NORTH COAST STREAMFLOW COALITION

September 28, 2015

David Gutierrez
Executive Program Manager, SGM Section
901 P Street
P.O. Box 942836
Sacramento, CA 94236
sent via electronic mail to: **sgmps@water.ca.gov**

Re: Comments on the development of Groundwater Sustainability Plan Regulatory Program

Dear Mr. Gutierrez

Please accept these comments on behalf of the above-listed groups, members of the NGO Groundwater Collaborative, in response to the department's discussion documents on the development of regulations to guide the development and review of Groundwater Sustainability Plans. We appreciate the time and effort spent by your staff in explaining the broad areas of regulation they are trying to cover and have provided brief general comments in response to the questions posed by staff. We thank department staff for meeting with the NGO advisory panel on four occasions.

We share the department's interest in ensuring that these regulations provide clear direction to Groundwater Sustainability Agencies while allowing them the flexibility to adaptively manage their groundwater basins. At the same time, the interconnectedness of the state's water resources mean that local groundwater sustainability is a public interest and the department has been given the responsibility to ensure that local management is adequate to protect this resource statewide.

The passage of the Sustainable Groundwater Management Act has brought great urgency to our efforts to promote sound science and greater transparency for more effective and sustainable water management. While we have an interest in many of the discussion topics presented by staff, and have provided

comments on those topics in the attached documents, we will focus our comments on aspects related to our core concerns: transparency, stakeholder engagement, and the use of sound science.

Transparency

We are concerned that none of the papers alluded to local governance and the need for transparency and inclusiveness in those governance models. The organizations in our collaborative are not local agencies as defined in the Sustainable Groundwater Management Act (SGMA or Act), but are interested parties and persons whose right to engage in the development of Groundwater Sustainability Agencies (GSAs) and Groundwater Sustainability Plans (GSPs) is specified in the Act.[i] It is incumbent upon the department to ensure that the regulations support the language and intent of the law.

Our suggestions for ensuring transparency and inclusiveness in the development and implementation of GSPs include:

- The integration of the stakeholder identification and notification requirements of the Act into the regulations;
- A separate requirement to ensure the active involvement of diverse social, cultural and economic elements of the population within the groundwater basin;
- Sufficient data in a format that allows the stakeholders and interested members of the public to understand whether the basin is being managed sustainably;
- A clear understanding of what actions or lack thereof will trigger referral to the State Board.

Stakeholder Engagement

Three of our organizations – Clean Water Fund, Community Water Center, and the Union of Concerned Scientists - have developed guidance for local GSAs on how to implement the stakeholder engagement requirements of SGMA. That report is posted on the SGMA website and submitted with these regulations. The stakeholder engagement and public involvement requirements of SGMA are not voluntary; the department must develop regulations to ensure implementation.

First and foremost, it is important to distinguish between stakeholder engagement and public involvement. SGMA recognizes the distinct nature of these two forms of outreach and so should the regulations.

Stakeholders have a specific interest in the outcome of the process and their inclusion is vital to ensuring, for instance, an accurate assessment of undesirable results and at what point those results should be considered "significant and unreasonable." SGMA clearly identifies a minimum list of stakeholders in Water Code Section 10723.2 and allows for the identification of additional stakeholders, including self-selected "interested persons" as noted in Section 10723.4. Stakeholders are not limited to interested parties within the watershed: where groundwater flows have cross-boundary impacts, or in basins with

interconnected surface flows. Stakeholders must be identified for beneficial uses and users located outside of the basin, both upstream and downstream of the basin boundaries. These beneficial uses and users include impacted tribes, who must be invited to participate in SGMA efforts that impact or could be impacted by them.

Public involvement, on the other hand, is a public notification process that, in the case of SGMA, is required to be more robust than Brown Act notifications, requiring the GSA to encourage active involvement by diverse elements. We think that this is a wise move by the authors of SGMA. The long implementation period for SGMA ensures a turnover of interested parties and the emergence of new interests. A successful GSP will include a process for renewing the interested parties list that includes finding new interested persons through a robust public involvement process.

The passage of Senate Bill 13 in the 2015 legislative session adds a requirement to Water Code Section 10723.2 requiring that the department post "complete" notices of intent to form a GSA on their website. That means that the department now has an early requirement to ensure that prospective GSAs are following SGMA requirements to provide a "list of interested persons pursuant to Section 10723.2 and an explanation of how their interests will be considered in the development and operation of the groundwater sustainability agency and the development and implementation of the groundwater sustainability plan." The department is not required to evaluate the efficacy of the effort, but the simple requirement to ensure that this step is taken, will, we feel, make it easier to enforce the stakeholder engagement requirements in the GSP regulations.

Recommendation:

1) *Review previously submitted notices of intent to ensure that they contain the information required in Water Code Section 10723.8; remove incomplete notices and advise the relevant local agencies of the need to properly complete their notices.*

2) *Include in the GSP regulations a requirement for the GSA to develop, implement and update – at least once every five years – a communications plan*[ii] *that provides the following information:*

    a. *A schedule of key dates and projects for plan implementation*
    b. *Roles and responsibilities of local agencies, interested parties and the general public;*
    c. *An explanation of the decision-making process and how stakeholder input and public response will be used;*
    d. *Identification of opportunities for stakeholder engagement*
    e. *A process for updating the list of interested parties.*
    f. *Identification of tribes both within and outside the basin who are or may be impacted by the implementation of the GSP and how they have been engaged.*

<u>Sound Science</u>

Sound science will be critical to the effective implementation of SGMA: from accurate measurement and monitoring techniques to consistent data management and reporting protocols to transparent modeling assumptions. All basins would benefit from a consistent set of rules regarding the data and methodologies

that should be used to develop credible and coordinated thresholds across basins that can, and will, lead to sustainable groundwater management statewide.

For example, SGMA requires that basins achieve a sustainable yield by 2040 (or 2042); thus, most basins will use models to project how changing land and water uses, management approaches, and other factors will affect the basin's water budget and use that information to develop a sustainable yield. Because assumptions drive modeling efforts, GSP regulations should define some common assumptions that all basins are to use when developing sustainable yield. When developing a water budget for sustainable yield, a basin should incorporate:

• consistent forecasts of growth and land uses based on the most recent plans (e.g., county general plans, State Department of Finance projections, water demand forecasts from urban water management plans, integrated regional water management plans, and the California Water Plan);

• climate change forecasts made from a consistent set of scenarios (the state used IPCC Special Report on Emissions Scenarios A2 and B1 scenarios in the past); and

• a five-year-drought contingency plan (many urban water management plans already use a three-year-drought plan).

Recommendation: GSP regulations should require a clear accounting of water entering a basin (primarily through inflows and recharge) and water leaving a basin (primarily through outflows and pumping), along with a balance sheet that explains the change in storage. The state should also require groundwater level contour maps to understand how groundwater levels vary across the basin.

GSP regulations should encourage the most accurate measurement techniques as these introduce the least uncertainty for management purposes. The uncertainty of measurement estimates should be quantitatively described, where possible, and qualitatively described, where impossible. The characterization of uncertainty could correspond to different levels of precaution as basins with high levels of uncertainty will require more protective triggers and thresholds.

As data are reported to the state by individual basins, DWR should upload that data to open source, regional scale models within 90 days of receipt. These models will help to understand transboundary impacts and progress statewide.

GSP regulations should consider uncertainty around natural systems dynamics or new information pertaining to natural system dynamics as the basis for taking an adaptive management approach. In other words, adaptive management is only appropriate when natural system dynamics are not well understood or when a natural system responds in an unexpected way. Any alterations must go through the same public process requirements and stakeholder involvement requirements as GSP preparation requirements.

Our responses to the questions posed in the discussion documents are attached in narrative form.

Thank you for allowing us the opportunity to provide feedback on the development of these draft regulations.

Sincerely,

Robyn DiFalco, Executive Director, Butte Environmental Council
Jennifer Clary, Water Program Manager, Clean Water Fund
Kristin Dobbin, Regional Water Management Coordinator, Community Water Center
Phoebe Seaton, Executive Director, Leadership Counsel for Justice and Accountability
Chris Malan, Chair, North Coast Stream Flow Coalition
Kyle Jones, Policy Advocate, Sierra Club California
Juliet Christian-Smith, California Climate Scientist, Union of Concerned Scientists

cc: State Water Board

encl: Attachment A, response to discussion documents
Attachment B, regulatory outline

[i] California Water Code 10720.3, 10723.2, 10723.4, 10723.8

[ii] A good example of such a communications plan can be found in the Consumnes, American, Bear & Yuba Integrated Regional Water Management Plan, http://cabyregion.org/caby-irwmp-sections

Attachment A: NGO response to discussion drafts

TOPIC 1 – PRE-SGMA CONDITIONS AND UNDESIRABLE RESULTS

Pre-SGMA Conditions and Undesirable Results

Addressing undesirable results as required by SGMA requires a clear baseline of conditions in the basin as of January 1, 2015. All pre-SGMA conditions must be distinguished, with substantial evidence, from post-SGMA conditions by GSAs. Because SGMA went into effect January 1, 2015, all significant and unreasonable undesirable results that occurred from that time on must be addressed either through corrective action or, mitigated to the maximum extent possible for impacts that are permanent.

SGMA requires that GSAs overlying basins or sub-basins plan toward achieving "sustainable groundwater management," the maximum amount of water that can be withdrawn from the basin without achieving an undesirable result. (Cal. Wat. Code § 10721 subds. (u)(v), 10727.2 subd. (b).) As SGMA went into effect January 1, 2015, "undesirable results" as defined in the law, must be addressed to January 1, 2015 levels. (*Id.* at § 10721 subd. (w).) Failure to do so comprises non-compliance with the law. SGMA is clear that all undesirable results within high and medium priority basins must be addressed by 2040 or 2042. (*Id.* at §§ 10727.2 subd. (b)(1), 10721 subds. (t)-(w).) Addressing undesirable results requires a clear understanding of what GSAs must achieve for a basin or sub-basin to function sustainably. This is accomplished by establishing a baseline of January 1, 2015 conditions.

Section 10727.2 (b)(4) is also significant, as it creates discretionary authority for GSAs to address any pre-2015 undesirable result. We interpret this section to mean that, while GSAs do not have to attend to undesirable results that occurred before January 1, 2015, addressing undesirable results which occur after January 1, 2015 is mandatory. Giving GSAs the leniency to select a later baseline than January 1, 2015 could mean that undesirable results intentionally incurred after passage of SGMA are not addressed, potentially impairing the ability of the GSA to achieve sustainability. A baseline of January 1, 2015 conditions is needed.

All undesirable results in a basin need to be identified early in the planning process and should be presumed to have occurred on or after January 1, 2015, unless the GSA can prove otherwise by substantial evidence. This identification process should also be done publicly, so that locals who are affected by those undesirable results can weigh in on how they are identified and measured, and what constitutes a "significant and unreasonable" undesirable result. If, as we suspect will be the case in many basins, such a baseline cannot be clearly established, the local GSA and DWR must operate under the assumption that identified undesirable results occurred after January 1, 2015, and therefore must be addressed in the GSP. A lack of available baseline information should result in more significant monitoring and measurement requirements in a GSP.

Recommendation: DWR should require a clear quantitative baseline identifying all undesirable results within the basin in the GSP. All undesirable results should be presumed to have occurred at or after January 1, 2015, with substantial evidence needed by a GSA to make a determination that an undesirable result is a pre-2015 result that is voluntary to address.

Each GSP should also identify any statutes, regulations, policies or ordinances that affect their management of groundwater, including but not limited to State and Regional Board permits or programs, Public Trust or court settlements, ESA requirements, and local well ordinances. The GSP should identify how these programs impact their management of the resource. The UCS report "Measuring What Matters" provides examples of existing policies that can influence the establishment of undesirable results.[1]

"Significant and Unreasonable"

All undesirable results in SGMA are defined as "significant and unreasonable." (*Id.* at § 10721 subd. (w).) However, this definition does not define any negative impact as an undesirable result, but requires some level of impact that is "significant and unreasonable." DWR should expand on this term by providing an objective approach that is clear, consistent, and scientifically and legally defensible for establishing when a negative impact crosses the threshold of "significant and undesirable." Failure to clearly define what is "significant and unreasonable" is likely to lead to costly litigation which will delay achieving sustainability.

Groundwater is a shared resource belonging to the public. Any approach to regulate it must use the same framework so that transboundary impacts are measured and regulated using the same ground rules. DWR is required to evaluate GSPs to determine whether they are "likely to achieve the sustainability goal for the basin" and also "whether a GSP adversely affects the ability of an adjacent basin to implement its GSP or impedes achievement of sustainability goals in an adjacent basin" (*Id.* at § 10733). Thus, DWR has an important role in providing bookends, or a common framework, to guide locals in order to ensure that sustainable groundwater management can, and will, be achieved statewide as it is required to do under the terms of SGMA. A common framework would also make DWR evaluation of plans simpler to measure and track as one test would be applied everywhere. DWR should identify objective tests that can be used to determine when each undesirable result becomes significant and unreasonable.

Additionally, existing laws and compliance obligations should be considered, but not determinative of what is significant and unreasonable. Violating existing water quality standards, for example, should be a significant and unreasonable undesirable result, but full compliance with water quality laws should not mean that there could not be an undesirable result. An example of how a determination of "significant and unreasonable" impact can be made is through the application of the State Board's Anti-Degradation Policy, which recognizes that diminution of water quality does have an impact prior to the violation of a water quality standard. The Anti-Degradation Policy requires an analysis of the impact and can allow defined and limited degradation to occur if it is in the best interest of the people of the state of California.

Existing compliance obligations, including, but not limited to, the Clean Water Act, Safe Drinking Water Act, Endangered Species Act, and Public Trust Doctrine, should be identified and described in the GSP where relevant, and violation of their terms should be per se significant and unreasonable for each relevant undesirable result.

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[1] Juliet Christian-Smith and Kristyn Abhold *Measuring What Matters*, Union of Concerned Scientists, (Sept. 2015) Table 5, p. 22.

Recommendation: DWR needs to develop a common framework for each undesirable result that can be applied to site-specific results to determine whether they are "significant and unreasonable." This framework should not allow for a violation of existing laws to be considered insignificant or reasonable (see section on measurable objectives for the key features of a common framework).

The regulations should require the establishment of thresholds needed to avoid each applicable undesirable result, require a monitoring plan to ensure that thresholds are not exceeded and be subject to review as part of the annual reporting requirement.

Uncertainty

As groundwater management in California has until now been non-existent or voluntary, there is often insufficient data available to address uncertainty in planning. GSPs should reflect this uncertainty by allowing for flexibility to respond to new data on existing undesirable results, or later discovery of previously unknown undesirable results.

Recommendation: Uncertainty should be addressed by requiring additional information and/or action to reduce uncertainty. This could include requiring additional monitoring to understand the extent of an undesirable result and its response to a specific management strategy; or an assumption that an undesirable result is of recent (after Jan. 1, 2015) date.

Chronic Lowering of Groundwater Levels

The chronic lowering of groundwater levels is a unique undesirable result in that the definition recognizes the need for conjunctive management of basins, where water levels are drawn lower during dry periods and recovered during wet years. (*Id.* at § 10721 subd. (w)(1).) Essentially, this undesirable result should be managed to provide the GSA with an operating range to maintain groundwater levels at a level representing an excess of water that can sustain the basin through a future dry period without experiencing other undesirable results (this concept is often referred to as a "drought reserve").

As of January 1, 2015 California was entering its fourth year of drought. As SGMA makes clear, drought overdraft, like that which occurred in most basins in January 1, 2015, is insufficient to show chronic lowering of groundwater levels. By the same token, it should be insufficient to use January 1, 2015 levels to show that groundwater levels at that point were not a pre-existing undesirable result that is voluntary under section 10727.2 (b)(4). Baselines for groundwater levels within basins must reflect historical trends of use that were established prior to the drought, and that do not indicate a lowering of groundwater levels over time.

At a minimum (not taking into account other undesirable results which may require different water levesl), basin water levels should be required to maintain an operating range that meets safe yield, which is the common law minimum where pumping meets natural recharge levels. (*City of L.A. v. City of San Fernando (*1975) 14 Cal. 3d 199, 283.) While sustainable yield will likely require a higher level of water in most basins, it is possible that basin conditions as of SGMA's operative date were poor enough that "sustainable yield" is entirely unsustainable. If this is to occur, GSPs should still require operating to safe yield as an existing legal requirement, and to prevent GSPs allowing an expansion of use beyond existing

water rights. Pumping beyond safe yield would put the basin in a condition of mutual prescription. (*Ibid.*) Sanctioning this activity, might modify the priorities of water rights in the basin, in violation of section 10720.5 (a). To avoid modifying rights, DWR should be clear that an operating range designed to manage the basin to safe yield is an absolute floor for basins where sustainable yield is deemed lower than safe yield.

Recommendation: *DWR should require GSPs to develop a sustainability goal that includes a range of groundwater levels under normal and drought conditions. While the sustainability goal may involve an operating range (reflective of different water years), it must also incorporate a "drought reserve" that would allow the basin to be able to withstand at least a five-year drought without leading to undesirable results. The Department should provide drought scenarios for GSAs to incorporate in their drought planning.*

At a minimum, DWR should require management of water levels to an operating range centered on a level that represents the concept of safe yield to avoid impacting water rights.

Storage

Preventing significant and unreasonable reduction of groundwater storage requires GSAs to actively manage storage space in the basin. Storage space is a public resource, and should be managed by a public agency. (*See Central and West Basin W.R.D. v. So. Cal. Water Co.* (2003) 109 Cal. App. 4th 891 [135 Cal. Rptr. 2d 486, 495-496].) As courts have noted, proportional apportionment of storage space, consistent with correlative rights to pump, does not guarantee beneficial use of water, and that storage space must be used reasonably and beneficially in the interest of the people and public welfare. (*Id.* at 501-503.) Failing to ensure that storage space is used reasonably and beneficially could subject the space to prescription by a private party, thus reducing storage for the public. (*See id*. at 499.) To prevent reductions in storage, storage space must be managed to ensure its beneficial use for the public. To that end, GSAs are best poised to protect the public's interest in the beneficial use of groundwater storage and should include monitoring and determination of how to best use storage in a GSP.

Recommendation: DWR should make clear that storage in the basin is a public resource consisting of the area of the basin that could store water but that is not required to remain in the basin's operating range for groundwater levels, and that reduction of storage involves any loss of public space in a basin to store water, either through physical compaction of the space or legal loss of the space by the public is per se significant and unreasonable. DWR should require active management of groundwater storage in a basin to be a required plan element of a GSP.

Seawater Intrusion

The State Board has existing authority to regulate groundwater to protect it against seawater intrusion, but the State Board's authority is limited to preventing "irreparable injury to the quality" of groundwater. (Cal. Wat. Code § 2100.) This is a higher standard of damage than "significant and unreasonable," which could include temporary interruptions of the ability to pump as an undesirable result, or could set a threshold to protect a specific beneficial use, such as maintaining low salinity water for strawberries on the Central Coast. DWR should require GSPs to use existing State Board metrics, data, and monitoring

programs to set a baseline, but develop a different standard for intervention that will prevent or address an undesirable result under SGMA. The "irreparable injury" standard used by the State Board seems to violate the SGMA requirement to avoid undesirable results.

Recommendation: DWR should use State Board metrics, data, and monitoring programs for developing baselines of existing January 1, 2015 conditions regarding "significant and unreasonable" seawater intrusion. DWR should define "significant and unreasonable" independently of the State Board's "irreparable injury" standard for SGMA.

Water Quality

Unlike other undesirable results, many existing programs provide guidance on undesirable results for water quality; however, local GSAs should consider the establishment of triggers that will help them avoid violating water quality standards and other requirements. (*See* Juliet Christian-Smith and Kristyn Abhold *Measuring What Matters*, Union of Concerned Scientists, (Sept. 2015) Table 5, p. 22.) In addition, while other programs may define the thresholds used here, it is essential for the plan to include these figures, as management of all undesirable results are interconnected and the plan needs to evaluate the interaction of management strategies for different results.

Recommendation: Identify relevant statutes, and water quality thresholds required by those statutes, as well as management actions being taken by the GSA or other entities.

Land Subsidence

Land subsidence is occurring at an extremely fast rate in many portions of the state due to the current drought. Between January 1, 2015 and when GSPs must be adopted, there will likely be many instances where inelastic land subsidence has occurred. DWR should make clear that mitigation is required where undesirable results have occurred that cannot be reversed. For inelastic land subsidence, this should involve repairing any damage caused by the subsidence and replacing any loss of storage due to compaction of the basin. Costs should be covered by all regulated pumpers in that basin. (*See Los Osos Valley Associates v. City of San Luis Obispo* (1994) 30 Cal. App. 4th 1670, 1680 [36 Cal. Rptr. 2d 758].)

Even without pumping of water or with stable pumping, land subsidence can still occur. In these situations, DWR should develop a standard of "significant and unreasonable land subsidence" that recognizes that subsidence not caused by pumping of groundwater is reasonable.

Recommendation: DWR needs to require mitigation of all undesirable results that cannot be reversed, including land subsidence. Land subsidence that occurs naturally, absent groundwater pumping, should be considered as an exception.

Depletions of Interconnected Surface Water

DWR should require stream monitoring within the basin to help determine streamflow depletion that results from groundwater extraction. Instream flow for certain waterways may be set under Endangered Species Act and Clean Water Act requirements. For example, the State Board's Bay-Delta Water Quality

Control Plan and Instream Flow Guidelines for Northern Coastal Streams, DFW's standards for Deer and Mill Creeks, and regional TMDL-related flow requirements on Shasta River require certain flow standards to be maintained. Additionally, the Public Trust Doctrine creates an affirmative duty for the State to prevent pumping of hydrologically connected groundwater from negatively impacting surface water flows. (*See Environmental Law Foundation v. State Water Resources Control Bd.* Sacramento County Superior Court.) Each streamflow requirement must be identified in the GSP so management can take into account what streamflow must be at a minimum. Sufficient modeling and monitoring must be done so it can be determined when pumping of groundwater is leading to streamflow depletion.

Recommendation: GSPs need to disclose and consider all instream flow requirements for surface waters in the basin. Streamflow depletion needs to be determined based on the calculation of unimpaired streamflow, streamflow monitoring, and a water budget or modeling to ensure that pumping is not interfering with flow. The sustainability goal established by the GSP must identify the range of groundwater levels needed to ensure that instream flow requirements are met, and update that range as additional requirements come into effect.

Where a groundwater-fed stream lacks an in-stream flow requirement, an initial milestone of the GSP should be to develop such a requirement in consultation with the state and regional water board.

TOPIC 2 – Measureable Objectives and Interim Milestones

Topic 2 – Measureable Objectives and Interim Milestones

The Union of Concerned Scientists (2015) review of existing groundwater management plans and literature regarding groundwater management and adaptive management indicates that effective measurable objectives do the following:

- Define clear baselines;
- Set quantitative thresholds;
- Develop protective triggers that require action before reaching a threshold;
- Incorporate regular measurement and monitoring;
- Account for uncertainty; and
- Adapt to changing conditions and new information.

*Recommendation**:** We recommend that the state develop a common framework for setting thresholds, triggers, and interim milestones related to measurable objectives that rely on state standards and policies where they exist. It should also create common rules and methodologies when there are no state standards. The framework should list important considerations to be taken into account when developing thresholds for measurable objectives, including:*

- *Existing state standards and policies. It is important for a basin first to identify any existing state standards and policies that will determine the local thresholds.*

- *Level of impacts and who and what may experience negative impacts related to a certain threshold. Environmental, social, and economic impacts are all important considerations. A vulnerability assessment and a mitigation plan, in the event of exposure to negative impacts, would be required.*

- *Feasibility of reversing undesirable results. Irreversible undesirable results should be prohibited, as they impact future generations whom are not represented in current decision-making processes, even if they are inclusive and transparent.*

- *Level of certainty regarding the basin condition and the ability of management actions to address the impacts. Basins with less data, lower measurement accuracy, and higher levels of uncertainty should be required to use more protective triggers,*

- *Impacts on neighboring basins and impacts caused by neighboring basins. The state and locals have an interest in avoiding transboundary conflict and, therefore, it will be important to specify that thresholds must not be less protective than neighboring basin thresholds.*

- *Interactions and dependencies between undesirable results. For instance, thresholds for one undesirable result should not threaten others.*

State regulations need to be written so as not to discourage GSAs interested in more protective thresholds and triggers than those required by state regulatory standards. For example, a basin may choose to set a threshold for seawater intrusion that is more protective than that required by state water quality standards in order to protect local production of salt-sensitive crops.

TOPIC 3: LAND USE AND COUNTY INVOLVEMENT

The role of counties in SGMA implementation is at least recognized, because counties are specifically designated in the legislation. However, other land-use planning agencies are equally critical to the success of SGMA. Cities, specifically, hold much authority over land-use decisions and planning, which will significantly impact GSP development and the ability of GSAs to ensure sustainable yield of their basin. GSP regulations must incorporate the role of other planning agencies - and their associated planning documents and regulations - in GSP development. Relevant planning agencies include but are not limited to: Counties, Cities, Local Agency Formation Commission (LAFCOs), Metropolitan Planning Organizations (MPOs), Councils of Government (COGs) and Regional Transportation Planning Agencies (RTPAs). LAFCOs must ensure that Sphere of Influence updates along with annexations are consistent with GSPs and do not otherwise negatively impact drinking water resources for existing communities. LAFCOs must also incorporate GSP consideration into their Municipal Service Reviews. Likewise, GSAs must consider Sphere of Influence and Municipal Service Reviews in development of the GSP strategies. GSAs must consider GSP strategies in the context of long-term transportation planning and related growth projections. Transportation Planning Agencies must consider the implications of GSPs on long-term transportation planning and related growth projections. Similarly, COGs must consider GSPs in allocation of housing throughout their jurisdiction. Collaboration and coordination between and among these planning agencies is indispensable to implementation and success of GSPs.

Recommendation: GSP regulations must ensure ongoing coordination and collaboration among all land use and planning agencies overlying the basin or subbasin, including GSAs, Cities, Counties, LAFCOs, MPOs and COGs. Consistency among various planning documents is necessary for the success of SGMA and each individual GSP. The best means of developing consistent plans is clear representation of the various planning agencies in the GSAs - either as members through a JPA or MoU/MoA, or through some other formal arrangement between the planning agencies and the GSAs. As part of this arrangement, the GSA would provide early drafts of plan elements to the agencies and directly consult with agencies on plan elements to ensure consistency with planning documents.

Recommendation: DWR should provide a venue for arbitration between the GSA and planning agencies, in the event that a GSP includes unresolved issues between land use planning agencies and GSAs and a mutually-agreeable solution cannot be met through coordination or collaboration. The provision of arbitration services would be offered only to those agencies that have a governance structure that incorporates the input and feedback of local planning agencies.

TOPIC 4: **Alternative Groundwater Sustainability Plan Submittals**

SGMA allows for three scenarios where an alternative to a GSP could be submitted to DWR for satisfying the Act:

- The use of an existing Groundwater Management Plan (GWMP),
- A future adjudication, and
- A demonstration that the basin has operated within its sustainable yield over at least 10 years. (Cal. Wat. Code § 10733.6 subd. (b)(1)-(3).)

Ultimately, any alternative must satisfy the objectives of SGMA, which include sustainable management of groundwater, stakeholder outreach and engagement, and transparency. Additionally, adoption of an alternative to a GSP cannot be allowed to undermine efforts of neighboring basins to comply with SGMA.

Alternative submittals under section 10733.6 (a) must satisfy objectives of SGMA for the basin, which is defined as the entire basin or subbasin as identified in Bulletin 118. (*Id.* at §§ 107271 subd. (b), 10733.6 subd. (a).) This is clear as the legislature distinguishes where only a portion of the basin is affected in numerous other places in SGMA. (*See Id.* at §§ 10720.8 subds. (c), (e), (f)(3), 10723 subd. (d), 10726, 10726.4 subd. (a)(2), 10735.2 subds. (c)(1), (e), 10735.8 subds. (e), (g)(1)(A), 10736 subd. (b)(3)(B).) By excluding "portion of" when discussing basins in section 10733.6, it is clear that the Legislature intended for alternative submittals to meet SGMA's goals for the entire basin, and not to allow portions of the basin to submit alternatives that concern only their portion.

Even if it were allowed under SGMA, approving an Alternative GSP for a portion of a basin would lead to numerous problems that would make it difficult to comply with the objectives of SGMA. SGMA requires interbasin coordination that would not be guaranteed in this case. DWR would not be reviewing the basin as a whole, and would have to look at the proposed alternative for the portion of the basin

without a full picture in the basin. Allowing portions of a basin to be deemed sustainable while other parts still go through the regular GSP process might also create just such a *de facto* fragmentation of the basin that DWR sought to avoid with the Basin Boundary Regulations.

Many subbasins have been created where basin division is based on jurisdictional, not hydrological, boundaries. These areas present significant challenges for allowing for alternative GSP submittals as they likely will not have the ability to coordinate properly to not negatively impact neighbors. (*Id.* at § 10733 subd. (c).) Assumptions of adjacent subbasins would need to be consistent with the alternative GSP to adequately prove that a subbasin was operated sustainably within the context of the larger basin. This would require written agreements and sufficient organization in place within adjacent subbasins to ensure there will not be impacts. DWR should create a framework to accommodate this situation.

Recommendation: The regulations should make clear that alternative GSPs must protect the entire basin.

Existing Groundwater Management Plans

Existing plans can be submitted as alternatives to GSP where they satisfy the objectives of SGMA. This would include the avoidance of significant and unreasonable undesirable results and other requirements of section 10727.4, and adequate procedures in place to ensure stakeholder engagement and public participation, as required of GSPs by section 10727.8. Given the voluntary nature of GWMPs, the lack of public outreach and stakeholder engagement, the lack of regulatory enforcement, and the use of existing jurisdictional boundaries rather than basin boundaries, existing GWMPs are not likely to meet the requirements of an alternative submittal under section 10733.6. Without SGMA's coordination between neighboring basins in mind, existing GWMPs are also not likely to meet the requirement that plans cannot impede efforts of adjacent basins. (*Id.* at § 10733 subd. (c).) DWR should not easily accept existing GWMPs as an alternative submittal under SGMA.

Existing GWMPs have more use as a framework for developing GSPs for basins. GWMPs can serve as model governance structures or clearinghouses of groundwater data, where there may already be a basin-wide entity that has groundwater management experience. In these cases, existing agencies could develop processes for public outreach and stakeholder engagement and use existing GWMPs as a basis for developing a SGMA compliant GSP. Very low and low priority basins can still update their GWMPs since they are not prohibited to do so by section 10750.1. If these updates are framed around the goals in SGMA, they may be more likely to meet the requirements of becoming an alternative GSP, should these basins opt in to SGMA voluntarily or be found to be medium or high priority basins in the future.

Recommendation: DWR should only allow GWMPs to be an alternative GSP where they comply with SGMA entirely, but should allow existing GWMPs to be built upon to create SGMA-compliant GSPs.

Future Groundwater Adjudications

Future groundwater adjudications for medium and high priority basins should follow the procedures in Senate Bill 226. (Sen. Bill No 226 (2015-2016 Reg. Sess.).) Under this bill, courts in adjudication proceedings are to minimize impacts to, and redundancy with, development of GSPs. (*Id* at § 5.) Additionally, physical solutions adopted by the courts are evaluated by DWR to determine if they will

achieve sustainability. (*Ibid.*) DWR will continue to evaluate the physical solutions as part of their regular evaluation process under SGMA, and can recommend corrections to the courts as needed. (*Ibid*.) DWR should not have to worry about these physical solutions not achieving sustainability, but should include in regulations emphasis to local agencies to continue working on GSPs if an adjudication proceeding is underway. While legislation to streamline adjudications has been passed, these cases will still be very lengthy, and should not be an excuse to forgo management. Additionally, GSPs would likely be presented to courts as a physical solution to satisfy the adjudication and achieve sustainability. The SGMA's public process and stakeholder engagement requirements should continue to progress while a case is proceeding.

Future adjudications will also be conducted for areas that either conform to Bulletin 118 boundaries, or DWR will be required to change the boundaries based on findings of the court. (*Id*. at § 4.) This will eliminate any problems where adjudications and GSPs may potentially conflict. Any findings and data developed by adjudicated basins should still be used and will be helpful for ensuring coordination for adjacent basins.

An Analysis of Basin Conditions that Demonstrates that the Basin has been Operated Within its Sustainable Yield over a Period of at Least Ten Years

In addition to satisfying the overall goals of SGMA that include public processes and stakeholder engagement, determining that a basin has been operated within sustainable yield for a period of ten years includes showing by the agency or agencies that the basin has not experienced any undesirable results. (Cal. Wat. Code §§ 10721 subd. (v), 10733.6 subd. (a).) This will have to be done by determining a baseline at January 1, 2015, and providing substantial evidence to show that there has not been these undesirable results for the ten year period prior. This should be a high bar to show, with a presumption that any undesirable result occurring in the basin began occurring at January 1, 2015, and the agency or agencies would have the burden to defeat the presumption. Additionally, SGMA's goal of not having basins negatively impact neighboring basins would need to be addressed. If a proposed alternative cannot demonstrate this at both its initial application and during yearly evaluations, it fails to meet the requirements of being an alternative and must be rejected.

Recommendation: DWR should require substantial evidence that uses quantitative, not narrative, data to show sustainability over a ten year period.

Other Issues with Alternatives

Overall, DWR should develop a process whereby adjacent basins and the public would be allowed to protest a determination that an alternative meets the goals of SGMA, to create additional safeguards to protect the goals of SGMA.

When basins have an approved alternative GSP, they must begin annual reporting the following year. Annual reporting is required by § 10728 for "groundwater sustainability agencies," which are defined as "one or more local agencies that implement the provisions of this part." (*Id.* at § 10721 subd. (j).) This includes local agencies that submit Alternative GSPs. The "following an adoption of a groundwater sustainability plan" should still include adoption of an alternative GSP since a "groundwater sustainability plan" includes "a plan of a groundwater sustainability agency." (*Id.* at § 10721 subd. (k).) Since an

alternative is still a plan of an agency, and all agencies acting under SGMA are included in the definition, it is still required to undergo annual reporting. Annual reporting is also required of watermasters to an adjudication. Requiring watermasters to comply with annual reporting requirements is consistent with sections 10720.8(f) and 10728.

Recommendation: DWR needs to develop a protest process to allow potentially impacted individuals or neighboring basins to show that a proposed alternative does not meet SGMA's requirements. Reporting requirements should not be lessened for alternative GSPs.

TOPIC 5: OVERLAPPING AND "FRINGE" AREAS

Differences and difficulties in agency and adjudication boundaries and Bulletin 118 boundaries should not be a basis for changing basin boundaries or weakening planning requirements under SGMA. There is no authority in the Act to lessen its requirements because governance may be challenging. DWR should be clear that when basin boundaries are modified under any process, affected governance issues must be addressed by affected GSAs, and new notices of intent to manage the area must be provided. Section 10723.8 (a)(1) requires the notice to contain information on service area boundaries, if those change then new notice is needed to avoid confusion and ensure proper public outreach.

Overlapping Areas

Overlapping coverage of areas in a basin are explicitly not allowed with the passage of Senate Bill 13, which was signed by Governor Brown on September 3, 2015. This legislation clarifies that when multiple agencies decide to be a GSA for the same area, neither decision will have effect until the agencies work out one entity to manage the area. (Sen. Bill No 13 (2015-2016 Reg. Sess.) § 8.) This means that there will not be a GSA, leaving the basin subject to being designated as probationary. (Cal. Wat. Code § 10735.2 subd.(a)(1).) DWR should specify this process in regulations so that local agencies are aware of the consequences of failing to work together.

Fringe Areas

As stated above, fringe areas that lack governance should not be exempted from SGMA or held to a lesser requirement based on potential challenges to their governance. Under SGMA, a local agency or combination of agencies can elect to become the GSA for the basin. (*Id.* at § 10723 subd. (a).) SGMA has clearly defined that "basin" alone means the entire Bulletin 118 basin. (*Id.* at § 10721 subd. (b).) Since election of a GSA is not limited to portions of the basin, it is clear that existing jurisdictional boundaries do not limit a local agency when becoming a GSA. GSAs are separate entities, with separate powers and authorities that are not, and should not be, dependent on existing institutions.

Even statutorily created agencies are eligible to become a GSA for areas beyond their statutorily created boundaries. SGMA only at a minimum provides them with exclusive jurisdiction over their territory, but this does not prevent them from electing to become the GSA for the entire basin. (*Id.* at § 10723 subds. (a), (c).)

While previously adjudicated basins are exempt from SGMA, local agency watermasters and local agencies within the basin could still elect to manage the fringe areas. (*Id.* at §§ 10720.8, 10723 subd. (a).) DWR should identify potential fringe area issues near agencies identified in section 10723 (c) and adjudicated basins and reach out to those agencies to address governance issues in fringe areas.

If fringe areas still exist and local agencies do not elect to manage them, they would not be within the management area of a GSA, and the county would still be presumed to be their GSA, regardless of how small the area may be. (*Id.* at § 10724 subd. (a).) These areas should not be ignored or treated specially. Often, these areas will likely not include more than just *de minimis* users, with data already collected by pre-existing agencies or adjudications, so management and creation of a GSP should not be a challenge. Additionally, these *de minimis* users could be negatively impacted by larger pumpers in the basin or future pumping could increase, so a GSP is still important for even minor areas.

Recommendation: DWR should make clear that "fringe areas" must still be SGMA compliant, and that GSA jurisdiction is not the same as the jurisdiction of the agency, and can be basin-wide. DWR should work with counties and agencies prior to the planning process to ensure any "fringe areas" are adopted by an agency best suited to manage them.

TOPIC 6: Intra-Basin Coordination Agreements

Recommendation: DWR should identify how and in what format data should be submitted in order to ensure that neighboring basins, sub-basins, and portions of basins can work cooperatively. See Topic 7 Recommendations

TOPIC 7: WATER BUDGETS AND COORDINATION

Budgets can vary from extremely basic to highly complex; however, there should be a set of common data that are reported to the state. These data should be uploaded to open source, regional scale models by DWR to inform statewide SGMA implementation.

Recommendation: The state should require a clear accounting of water entering a basin (primarily through inflows and recharge) and water leaving a basin (primarily through outflows and pumping), along with a balance sheet that explains the change in storage. The state should also require groundwater level contour maps to understand how groundwater levels vary across the basin.

The state should encourage the most accurate measurement techniques as these introduce the least uncertainty for management purposes. The uncertainty of measurement estimates should be quantitatively described, where possible, and qualitatively described, where impossible. If it is impossible to quantitatively describe the uncertainty associated with measurement estimates, then they should be considered to have "high" levels of uncertainty. If it can be quantitatively described, then they should be described as having "medium" or "low" levels of uncertainty. The characterization of uncertainty should correspond to different levels of precaution. Basins with high levels of uncertainty will require more protective triggers and thresholds.

As data are reported to the state by individual basins, DWR should upload that data to open source, regional scale models within 90 days of receipt. These models will help to understand transboundary impacts and progress statewide.

TOPIC 9: DATA COLLECTION, MANAGEMENT, AND REPORTING

Please see the comments under Topic 7

TOPIC 10: ADAPTIVE MANAGEMENT AND FOCUS AREAS

Adaptive management is a useful framing for SGMA implementation, particularly since it is supported by several decades of research that have helped natural resource managers to consider how to make decisions in the face of uncertainty. Yet, it is also important to understand where an adaptive management approach is more useful, and where it has proven less useful. Adaptive management is well suited to management questions that involve high levels of uncertainty regarding natural system dynamics. If the uncertainty surrounds political or social obstacles, an adaptive management approach is not appropriate.

> "Where sufficient knowledge of resource dynamics and the influence of management on those dynamics are readily available, ecological uncertainty may not be the main obstacle to management goals. **Where it is rather specific political, social or institutional (rules and norms) challenges which represent the most considerable obstacles to progress in management one might conclude that AM is not appropriate – it is not being applied in the correct context for which it was intended and other approaches may be more suitable.** For example conventional resource management methods such as historically informed 'best practice' (Allan 2007). If, however, it is established that ecological uncertainty is a key obstacle, we must then consider if this uncertainty can be reduced through the use of structured experiments" (Rist et al., *A New Paradigm for Adaptive Management* (2013) 18(4) Ecology and Society 63.)

In addition, we agree that groundwater basins are not homogenous and that there will be areas that will require more attention than others (e.g., a cone of depression causing localized subsidence). However, we don't believe that there is any need to use the term "focus area" as managing for localized problems within a larger basin plan is a common practice in California and beyond. We are concerned that the use of the term "focus area" may imply that other areas do not need to be managed or monitored.

Recommendation: DWR should consider uncertainty around natural systems dynamics or new information pertaining to natural system dynamics as the basis for taking an adaptive management approach. In other words, adaptive management is only appropriate when natural system dynamics are not well understood or when a natural system responds in an unexpected way. Thus, it would not be appropriate to alter a trigger or threshold because a GSA chooses not to take a management action that is likely to bring the basin back on track due to political resistance. However, it may be appropriate to alter a trigger or threshold if a GSA has taken a management action and through structured monitoring and measurement has discovered that the system responded in an unexpected way, which best available science would not have suggested. Any alterations must go through the same public process requirements and stakeholder involvement requirements as GSP preparation requirements.

A contingency plan is a separate and useful tool related to ensuring that a threshold is not crossed, thus causing a "significant and unreasonable" undesirable result. We agree that contingency plans should be required but should not be confused with an adaptive management process.

We recommend avoiding the use of the term "focus area" or any term that implies that certain areas of a groundwater basin may be unmanaged or unmonitored. We agree that technical assistance should be provided to GSAs for general planning and implementation questions, including dealing with localized problem areas.

ATTACHMENT B: NGO OUTLINE OF GSP REGULATORY PACKAGE

I. Definitions

a. "Baseline" means the level from which undesirable results are determined. Unless an earlier date is selected by a groundwater sustainability agency (GSA) in its plan, baseline conditions shall be those for which data is available as of January 1, 2015.
b. "Threshold" means a measurable and quantifiable level beyond which "significant and unreasonable" undesirable results are deemed to exist.

II. Governance

a. A groundwater sustainability plan (GSP) shall provide the following information about the governance structure of its GSA:
    i. A list of all local agencies located within the basin or subbasin boundaries and how they were informed of and included in the process of forming the GSA and GSP;
    ii. A copy of any joint powers agreement, memorandum of agreement or other contract that identifies the agencies actively represented in the governing body;
    iii. By-laws, resolution or other legal agreements identifying how decisions are made;
b. A GSP shall identify any powers or authorities that it has chosen to implement pursuant to Chapter 5 of Part 2.74 of the Water Code.
    i. In identifying the powers implemented, the GSP shall also identify, through the communications plan required by II.c., how local agencies, tribes, interested parties and the public were encouraged to provide feedback on the implementation of those powers.
c. Outreach and engagement. A GSP shall include a communications plan that identifies how it has complied with the stakeholder engagement and public notices requirements for GSA and GSP development, and provide a plan for how it will continue to solicit such engagement as the plan is implemented. At a minimum, the plan shall describe
    i. How local agencies, including city and county governments and planning authorities, are included in decision-making, and how their input is sought and incorporated into the decision-making process of the GSA;
    ii. How interested parties have been identified and included in decision-making, and how their input is sought and incorporated into the decision-making process of the GSA;
    iii. How tribal interests within the basin or sub-basin, as well as those impacted by management of the basin or sub-basin, have been identified and notified of the formation of a GSA and development of the GSP; and how their interests have been invited and incorporated into the GSP and its governance;

iv. How the GSA has invited the "active involvement" of "diverse elements" of the public in its GSA formation and the development and implementation of the GSP;

v. Identification of languages other than English that are spoken by more than 5% of the local population, and provision of translation of meetings and materials for those residents

d. Coordination

i. The GSP shall identify how it plans to coordinate with, and solicit input from, state and federal agencies whose activities take place in, impact, or are impacted by, sustainable management of the basin or sub-basin.

ii. The GSP shall identify how it has and how it plans to coordinate with land use planning agencies including cities, counties and LAFCOs

iii. The GSP shall identify how it plans to coordinate activities with adjacent basins or sub-basins.

iv. The GSP shall identify how the GSA plans to coordinate activities with other GSAs within the same basin or sub-basin.

v. The GSP shall identify how it has incorporated existing land use plans and / or proposed land use plans

vi. The GSP shall identify how the GSP and GSA will inform future land use and planning decisions including general plans and components thereof, sustainable communities strategies and municipal service reviews

e. Unless exempted by existing statute (e.g., personnel issues), all meetings and materials generated by the GSA will be available to the public.

III. Setting

a. A GSP shall determine a quantitative baseline that, at a minimum, contains:

i. Physical setting, as identified in 10727.2 (a)

ii. Identification and quantification of undesirable results, that includes:

1. Each undesirable result and a determination as to whether that undesirable result occurred as of January 1, 2015. If sufficient data to establish a quantitative baseline of January 1, 2015 is not available, the undesirable result will be presumed to have been in existence as of January 1, 2015.
2. Identification of a groundwater level operating range tha*t ensures that reductions in groundwater levels or storage during a 5-year drought, as identified by the department, can be offset by increases in groundwater levels or storage during other periods.
3. Per CWC 10727.2 (a) (3), both historic and projected water demands and supplies. For projected water demand and supplies, the plan shall use climate change projections provided by the department or submitted to the department for approval with the plan.

iii. Regulatory setting that includes:

1. Any and all federal and state laws and regulations, local plans and ordinances and other requirements that impact or are impacted by implementation of the GSP. Examples include but are not limited to the Endangered Species Act, in-stream flow requirements, cleanup and abatement orders, local general plans and well ordinances.

IV. Undesirable Results and Measurable Objectives

a. For each undesirable result identified in the GSP, the GSA shall
   i. identify the data used to determine that result;
   ii. describe how local agencies and interested parties were engaged in developing each undesirable result;
   iii. Provide specific spatial information about its location and extent;
   iv. Identify any regulatory or statutory requirements that provide a minimum threshold for undesirable results;
   v. Identify whether the undesirable result occurred after January 1, 2015
   vi. Identify a threshold at which the undesirable result is addressed or mitigated, and an explanation of how that threshold was developed.
   vii. Add in some lists of undesirable results

b. Identification of measurable objectives
   i. Per CWC 10727.2 (b), the GSP shall provide measurable objectives, expressed in 5-year interim milestones, for avoiding or addressing each undesirable result. The plan shall list important considerations used to develop thresholds for measurable objectives, including:
      1. Existing state standards and policies. It is important for a basin first to identify any existing state standards and policies that will determine the local thresholds.
      2. Level of impacts and who and what may experience negative impacts related to a certain threshold. Environmental, social, and economic impacts are all important considerations. A vulnerability assessment and a mitigation plan, in the event of exposure to negative impacts, would be required.
      3. Feasibility of reversing undesirable results. Irreversible undesirable results should be prohibited, as they impact future generations whom are not represented in current decision-making processes, even if they are inclusive and transparent.
      4. Level of certainty regarding the basin condition and the ability of management actions to address the impacts. Basins with less data, lower measurement accuracy, and higher levels of uncertainty should be required to use more protective triggers,
      5. Impacts on neighboring basins and impacts caused by neighboring basins. The state and locals have an interest in avoiding transboundary conflict and, therefore, it will be important to specify that thresholds must not be less protective than neighboring basin thresholds.

6. Interactions and dependencies between undesirable results. For instance, thresholds for one undesirable result should not threaten others.

ii. For each significant and unreasonable undesirable result found to exist in the basin or sub-basin, provide specific actions and timelines for addressing that result, as well as a scientific explanation of why that result cannot be attained more quickly.

iii. If the GSP does not plan to address the undesirable result, provide an explanation of why that decision was made.

iv. The plan shall also identify actions to avoid undesirable results.

v. Actions identified in the GSP must meet minimum standards identified by the department in its development of best practices.

c. Sustainability goal

i. The plan shall identify a sustainability goal that addresses each significant and unreasonable undesirable result in the basin as quickly as feasible, but no later than 20 years after adoption of the GSP.

d. Consistent framework. The department shall, as part of its best practices development, provide a common framework for setting thresholds, triggers, and interim milestones related to measurable objectives that rely on state standards and policies where they exist, and create common rules and methodologies when there are no state standards.

V. Monitoring and management

a. Data requirements

i. Data required per CWC 10728 will be provided in an electronic format specified by the department.

ii. If inter or intra-connected basins or sub-basins cannot agree upon the same data and methodologies for their required reporting, the department may require the GSAs to provide information using the department's hydrological model or other open-source data format.

iii. Water budgets; for each basin or sub-basin, the GSP shall provide a clear accounting of water entering a basin (primarily through inflows and recharge) and water leaving a basin (primarily through outflows and pumping), along with a balance sheet that explains the change in storage. The GSP shall also provide groundwater level contour maps to demonstrate how groundwater levels vary across the basin.

iv. The GSP shall identify the level of uncertainty in the data provided to the state and used to develop the plan. The GSP shall describe, quantitatively where possible, and qualitatively described, where impossible. If it is impossible to quantitatively describe the uncertainty associated with measurement estimates, then those estimates are considered to have "high" levels of uncertainty. If uncertainty can be quantitatively described, the es timates will be described as having "medium" or "low" levels of uncertainty. The GSP should explain how

the level uncertainty impacted the development of measurable objectives and thresholds.

VI. As data are reported to the state by individual basins, DWR should upload that data to open source, regional scale models within 90 days of receipt. These models will help to understand transboundary impacts and progress statewide.

a. Reporting requirements

i. Annual

1. While aggregated extraction data is allowed (CWC 10727.8 (b)), the department may determine, based upon the location and extent of significant and unreasonable undesirable results, that aggregation at a smaller scale than basin or sub-basin level is needed to track the progress of spatially identified measurable objectives.
2. In the case of groundwater-fed streams, groundwater elevation data provided must be sufficient to show that instream flow needs are being met throughout the year.
3. If the department determines that the timing or type of data submitted by coordinated basins or sub-basins is insufficient, the department may require a change in data collection in order to confirm cross-basin impacts.

ii. Every 5 years

1. The five-year report will:
    a. Address progress in addressing significant and unreasonable undesirable results identified in the prior plan;
    b. Identify any new significant and unreasonable undesirable results identified in the past 5 years;
    c. Explain how the plan will be updated to address new, and avoid future, significant and unreasonable undesirable results;
    d. Update the communications plan identified in II. b, including a description of how newly impacted beneficial users including but not limited to local agencies, tribes, interested parties, and the general public will be included in updating the plan;
    e. Explain how significant and unreasonable undesirable results incurred after January 1, 2015 will be mitigated;
    f. Be posted on the department's website for public review and comment.

VII. State oversight

a. DWR review

i. Reviewing and approving alternative GSPs

ii. DWR, as part of its review, must confirm that:

1. Data submitted is sufficient to track the achievement of measurable objectives.
2. The achievement of measurable objectives is being accomplished in a timely fashion.
3. Those impacted by significant and unreasonable undesirable results have been and continue to be engaged in plan implementation.

iii. Declaration of probationary status

1. A GSP will be deemed to be out of compliance with SGMA if:
    a. The GSP fails to identify and/or implement a full suite of feasible actions to avoid and/or address undesirable results, and because of that failure, the undesirable results are not addressed or worsen;
    b. The GSP fails to implement a plan because it cannot generate the fee revenue to take needed actions;
    c. The State Board (in section b, below) finds that the GSP is likely to fail to achieve the sustainability goal for significant and unreasonable undesirable results for seawater intrusion, water quality, or groundwater-fed streams.
    d. The department finds that the GSP is likely to fail to achieve its sustainability goal for undesirable results for chronic lowering of groundwater levels, significant and unreasonable reduction of groundwater storage, or significant and unreasonable land subsidence

b. State Board consultation

i. For groundwater-fed streams that do not yet have in-stream flow requirements, the State and/or Regional Water Boards, will review and approve that portion of that portion of the GSP that identifies significant and unreasonable undesirable results, provides measurable objectives to address those results and identifies management strategies to prevent future problems.

ii. For significant and unreasonable undesirable results related to seawater intrusion, the State Board will review and approve that portion of that portion of the GSP that identifies significant and unreasonable undesirable results, provides measurable objectives to address those results and identifies management strategies to prevent future problems.

iii. For significant and unreasonable undesirable results related to water quality, the State Board will review and approve that portion of that portion of the GSP that identifies significant and unreasonable undesirable results, provides measurable objectives to address those results and identifies management strategies to prevent future problems.