new water is produced, the SVGBGSA should continue to restrict total pumping to the total of current sustainable yield plus new water. To ensure this, when a Management Action or Project is committed and funded, the SVGBGSA should distribute the new water by selling specific allowances of the new water to users.¹

If demand for new water exceeds supply, the SVGBGSA could allocate the new water allowances through several means. For example, it could sell the new water by auction, e.g., a French auction in which the supply is sold at the lowest bid price above the cost of production that would clear the market. Alternatively, the right to purchase new water at the cost of production could be assigned to users according to some pre-determined formula, e.g. pro-rata, based on their initial allowances of the current sustainable yield.² There are other equitable ways to allocate new water. Regardless, the objective of the allocation system should be to recover at least its production cost, to dispose of all of the new water, and to prevent pumping in excess of the sustainable yield plus the amount of new water.

2. Transitional Allowances should be ramped down as quickly as feasible because there is no substantial evidence that a longer period is consistent with attaining sustainability by 2040.

The water charges framework proposes to allow "transitional" pumping in excess of sustainable yield for "10 to 15 years." (Chapter 9, § 9.2.3) Transitional pumping is apparently recent (2012-2017) actual pumping. Users would pay a "surcharge" fee for this pumping to the extent it exceeds sustainable yield.

Chapter 9 says that the transitional allowance "may" be reduced over time to get to sustainable pumping, implying that it may not be reduced and that users would not make any cuts at all, but simply continue existing overdraft pumping while waiting for water from new Projects or Management Actions. Permitting any future overdraft would increase the amount of cumulative overdraft in the 180/400 Foot Aquifer Subbasin, lowering groundwater levels and thereby inducing additional seawater intrusion. This is inconsistent with the sustainability mandate, which requires that the Plan avoid such an undesirable result and meet the measurable objectives. For example, any increase in the amount of cumulative overdraft would likely render it impossible to meet the seawater intrusion minimum threshold, which is set as the seawater intrusion line defined by MCWRA in 2017. (Chapter 8, § 8.8.1.) There is no evidence that seawater intrusion can be reversed, so if the Plan permits continued overdraft it cannot meet its adopted seawater intrusion minimum threshold.

¹ A Management Action or Project should not be deemed funded and committed until it has been approved by the implementing agency and until all needed funding is in place, including fee ordinances and Proposition 218 votes as needed.

² Users with an allowance of the existing sustainable water supply or an allowance of new water could be permitted to sell an allowance to other users. This secondary market in water allowances would ensure the water goes to the most valued use and would establish price signals that would inform SVGBGSA of users' willingness to pay for future new water supply projects.

In the absence of any evidence that a 10-15-year transition period is consistent with attaining sustainability by 2040, and considering the evidence to the contrary, the transition period should be set as the minimum feasible period to ramp down existing pumping to sustainable yield. GSP should contain a firm commitment to phase out any transitional allowance as quickly as feasible. LandWatch suggests at most a 3-5-year time frame for elimination of transitional pumping.

3. The Transitional pumping surcharge should be based on the best estimate of future supplemental fees. Supplementary allowances and supplementary fees should not be implemented until new water is developed, priced, and allocated.

Whereas in theory the "supplementary" fees for new water could (or, under Prop 218, must) be determined with reference to an engineering study that looks at costs of delivering new water and who is benefitted by it, the Plan document now provides no basis whatsoever for setting the "transitional" pumping surcharge.

According to Chapter 9, both the supplementary fees for new water and the transitional surcharge are intended to discourage pumping in excess of sustainable yield and to fund future Projects and Management Actions. Accordingly, the transitional surcharge should be set at the best current approximation of the eventual supplemental fees so that users have proper incentives immediately and funding needed for projects and management actions is collected from inception of the GSP implementation period.

For example, Section 9.4 identifies 9 priority projects with a cost per acre-foot ranging from \$90 to \$880. Based on the data in Chapter 9, if all nine projects were completed, they would cost \$49,702,000 and yield 81,600 acre-feet per year.³ The average cost per acre-foot would come to \$609. If this were the best estimate of the cost, the yield, and the need for projects to attain sustainability at the time the Plan is implemented, the SVGBGSA should set the transitional surcharge at \$609 per acre-foot.

Figure 9-1 implies that the SVGBGSA will be able to separately assess regulatory fees, the transitional surcharge, and the supplementary fees from the first year of the GSP implementation. This is highly unlikely because it would require that SVGBGSA know at the first year of GSP implementation (1) the sustainable yield, (2) the total pumping allowed under the transitional pumping allowance, and (3) the total pumping allowed for sustainable yield plus new water, i.e., the amount of new water that will be provided and the allocation of its cost.

As discussed in section 1 above, SVGBGSA will not be able to determine supplementary fees until it evaluates and engineer the Projects and Management Actions. Furthermore, users should not be permitted to pump in excess of their transitional allowance level until new water has actually been developed and allocated. It is not at all clear that SVGBGSA will be in position to price, allocate, and deliver new water in 2020. Accordingly, as a practical matter, in the initial implementation years, the water charges should be limited to regulatory fees charged for the sustainable yield allowances plus the

³ This calculation includes the \$2,552,000 cost but not the 11,600 acre-feet/year yield from Project # 5, because the Project #5 yield is already included in Projects # 2 and #3. (Chapter 9, § 9.3.6, page 50.)

surcharge fee for the transitional water allowances. The surcharge fee should be set to approximate future supplementary fees, as discussed above.

4. The Plan should not assume the Monterey County Water Resources Agency (MCWRA) will complete a Deep Aquifer study; MCWRA has no funding or authorization. Instead, SVGBGSA should fund and undertake the study because development of this information is part of SVGBGSA's mandate under SGMA.

Section 9.3.6 proposes that, as a Management Action, SVGBGSA comments on MCWRA's study of the Deep Aquifer and support and strengthen MCWRA's restrictions on additional wells in the Deep Aquifer pending the results of that study.

MCWRA does not have any funding for, or a current commitment to undertake, the Deep Aquifer study recommended by its staff in its Recommendations to Address Expansion of Seawater Intrusion in the Salinas Valley Groundwater Basin. (MCWRA, Special Reports Series 17-01, dated October 2017.) After making that recommendation, MCWRA staff held meetings with stakeholders to identify data gaps and study parameters in February 2018. Staff recommended a budget of \$1.2 to \$1.5 million for this study and sought authorization at a joint meeting of the MCWRA Directors and the County Board of Supervisors on April 2, 2018. However, in response to LandWatch's recent request, MCWRA has not produced public records demonstrating that the Deep Aquifer study has been authorized or funded.

In light of MCWRA's apparent lack of resources to conduct the Deep Aquifer study, LandWatch recommends that SVGBGSA should itself undertake it. SGMA mandates that SVGBGSA provide a hydrologic model, characterize groundwater conditions, and provide a water balance for the aquifers within the Basin, which includes the Deep Aquifer. (23 CCR §§ 354.14, 354.16, 354.18.) Chapter 6 fails to provide this information for the Deep Aquifer, which is a fundamental defect in the Plan. There is no reason to defer or delegate the development of this mandatory information to MCWRA. Indeed, SVGBGSA cannot fulfill its obligation to identify sustainable management criteria, management actions, and projects to attain sustainability for the Deep Aquifer without this information.

SVGBGSA has a clear authority to fund the Deep Aquifer study. It can and should collect fees from groundwater pumpers for this purpose pursuant to Water Code section 10730.

The best currently available scientific information indicates that any pumping in the Deep Aquifer is not sustainable. There is no recharge except in geologic time. There is also good evidence that seawater-contaminated groundwater moved into the 400-foot aquifer from the 180-foot aquifer in locations where wells and drilling weren't properly regulated. Such contamination will likely also occur in the Deep Aquifer without much better regulation and oversight. Unless and until new scientific information is available on the Deep Aquifer capacity, well construction, and seawater contamination between aquifers, SVGBGSA should restrict any new wells and develop a schedule to halt all pumping of the Deep Aquifer by 2040 when the Groundwater Sustainability Management Act requires sustainability.

5. Chapter 9 fails to provide the mandatory quantification of the mitigation of overdraft: it fails to quantify the benefits of Management Actions, assigns all of the Basin-wide Project benefits to the 180/400- Foot Aquifer Subbasin, double counts some benefits, and contains an arithmetic error.

SGMA requires that if overdraft conditions are identified in the Water Budget, the Plan must “describe projects and management actions, including a quantification of demand reduction or other methods, for the mitigation of overdraft.” (23 CCR § 354.44(b)(2).) Section 9.6 purports to provide this quantification. However, the quantification has several flaws that must be corrected.

First, Section 9.6 fails to quantify the benefits of Management Actions. The discussion in Section 9.6 and Table 9-5 address only the benefits of proposed Projects, based on the estimated quantification of benefits of each proposed Project in the discussion of projects in Section 9.4. There are no such quantified estimates of the benefits of the proposed Management Actions in Section 9.3. It is likely that the benefits of some of the proposed Management Actions could in fact be estimated. For example, the benefit of a pumping ban in the CSIP area would presumably be equal to current pumping in that area, which should be ascertainable.

Unless the SVGBGSA is prepared to supply at least a preliminary estimate of the benefits of proposed Management Actions, it is not clear that there is evidence that they would have any meaningful or reliable benefits or that there is any way to evaluate those benefits, as required by 23 CCR § 354.44(b)(5). For example, the benefits of reservoir reoperations may be too speculative to include at this point in light of the revocation of the Biological Opinion and the unfunded priority obligation for safety repairs.

At any rate, it is clear that 23 CCR § 354.44(b)(2) mandates quantification of the benefits of Projects and Management Actions.

Second, Chapter 9 states that the proposed Management Actions and Projects “constitute an integrated management program for the entire Valley,” not just the 180/400 Aquifer Subbasin. (Chapter 9, §§ 9.3.1, 9.4.3.) Despite this, Section 9.6 only discloses the overdraft for the 180/400 Aquifer Subbasin and then erroneously concludes that the mitigation proposed for the entire Valley’s overdraft is sufficient because it is greater than the overdraft in the 180/400 Foot Aquifer Subbasin.

Third, Table 5 double counts the benefits of the proposed Projects #2, 3, 4, and 5, all of which are intended to “work together to improve and expand the performance of the CSIP system” and are identified as “part of an integrated CSIP strategy.” (Chapter 9, page 31, “CSIP Projects.”). For example, the discussion of the benefits of Project # 5, Maximize Existing SRDF Diversion, states that the “estimated project yield is 11,600 AF/year. The yield for this project is the same yield that is identified in Priority Project #2 and a portion of the yield identified in Priority Project #3.” (Chapter 9, § 9.4.4.6.) Despite this, Table 9-5 lists 11,600 AF/year as additional potential yield for Project #5, over and above the yield for Projects # 2 and #3.

Fourth, Table 9-5 is not added correctly. The “total” for Table 9-5 is stated as “-58,201.” However, the sum of the elements listed in the table is 40,800 acre-feet per year of potential water available for mitigating overdraft. Eliminating the double counted 11,600 acre-feet per year for Project # 5, the total would be 29,200 AF/year.

6. De minimis wells on fallowed land should be limited to those needed to support the residential use that is currently permitted by right in order not to interfere with general plan land use designations.

Section 9.3.2 provides that the SVGBGSA be permitted to buy out agricultural pumping allowances. Any provision in its fallowing program that permits sellers who convert their land to rural residential use to retain "de-minimis wells" should be qualified to limit the de minimis wells to just those wells needed to support the existing rural residential densities permitted by right for agricultural lands under the County General Plan and Zoning Ordinance. No de minimis wells should be permitted on fallowed land to support subdivision of that land for residential use.

It is not sufficient that the plan states that land conversions must comply with the County General Plan. Sellers of water allowances who are fallowing land to convert to residential uses may seek higher residential densities through amendments to the General Plan, conditional use permits, or subdivisions. Water Code section 10726.4(a)(2) requires the SVGBGSA to respect the "land use designated in the city or county general plan." Section 10726.8 also precludes interference with city and county general plans. Monterey County's General Plan is intended to concentrate future residential development in so-called "focused growth areas," consisting of Community Areas and Rural Centers, not in land designated for agricultural use. (Monterey County General Plan, Land Use Element, Introduction, available at <https://www.co.monterey.ca.us/home/showdocument?id=45800>.)

If a fallowing program were to permit sellers to establish de minimis wells to support pumping in excess of the residential uses now permitted by right on agricultural lands, it would create an inducement for more intense residential development, in part by creating a financing mechanism for that development. Accordingly, the GSP should restrict de minimis wells to those required to support the residential densities now permitted by right for agriculturally designated land under the existing general plans.

7. Agricultural Best Management Practices (BMP) provisions are redundant.

As drafted sections 9.3.3 and 9.5.1 both call for promotion of BMP for agricultural water use. One section should be deleted.

Sincerely,



Michael DeLapa
Executive Director