

 CLEAN WATER ACTION | CLEAN WATER FUND



April 1, 2016

David Gutierrez
Executive Program Manager, SGM Section
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Sacramento, CA 94236
sent via electronic mail to: sgmps@water.ca.gov

Re: Comments on draft Groundwater Sustainability Plan Regulations

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 draft Groundwater Sustainability Plan (GSP) Regulations. We appreciate the time and effort spent by your staff in meeting with our groups to share your ideas for implementation of the Sustainable Groundwater Management Act and listening to our input. We are pleased to see some of our suggestions included in the draft regulations – particularly the requirement that GSPs include a communications plan that describes how they plan to comply with the Act and clear requirements for coordination with land use planning agencies.

In general, we believe that the regulations are clear and concise and reflect our collective interests in promoting the use of sound science and incorporation of stakeholder input. We strongly support the following content in the regulations:

- The requirement for a communications plan that describes how the Groundwater Sustainability Agency (GSA) will comply with the Act;
- The data, monitoring and reporting requirements, particularly the requirement that the GSA demonstrate its financial ability to implement the Plan and the requirement that each GSP include a water budget. We think the transparency requirements are good, with the exception of the guidance for handling of proprietary data (Article 3, Section 352.6 (f)).
- The requirements for a thorough description of the plan area, particularly the substantive inclusion of land use planning agencies and documents in the plan that may impact water use in the basin or impact the ability of the GSA to achieve sustainability (Article 5, Section 354.8). Explicitly drawing connections between land use planning and groundwater management – and requiring coordination between these sectors – is critical to the successful implementation of GSPs.
- The coordination requirements in Article 8. We agree that one of the responsibilities of local agencies is to coordinate with other GSAs in their basin. We feel that the department has provided a workable framework that allows them to obtain the information they need to ensure that a basin is being managed sustainably without having to interfere in intrabasin issues.

In our review, we also found areas that we feel require additions or amendments. These include:

- The measures for evaluation and assessment of GSPs (Article 6), which lack specificity, making it impossible for implementing agencies, coordinating agencies, stakeholders or the general public to understand how the identified criteria in 355.4 (b) will be used to make a determination of plan adequacy;
- Insufficient requirements in the Sustainable Management Criteria (Article 5, Subarticle 3); in particular, there is no requirement that GSPs address Undesirable Results that occur after January 1, 2015 or that uncertainty of data or actions generate more protective actions;

- Confusing terminology makes it difficult to understand some requirements, in particular the call for “substantial compliance” to determine the adequacy of a GSP. This is a term used to evaluate construction projects, not plans. It’s an awkward and problematic term and should be removed.
- Lack of guidance on GSA governance and explicit requirements to coordinate with other jurisdictions within or adjacent to the basin. Because local agencies, particularly counties, municipalities and GSAs, have overlapping authority, sustainable groundwater management will be impossible without strong coordination and inclusive governance.
- The total lack of any requirements for tribal engagement – either outreach, communication or consultation. Because Consultation guidelines (government-to-government communications for the purpose of high-level information-sharing and decision-making) vary for each tribe, this task is both very important and highly variable from basin to basin.

The attached document provides a detailed outline of our recommended revisions – including suggested language – to improve the GSP regulation to address these concerns, and thereby ensure the intent of the Sustainable Groundwater Management Act is met. Our documentation follows the draft regulations section-by-section, and includes both content we are supportive of and content we would like to see. Members of the NGO Groundwater Collaborative are happy to discuss our recommendations with you and/or provide additional support to the Department in refining these regulations.

Thank you for allowing us the opportunity for continued feedback on the development of these important regulations and the implementation of this landmark legislation.

Sincerely,

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ARTICLE 1

§ 350.2 GENERAL PRINCIPLES

Support

- Setting up key principles helps set the proper direction for the regulations. We especially appreciate the inclusion of (d) (4) [a description of]... The institutional system that will maintain sustainability over the planning and implementation horizon”

Suggested changes

(a) The Plan must achieve the sustainability goal for the entire basin ~~within 20 years~~ as soon as practicable but no later than 20 years from of Plan implementation without adversely affecting the ability of an adjacent basin to implement their Plan or achieve their sustainability goal. To achieve sustainability, Plans must consider cumulative impacts to current and future generations of beneficial uses and users.

(c) The Department shall evaluate the adequacy of all Plans, including subsequent modifications to Plans, and reports and periodic evaluations ~~based on a substantial compliance standard as described in Article 6, provided~~ to ensure that the goals of the Act are satisfied.

(d) (1) A process and reasonable schedule for prioritizing and filling data gaps throughout the course of Plan implementation. Efforts should be made early in plan implementation to address data gaps and reduce uncertainty.

(d) (3) A definite course to achieve the sustainability goal ~~within 20 years~~ as soon as practicable but no later than 20 years from of Plan implementation.

(d) (5) How beneficial users of groundwater and interested persons as well as the public will be engaged and informed throughout plan development and implementation

(e) Adaptive management may be employed as a tool for improving local and regional management of the state’s groundwater basins ~~within 20 years~~ as soon as practicable but no later than 20 years from of Plan implementation and over the planning and implementation horizon.

New bullet (i) Plans shall increase the level of precaution and conservatism in proportion with the degree of uncertainty of information or data and the extent to which impacts could be irreversible

New bullet (j) To achieve sustainability, the Plan must consider cumulative impacts to current and future generations of beneficial uses and users.

New bullet (k) The Department shall consider how the Human Right to Water (Water Code 106.3) is being achieved or protected through plan implementation.

Discussion

Because SGMA statute permits local plans to allow degraded groundwater conditions that don't trigger undesirable results, it is important that the calculation of undesirable results identify the **cumulative impact** of the degradation of these conditions. As a precedent, we refer to the State Board's anti-degradation policy, Resolution 68-16, which allows degradation only after an analysis of the impacts of that degradation, and sets limits on how much degradation is allowed.

SGMA statute requires **compliance within 20 years** of implementation, but using only the 20-year horizon in the regulatory language does not clearly convey that 20 years is the *outside* limit of legal compliance and discourages early implementation

See our discussion of the term **substantial compliance** in §355.4

Our organizations fully understand that groundwater management is complicated and that many organizations, either due to a lack of past data or current resources, may not have the ability to address all data gaps in the initial plan. However, we think it essential that **data gaps** and uncertainty be identified in the initial plan. The ability to characterize uncertainty and apply it to setting minimum thresholds, given all available information, will allow agencies to avoid inadvertently causing undesirable results.

Strong local engagement and input will be key to the success of these plans and is specifically required in statute. The department's principles should reflect the importance of such engagement

As a new regulation, groundwater sustainability is being planned and implemented with varying levels of data and uncertainty. When data is lacking or there is a high degree of uncertainty, planning, objectives and actions should reflect this uncertainty by erring toward the conservative.

The focus of this program is on long-term groundwater management. **Sustainability** as a concept in both legal and technical literature considers users now and in the future. This forward-looking approach is what distinguishes it from other approaches. Therefore, it will be critical to apply a higher level of scrutiny to actions that are irreversible, such as inelastic land subsidence.

The department has an obligation to consider the **Human Right to Water** and needs information in order to track how these regulations can achieve this state priority as expressed in Water Code 106.3.

Article 2

§ 351. DEFINITIONS

Support

- Definitions are generally good; we are especially pleased with and supportive of:
 - (n) “interim milestone” to keep progress on track,
 - (t) “plain language” for its accessibility,
 - (ah) "water use sector" linking water and land use.

Suggested new definitions

“Beneficial Uses” of groundwater are those identified in CA Water Code sections 13050(f) and 1243 that apply to groundwater or to interconnected surface waters.

“Beneficial users of groundwater are those communities, species and ecosystems that rely upon groundwater or interconnected surface water, as identified in Water Code 10723.2.

“Groundwater-dependent ecosystems (GDEs)” refers to ecological communities and species that require direct or indirect access to groundwater, or rely on the interconnection between groundwater and surface water, for some or all of their water requirements

“Groundwater flow” refers to the volume and direction of groundwater movement into, out of, or throughout through a basin.

Amended definitions

“Critical parameter” refers to chronic lowering of groundwater levels, either seasonally or inter-annually, indicating a depletion of supply if continued over the planning and implementation horizon, reduction of groundwater storage, sea water intrusion, degraded water quality, land subsidence that substantially interferes with surface land uses, and depletions of surface water that have adverse impacts on beneficial uses of surface water that may lead to undesirable results, as described in Water Code Section 10721(x).

“Interconnected surface water” refers to conditions where surface water and the underlying aquifer are hydraulically connected at any point in the year, by a ~~continuous~~ saturated zone and the overlying surface water is not completely permanently depleted.

Discussion

There is reference to **beneficial uses** and **beneficial users** throughout the SGMA statute as well as the draft regulations, but no definition or reference is provided. We think that oversight should be addressed here, and have provided the appropriate Water Code references.

The term “**critical parameter**” should have a temporal component to reflect the seasonal nature of surface water flows and groundwater elevations. Seasonal lowering of groundwater levels leads to

dewatered rivers and streams and resultant undesirable results even when there is no permanent depletion of groundwater table.

The term “**groundwater-dependent ecosystems**” is referenced in both statute (Water Code 10727.4 (l)) and the draft regulation (354.16 (f)) and requires definition.

As written, the definition for “**interconnected surface waters**” would exclude those streams whose groundwater interaction is not constant, likely a majority of waterways in an arid state. It should be amended to encompass streams with any connection with groundwater.

Article 3

§ 352.4 BMPs

Support

The incorporation of BMPs into the regulations

- These are generally good; strict enough without being overbearing, and will allow for department comparison across basins.
- Provides for a review and update of BMPs at least every five years
- Recognizes the authority of the department (WC 10733.2(b)(1)) to mandate BMPs in the regulations.

Suggested amendments

(a) Each Plan shall include best management practices adopted by the Agency for management actions, data collection and analysis, and other necessary elements of the Plan. The Agency may rely on best management practices developed by the Department or shall adopt their own best management practices that meet or exceed those of the Department.

Discussion

SGMA (Water Code 10733.2 (b) (1) authorizes the department to incorporate their best management practices into the regulations. We think it appropriate that the department signal its intention to do so, and to require local agencies using their own BMPs to **meet or exceed** the standards imposed by the department.

§ 352.6 DATA AND REPORTING STANDARDS

Support

- Guidance on well standards, maps and modeling
- Requirement that models use public domain open-source software

Suggestion

Revised bullet **(b)(2)** Wells used as the source of basic geologic or other information, including data used to develop the hydrogeologic conceptual model, to determine the water budget, or establish the basin setting, shall provide the best available information. All available information about the wells shall be reported in the Plan, which shall include, at a minimum, ~~well location, well construction, and well use~~ the requirements found for monitoring wells in subsection (3) below.

Revise section (b) (4) to read: If an Agency relies on wells that lack casing perforations, borehole depth, and total well depth information to monitor groundwater conditions as part of an initial Plan, the Agency shall describe a schedule for acquiring monitoring wells within the first 5 years of plan implementation with the necessary information, or demonstrate to the Department that such information is not necessary to understand and manage groundwater in the basin.

New section (e) (4) All data shall be submitted using a common format established in the BMP document that can be easily uploaded into a regional open-source model on DWR's website within 30 days of receipt of the Plan.

Revise section (f) to read: The Agency shall provide a list of references and technical studies relied upon by the Agency in developing the Plan. The Agency shall provide electronic copies of all reports and other documents and materials that are not otherwise generally available to the public. ~~Proprietary data and reports need not be disclosed unless requested by the Department to resolve interbasin disputes, as described in Section 355.12.~~

Add new section (g) to read: Data and reports considered proprietary by the Agency shall be identified as confidential at the time of submission with an explanation that provides the specific California code and section under which confidentiality is being asserted. The department will treat the information as confidential per the requirements of Government Code 6250 et al; however, if a public records request is made for the information, the department shall make a determination of whether the information qualifies as proprietary under the cited code. The department shall inform the Agency of its decision prior to any action to release the information to the public.

Add new section (g) the data used for groundwater and surface water models will be posted by DWR into a regional model within 180 days of receipt.

Discussion

As section 352.6 addresses data used and not information derived from such data, this section should be more concise in the type of **well data** required. Section 354.14 details very specific information required for the reporting of the conceptual model and hydrogeologic setting. The wells used to develop these components should be of the highest standards. The data required for monitoring wells in § 352.6 (b)(3) is more comprehensive and should set the minimum requirements applicable to the wells referenced in § 352.6 (b)(2). In addition, there should be requirements for how GSAs will develop the necessary wells to collect and augment the requisite data to continuously improve models and known physical characteristics of each groundwater supply basin. We strongly support the requirement to use public domain **open-source software** for modeling efforts as this is the only way to allow meaningful stakeholder and public engagement in the technical aspects of GSP development. Equally important as having those models be publicly available is understanding the data used in the models.

Because **public comment** is only guaranteed for 60 days, the public will need to be able to see the modeling data to make informed comments. If 30 days is too short a time for the department to post, we suggest lengthening the public comment period, or making the comment period clock start when the modeling data becomes public.

It is common practice for state agencies to receive **propriety information** and maintain confidentiality, and most state agencies have a policy for the handling of such information. The draft regulations for the Water Supply Investment Program provide an example (Section 6001 (a)) of how that may be done. Allowing local agencies to retain proprietary information that is needed to review Plan adequacy is neither appropriate nor standard practice and should not be permitted in these regulations.

§ 352.8 DATA MANAGEMENT AND RECORD-KEEPING

Suggested amendment

Each Agency shall develop and implement ~~a coordinated~~ an electronic data management system that is capable of storing, maintaining, and reporting all relevant information related to the development or implementation of the Plan to the Department, beneficial users, interested persons as well as the general public.

Discussion

We deleted the term “**coordinated**” because there was no reference to what was being coordinated; if the department decides to retain the term, it would be helpful to provide more detail. We also understand and appreciate that the department will require data from local agencies to be submitted **electronically** to DWR. However, since the desired public engagement will occur at the local level, local information should also be electronically maintained and made publicly available.

Article 4

§ 353.4 REPORTING PROVISIONS

Support

- We are generally pleased with this section; especially the public notification and comment components. It is critical that this be included in the regulations to ensure transparent public process and equitable, sustainable management of groundwater.
- We support bullet (b). Legal certification ensures public accountability.

Suggestion

(c) All materials submitted to the Department shall be posted on the Department's Internet Web site within 30 days of receipt.

Discussion

SGMA statute provides for **timely posting** of information by the department (GSA formation (10723.8(b), 10723 (c) (2); plan submittal 10733.4 (c); probationary status 10735.2 (b)); this change simply makes the regulations consistent with statute.

§ 353.6 INITIAL NOTIFICATION

Support

- Requirement that identification of interested parties and the manner in which they will participate in plan development is included in the initial notification

Suggestion

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(a) Each Agency shall notify the Department, in writing, within 30 days of an Agency's decision to develop a Plan. The notification shall provide general information about the Agency's process for developing the Plan, including the manner in which interested parties and persons may contact the Agency and participate in the development ~~and implementation~~ of the plan and the timeline and process for developing the Communications Plan required in §354.10. The Agency shall make the information publicly available by posting relevant information on the Agency's Internet Web site.

Discussion

While our organizations deeply appreciate and support the requirement that local agencies provide a **communications plan** as part of their Groundwater Sustainability Plan, those plans will necessarily be submitted some appreciable time after the communications plan is needed for public engagement in plan development. To address the temporal lag, we recommend that plan notification provide minimal information about the local Agency's development of their communications plan. Since the formation of a Groundwater Sustainability Agency already requires the development of a list of interested parties and an explanation of how they will be engaged in plan development (Water Code 10723.8 (a) (4)), our

proposal is a logical and not onerous next step that provides some assurance that the Communications Plan will be developed early and implemented as the Sustainability Plan is developed.

§ 353.8 PUBLIC COMMENT

Support

- “Any person may provide comments to the Department regarding any proposed or adopted Plan.” This is in keeping with the public process required by the legislation, and critical to equitable implementation of the regulations.
- We are generally well pleased with this entire section, and place an extremely high value on its inclusion within the regulations.

Suggestion

~~Delete (c) (3) The level of detail provided by public comment need not be as comprehensive as that contained in the proposed or adopted Plan, but should rely on similar scientific and technical information, including the reliance upon the best available information and best available science.~~

(f) The Department shall give the Agency a reasonable opportunity up to 60 days to respond to public comment, including the opportunity to modify the Plan consistent with Section 355.2.

Discussion

Our groups did not object to the requirement in the Basin Boundary Change regulations that **public comments** should provide a level of scientific and technical detail commensurate with the proposal because that process is based on technical and scientific data. That is NOT the case with Groundwater Sustainability Plans, which are by definition based on local interpretations of sustainability and undesirable results. We therefore feel that the limitation on public input is not appropriate and ask that it be removed.

It is likely that public comments submitted to the department have also been received or heard by the GSA, if they are properly implementing their Communications Plan. Therefore we think that requiring a **time certain** for an Agency to respond to public comments submitted to the department is appropriate.

Article 5. Plan Contents

Sub-Article 1

§ 354.4. EXECUTIVE SUMMARY

Support: the requirement for an executive summary in plain language.

§ 354.6. AGENCY INFORMATION

Support

- The requirement that a groundwater sustainability agency demonstrate that it has sufficient technical, managerial and financial capacity to implement the Plan. (354.6 (b), (d), (e)) is very important. The financial ability of a basin to raise the funds needed to implement a plan is as critical as the plan itself.

Suggestions

(b) Documentation of the organization ~~and~~ management structure *and public processes* of the Agency. The documentation shall identify persons with management authority for implementation of the Plan.

Discussion

SGMA statute has several requirements to engage affected residents and interested members of the public in Plan development. A discussion of the organizational structure should therefore include how that public engagement is being integrated into the governance structure of the Agency.

§ 354.8 PLAN AREA

Support:

- We are pleased with the Department's inclusion of points provided through previous correspondence and offer some modifications to the Draft Regulations as outlined below.
- This section is critically important to drawing connections between land use management and sustainable groundwater management. Aligning land use planning and authorities with GSA authority and GSP implementation will ensure the Plan achieves its sustainability goals according to the principles of integrated water management.

SUGGESTIONS

(a) (4) Designation of existing land uses *using the department's land use classes* and the consistent identification of each water use sector and water source type *to ensure consistency and shared understanding throughout the state.*

(a)(5) The density *and depth* of wells per square mile, by dasymetric or similar mapping techniques, showing the distribution of all agricultural, industrial, and domestic water supply wells in the basin, including de minimis extractors, and the location and extent of communities dependent upon

groundwater. Each Agency shall utilize data available from the Department, as specified in Section 353.2, or the best available information, provided it provides the same or greater level of data at that provided by the Department.

(e) A description of coordination between the Plan, Integrated Regional Water Management Plans, and Flood Management Plans, Sustainable Communities Strategies, Municipal Service Reviews, Plans, if applicable ~~and all other local or regional planning documents pertaining to land use and/or water management.~~

(g) A plain language description of the all relevant land use elements ~~or~~ and topic categories of any applicable general plans ~~that includes the following from jurisdictions within the basin. The description shall include:~~

(g) (4) An assessment of how implementation of the Plan may effect applicable land use plans including an assessment of how implementation of the Plan may effect implementation of housing elements within the basin.

(g) (6) A summary of the process and criteria for permitting wells in the basin

(7) How implementation of existing land use plans may affect the ability of the Agency to achieve sustainable groundwater management, and how the Plan addresses potential effects.

Discussion

The Act indicates that the legislature understood the importance of close coordination between GSAs and land use approval agencies to ensure successful plan implementation, confirm adequate water supplies for anticipated water demands and determine the impact of land use decisions on groundwater management. Government Code 65352.5 (a)(b).

We agree that coordination between the various water management and land use plans is critically important, and have expanded the list of plans that will need to be part of that coordination accordingly. For example, a legally compliant **housing element** requires an analysis that there are no known constraints to anticipated housing development, including lack of capacity for water service due to...regulations or regulatory actions, or supply and distribution decisions (65584.04 (d) (2)). A **Sustainable Community strategy** lays out the projected growth pattern, including anticipated densities throughout a region (Government Code 65080. (b)(2)(B)). Coordination with GSAs and understanding of groundwater sustainability plans is necessary to project realistic and sustainable growth and development patterns. Local Agency Formation Commissions, in developing municipal service reviews, must assess the present and planned capacity of public facilities, adequacy of public services...including needs or deficiencies related to...municipal and industrial water, and structural fire protection. (Government Code 56430 (a)(3)). Coordination with GSAs will facilitate this analysis.

The Department has already expressed its intention of providing **land use information** to local agencies; our suggested edit is intended to ensure consistency with that intent. If an Agency chooses not to use information provided by the department, it should be required to show that the alternative information is of similar or greater quality and detail.

In addition to the density of wells in the basin, an understanding of **well depth** is needed to identify where impacts may occur or be concentrated and influence land use decisions in that area.

We assume that the intent behind identifying the **well permitting** process is to determine whether an area imposes any land use or other restrictions, so recommend adding language that would elicit that information.

§ 354.10. NOTICE AND COMMUNICATION

Support

- Thank you for incorporating a requirement for a communications plan. We are quite pleased with this section and commend the Department for inclusion of all points, with a few slight modifications outlined below. This section is critically important to ensuring that the public participation requirements and goals of SGMA are adequately met by the Agency.

Suggestions

(a) The list of interested persons and parties established and maintained by the Agency.

Move from (b) to (e) (3): “A description of the interests of beneficial uses and users of groundwater in the basin, and the persons or entities representing those interests, and the nature of consultation with those interests.”

New bullet (b): Identification of California Native American tribes both within and outside the basin who are or may be impacted by the implementation of the GSP and details of outreach, communication and consultation efforts.

Revise bullet (e): A communication plan adopted by the Agency, and developed in a manner consistent with the best management practices recommended by the department or general industry standards and including the following information;

Revise (e) (1) An explanation of the Agency’s decision-making process and how ~~stakeholder~~ the input and public response of interested persons, beneficial users, and the public will be used.

Revise (e) (2) Identification of opportunities for ~~stakeholder~~ engagement interested persons, beneficial users, and the public.

New bullet (e) (6) The process for maintaining and updating the communications plan.

Discussion

The statute rather confusingly identifies **interested parties** (WC 10723.4) as those beneficial users identified in Water Code 10723.2, not including the list of **interested persons** created pursuant to 10723.4. For that reason, we recommend using the term interested persons when identifying requirements for public outreach and engagement

We think the discussion of how beneficial users of groundwater are engaged in development and implementation of the GSP is something that needs to be incorporated into the communications plan.

We’re surprised to see such limited guidance on **tribal outreach** and communication, given their authority over local land use and water management. GSPs must identify who they conduct outreach to, com-

municate with and consult with local tribes. Note that outreach, communication and consultation are different. Consultation is government to government communication for the purposes of high level information sharing and decision-making. For consultation guidelines contact the Tribes themselves to determine if the Tribe has their own consultation protocols. See the Karuk consultation policies found in the 2016 IRWM guidelines as an example.

Best practices for stakeholder engagement exist, and it would be helpful for the Department to include these in their BMP development later this year. We've suggested including a placeholder to that effect in the regulations.

While we used the term "**stakeholder**" in our Sept. 28 letter recommending development of a communications plan, we're concerned that its addition to SGMA's lexicon of public outreach and engagement entities – beneficial users, interested parties, interested persons – may add to the confusion of agencies trying to implement public outreach and engagement requirements.

Finally, it is important that Agencies understand that a communications plan, like the GSP itself, requires adaptive management to remain successful. We suggest including a temporal element in the requirements.

Subarticle 2. Basin Setting

§ 354.12. INTRODUCTION TO BASIN SETTING

Suggestion

This Subarticle describes the information about the physical setting and characteristics of the basin and current conditions of the basin that shall be included with each Plan. Information provided pursuant to this Subarticle shall be prepared by or under the direction of a professional geologist or professional engineer and the data gaps and level of uncertainty should be described.

Discussion

In our cover letter, we stated our concern that the regulations have no provision for quantifying uncertainty. This creates problems when understanding whether the sustainability goal, undesirable results, minimum thresholds and interim milestones have been set at appropriate levels and makes it difficult to ascertain plan adequacy. Moreover, a reduction in uncertainty in data and plan goals provides an important metric for evaluating progress towards sustainability. We've provided several suggestions for quantifying uncertainty and integrating it into the plan.

354.14 HYDROGEOLOGICAL CONCEPTUAL MODEL

Support

- The data requirements in this section are quite good and will provide a good basis for developing and quantifying undesirable results.

(C) (5) Surface water bodies with water supply diversions ~~greater than 10 acre-feet per year~~, storage facilities with a capacity of greater than 100 acre-feet.

New bullet (a) (5) A description of data gaps and uncertainty within the model and a plan for addressing each.

Discussion. For purposes of estimating infiltration, seasonal wetlands and small streams often have smaller diversions but may still play a significant role in groundwater recharge.

See discussion of **uncertainty** in §354.12 above

§ 354.16 BASIN CONDITIONS

Suggestion

(e) The extent, cumulative total, and annual rate of land subsidence, including maps depicting total subsidence. Each Agency shall utilize data available from the Department, as specified in Section 353.2, or the best available information, provided it is of the same or better quality than that provided by the Department.

(f) Identification of interconnected surface water systems and groundwater-dependent ecosystems within the basin. Each Agency shall utilize data available from the Department, as specified in Section 353.2, or the best available information, provided it is of the same or better quality than that provided by the Department

Discussion

See prior discussion of the quality requirements for alternative data sources in §354.8

§ 354.18 Water Budget

Support

- The requirement that every plan include a water budget is an essential step in determining and achieving sustainability.
- The commitment by the Department to provide key information in temperature, precipitation, land use, population and climate change, as well as providing the C2VSIM and IWFM models to Agencies to use to calculate their water budget.
- We commend the Department in providing flexibility and accommodating a range of technical capabilities while still maintaining strong and consistent data requirements.

Suggestions

Revised bullet (a) (4) All water demands by water source type and water use sector, including water demands for interconnected surface water and groundwater dependent ecosystems.

New bullet (a) (6) A quantification of surface water depletions using method consistent method described in the BMP document.

New bullet (a) (7) "The anticipated shortfall or surplus of total water supply to meet total water demand."

Revised bullet (b) (2) Historical water budget information shall be used to evaluate past surface water supply ~~reliability~~ availability and aquifer response to water supply and demand trends relative to water year type. The historical water budget shall include the following:

Revised bullet (b) (2) (A) A quantitative evaluation of the historical surface water supply ~~reliability~~ availability as a function of the historical planned versus actual annual surface water deliveries, by water year type, and based on the most recent ten years of surface water supply information

~~Delete: (b) (2) (C) A description of how historical conditions concerning hydrology, water demand, and surface water supply reliability have impacted the basins ability to achieve sustainable yield.~~

Revised bullet (b) (3) Projected water budgets shall be used to estimate future supply, demand, and aquifer response to Plan implementation, and to identify the uncertainties of these projected water budget components. The projected water budget shall utilize the following methodologies and assumptions for historical baseline and future conditions concerning hydrology, water demand and surface water supply ~~reliability~~ availability:

Revised bullet (b) (3) (C) Surface Water Supply ~~and Reliability~~: Projected water supply shall utilize the most recent water supply information as the baseline surface water supply over the planning and implementation horizon, while also evaluating scenarios of future water supply uncertainty associated with historical surface water supply ~~reliability~~ availability, and projections of future local land use planning, future population growth, and climate change

New bullet (b) (3) (D) Identify Uncertainty: Uncertainty associated with estimates of water demand will be identified by quantifying the margin of error in measurement technique or propagating error through a hydrogeologic conceptual model. Uncertainty associated with estimates of surface water supply will be identified by quantifying the range of historic and projected surface water supply availability.

Revised bullet (d) (3) Projected water budget information for population, population growth, future land use change and development to accommodate that growth, climate change, and sea level rise.

New bullet (d) (4) The uncertainty associated with both estimates of water demand and water supply (characterized as described in Section 354.18 (b)(3)(D) above).

Revised bullet (e) The Department shall provide the California Central Valley Groundwater-Surface Water Simulation Model (C2VSIM) and the Integrated Water Flow Model (IWFM) for use by Agencies in developing the water budget. Each Agency may choose to use a different flow model but shall provide raw data in a format that can be easily uploaded to C2VSIM or IWFM.

g) The Agency may utilize other data in addition to or in lieu of information provided by the Department if the Agency is able to demonstrate that the data is of ~~sufficient~~ better quality.

Discussion.

We recommend that the regulations specify that the water demands of groundwater-dependent ecosystems be included as this will be a new calculation in many basins.

We think it is important that a plan to achieve sustainability over time identify trends that indicate their progress in that direction; clear identification of the direction of **storage** in a basin seems like a straightforward measure.

Reliability is short-hand jargon in the water community for inter-annual variability in surface water allocations. It is not a helpful term here.

We fail to understand how a discussion of past problems contributes to a plan for the future. If past conditions impact current sustainable management efforts, that should be evident through the information requirements of these regulations. We recommend that this section be removed.

While **uncertainty** is referenced in § 354.18.b) 3), the term is not defined nor is direction provided on how it should be used. We've suggested language to address that and to tie that uncertainty analysis into all of the data requirements of the section.

Population growth spurs changes in land use to accommodate that growth. This information is readily available in **local general plans** and should be included in GSPs.

We understand that some groundwater agencies already use proprietary models. It would be appropriate to give them the choice of whether to make that model publicly available or to provide the data in appropriate form for uploading into common **open-source databases**.

See prior reference to alternative data requirements

§ 354.2 MANAGEMENT AREAS

Support

- This section properly acknowledges the need to manage different parts of the basin differently and provides a straightforward means for doing so.

Subarticle 3. Sustainable Management Criteria

§ 354.22. INTRODUCTION TO SUSTAINABLE MANAGEMENT CRITERIA

Suggestion

(e) The requirements for the Agency to establish measurable objectives and interim milestones necessary to achieve the sustainability goal in the basin ~~within 20 years~~ as soon as practicable but no later than 20 years from ~~of~~ Plan implementation and to maintain the sustainability goal over the planning and implementation horizon.

Discussion

See discussion of Section 1 on page 2

§ 354.24 SUSTAINABILITY GOAL

SUGGESTION

Each Agency shall establish a sustainability goal for the basin. The Plan shall include a description of the sustainability goal, including the information used to establish the goal, a discussion of the measures meant to ensure that the basin will be operated within its sustainable yield, and an explanation of how the sustainability goal will be achieved ~~within 20 years~~ as soon as practicable but no later than 20 years from ~~of~~ Plan implementation. The Agency will show that it has achieved the sustainability goal by demonstrating that the management and use of groundwater in the basin can be maintained through the planning and implementation horizon without causing undesirable results.

- (a) Sustainable yield shall be consistent with the water budget information required in Section 354.18.
- (b) Sustainable yield shall be defined as the allowable amount of groundwater extraction that avoids crossing minimum thresholds for all critical parameters and shall be expressed in acre-feet per year.
- (c) Sustainable yield shall also be expressed in relation to water supply by using a contour map that translates the allowable amount of groundwater extraction and estimated water supply into a range of groundwater elevations across the basin.

DISCUSSION

The concept of **sustainability** and the achievement of sustainable management are central to SGMA and must be a critical part of GSPs and their evaluation. One of the authorities given to the Department is to ensure that the sustainability goal of one basin does not adversely affect the ability of another basin to achieve sustainability (Section 10733 (c)). For both these reasons, the department must ensure that it has sufficient information about the Sustainability Goal to allow it to evaluate the Goal for adequacy.

§ 354.26. UNDESIRABLE RESULTS

SUGGESTION

Each Agency shall describe the processes and criteria relied upon to define undesirable results applicable to the basin and how beneficial users, interested persons and the public were engaged in their development. The Agency shall use sufficient and credible information to define the undesirable results for the basin. If data gaps exist which make it difficult or uncertain to determine if undesirable results are occurring or will occur in the future, the Agency shall identify those data gaps and describe a process and time line for filling the data gaps Undesirable results occur when significant and unreasonable effects for any of the critical parameters are caused by groundwater conditions occurring throughout the basin on or after January 1, 2015.

Revised bullet (a) (3) A description of known or projected effects on the beneficial uses and users of groundwater, and other potential effects that would occur or are occurring and how these would be addressed. If effects on beneficial uses and users of groundwater are unknown or uncertain, the Agency must describe methods and a timeline for determining the effects or for reducing the uncertainty.

New bullet (a) (5); A list of current compliance obligations, including permits, orders, instream flow requirements, licenses and other obligations.

Discussion

The relationship of **beneficial users and users** to undesirable results is a key factor in setting these levels. The regulations need to ensure that this important connection is made in GSP development.

Any discussion of undesirable results should incorporate **existing obligations** that affect sustainable management.

See prior discussion of uncertainty in § 354.12.

§ 354.28. MINIMUM THRESHOLDS

Suggestions

Each Agency shall establish minimum thresholds for each critical parameter based on the conditions under which the Agency determines that those critical parameters are significant and unreasonable, as described in Section 354.26. The minimum threshold refers to the point at which conditions for a given critical parameter are significant and unreasonable and, therefore, constitute an undesirable result. Minimum thresholds must be set so as to avoid causing undesirable results. Therefore, where there are data gaps or high levels of uncertainty, minimum thresholds will take a conservative approach.

Revised bullet (a) (1) The information and criteria relied upon in establishing minimum thresholds for each critical parameter. The justification for the minimum threshold shall be supported by information from the hydrogeologic conceptual model, basin conditions, water budget, the level of uncertainty around water budget components and other data or models as appropriate

New bullet (a) (2) An estimate of the maximum amount of groundwater extraction in acre-feet per year that could occur without crossing each minimum threshold, incorporating the uncertainty in water supply based on the range of historic and projected water supply availability.

Revised, renumbered bullet (a) (23) A description of the interrelationship between critical parameters that explains how the minimum threshold for each critical parameter will not cause undesirable results for any other critical parameter. This description will include estimates of the maximum amount of groundwater extraction for all critical parameters as described in Section 354.28 (a)(2) above, and describe how a maximum allowable amount of groundwater extraction was chosen for the basin, as a whole, that does not cross any minimum thresholds.

Revised bullet (a) (4~~5~~) How minimum thresholds will affect the interests of beneficial uses and users of groundwater, including potential impacts and how the Agency will address those impacts.

Revised bullet (a) (5~~6~~) State, federal, ~~or~~and local standards that relate to the critical parameter for which the minimum threshold has been established cannot violate.

New bullet (a) (7) For any adverse impacts deemed either insignificant or reasonable and for which mitigation has not been provided, justification to support that decision shall be provided.

Revised bullet (b) (1) (C) Management of extractions and recharge to ensure that chronic lowering of groundwater levels or depletion of supply during periods of drought is offset by increases in groundwater levels or storage during other periods. If sufficient data to understand recharge is not available, the Plan shall set conservative minimum thresholds by assuming the lowest annual water supply availability based on historic and future projections of water supply availability for purposes.

New bullet (b) (1) (D) Identification of land uses and property interests that have been affected or are likely to be affected by chronic lowering of groundwater levels in the basin, including an explanation of how those uses and interests were determined and considered, and the rationale for how minimum thresholds were established in light of those effects.

New bullet (b) (1) (E) Identification of safe yield, as defined at common law, of the basin. The minimum threshold shall not conflict with safe yield in order to prevent modification of water rights.

Revised bullet (b) (4) Degraded Water Quality. The minimum threshold for degraded water quality shall be the significant and unreasonable degradation of water quality, including

- (A) The migration of contaminant plumes that impair water supplies, based on the number of supply wells, a volume of water, or a location of an isocontour that exceeds concentrations of constituents determined by the Agency to be of concern for the basin.
- (B) Changes in water quality associated with other undesirable results, such as Reduction of groundwater storage that increases the concentration of a contaminant.
- (C) Exceedances in existing water quality standards or objectives identified in the relevant basin plan

New bullet (b) (5) (C) To the extent that inelastic land subsidence is allowed by a Plan, the permanent loss of water storage and impacts to the natural and built environment will be assessed and a fund will be set up to finance the replacement of water and the replacement of natural and built infrastructure that will be affected.

Revised bullet (b) (6) (A) The location, quantity, and timing of depletions of interconnected surface water. If sufficient data to quantify depletions of interconnected surface water is not available, the Plan shall set a conservative minimum threshold following methods described in the BMP manual describe how the Agency will acquire sufficient information no later than the first five-year assessment.

Revised bullet (b) (6) (B) A description of the groundwater-surface water model used to quantify surface water depletion. If a groundwater-surface water model is not used to estimate surface water depletion, the Plan shall identify and describe an equally effective method or tool to

accomplish this requirement, ~~or identify provisions for developing a groundwater surface water model capable of quantifying surface water depletion no later than the first five-year assessment.~~

Revised bullet (d) An Agency, ~~after consultation with the Department~~ may establish a representative minimum threshold for groundwater elevation to serve as the minimum threshold value for multiple critical parameters, as appropriate. The Agency shall demonstrate that the representative minimum threshold is a reasonable and effective surrogate for multiple individual minimum thresholds and is supported by clear and convincing evidence in the Plan.

Discussion

As is obvious from our lengthy edits, this section is of immense interest to our organizations. The proper identification of minimum thresholds is vital to successful and sustainable groundwater management. Our comments reflect our interest in assuring that

- uncertainty plays a role in setting minimum thresholds in order to ensure that inadequate data or a poor understanding of the basin characteristics don't cause undesirable results.
- the impacts of undesirable results on adjacent basins and beneficial users are addressed. This is a necessary corollary to WC 10727.2 (b) (4). The plans must provide sufficient information to allow the public and the Department to evaluate impacts as a critical parameters reach its minimum threshold
- Existing compliance obligations from other laws, permits and regulations are incorporated into the development of minimum thresholds.
- the setting of minimum thresholds does not disproportionately impact those who are not able to participate in decision-making.
- Sufficient guidance is provided for the establishment each undesirable result so that the Agency, department, beneficial users and the public understand how it was developed
- That minimum thresholds are, at minimum, set above the basin's safe yield, which is the common law minimum where pumping meets natural recharge levels. While sustainable yield will almost certainly be at a higher water level, it is possible that some basins are operating at or below a safe yield rather than a sustainable yield. Making safe yield a minimum requirement also protects from a condition of mutual prescription which could lead to the modification 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.

§ 354.30. MEASURABLE OBJECTIVES

Support:

- We support bullets (b), (c), (e) that encourage aspirational objectives and promote a tone of good stewardship.
- Generally, this section is strong.

Suggestion

Each Plan shall include one or more measurable objectives for each critical parameter that has an established minimum threshold. The measurable objectives shall ensure that the basin is managed to avoid undesirable results ~~within 20 years~~ as soon as practicable but no later than 20 years from ~~of~~ Plan implementation and groundwater is sustainably managed over the planning and implementation horizon.

(e) Each Plan shall include interim milestones for each measurable objective, in increments of five years, which outline a reasonable path to attaining the measurable objectives ~~within 20 years~~ as soon as practicable but no later than 20 years from ~~of~~ Plan implementation. Interim milestones shall be expressed numerically in the same units as the measurable objective.

Discussion

See discussion under Article 1, page 2

Subarticle 4. Monitoring Networks

§ 354.32. INTRODUCTION TO MONITORING NETWORKS

Suggestion

This Subarticle describes the monitoring network that shall be developed for each basin, including monitoring objectives, monitoring site summary, monitoring frequency, monitoring protocols, and data reporting requirements. The monitoring network shall promote the collection of data ~~of sufficient quality, frequency, and from sufficient locations~~ in order to adequately characterize surface water and groundwater conditions in the basin, evaluate management actions, and assess progress toward achieving the sustainability goal

Discussion

These qualifiers are wholly unnecessary in an introductory section that has no force of law. We understand the department's interest in promoting flexibility, but plain language can convey that interest equally well.

§ 354.34. MONITORING NETWORK

Support:

- We found the monitoring requirements outlined in this section very thorough, yet flexible enough to allow Agencies who are just beginning to manage their basin additional time to improve their monitoring programs.

Suggestion

Revised bullet (g) Each Agency will incorporate best management practices developed by the department. Alternative practices used by an Agency must be at least as effective as those developed by the Department. The best management practices developed by each Agency shall include a description of technical standards, data collection methods, and other procedures or protocols pursuant to Water Code Section 10727.2(f) for all monitoring sites or other data collection facilities to ensure that the monitoring network utilizes on the comparable data and methodologies. Best management practices related to construction and completion standards for wells or other monitoring sites developed for this purpose shall apply prospectively.

Discussion

The Department should signal its intention to provide guidance to agencies on the development of monitoring networks through the development of Best Management Practices.

§ 354.38. ASSESSMENT AND IMPROVEMENT OF MONITORING NETWORK

Support:

- We support bullet (c) because it requires data gaps to be addressed quickly in Plan implementation.
- We are pleased with the adaptive management aspects of this section, especially in bullet (d).

Suggestion

Each Agency shall evaluate the monitoring network and include an assessment in the initial Plan and each five-year evaluation, including an assessment of uncertainty, whether there are data gaps that could affect the ability of the Plan to achieve the sustainability goal, and how the uncertainty will be reduced within the first five years of the plan implementation.

New bullet (d) (5) If there is a high level of uncertainty related to water budget components, critical parameters, or undesirable results it shall be reflected in conservative minimum thresholds.

Discussion

See prior discussions of uncertainty in §354.12

§ 354.40. REPORTING MONITORING DATA TO THE DEPARTMENT

Suggestion

New Bullet (c): all data submitted to DWR shall be uploaded in an electronic format determined by the department.

Discussion

The department has expressed its intent to require electronic data submission. The proposed language is consistent with that intent.

Subarticle 5. Projects and Management Actions

§ 354.44. PROJECTS AND MANAGEMENT ACTIONS

Support:

- We agree pleased with the requirement for a contingency plan outlined in (b)(1), (2), (4), (5), with a few modifications to make the requirements more specific. A contingency plan commits the Agency to take specific actions when a Plan falls short of meeting its goals and also allows the Department to provide greater flexibility in plan requirements because it has the certainty of knowing that the Agency is prepared to take stronger action if needed.

Suggestion

Revised bullet (a) Each Plan shall include a description of the projects and management actions adopted to meet interim milestones and measurable objectives and prevent ~~undesirable results~~ crossing minimum thresholds. The description shall include the following:

Revised bullet (a) (2): A summary of the permitting and regulatory process required for each project and management action and how the Agency is coordinating with the permitting and regulatory authorities responsible for ensuring the project and action is implemented.

New bullets (a) (8) and (9)

(8) A description of the agency responsible for the management action or project.

(9) A description of the county and city land use, well permitting projects and management actions that support the plan.

New bullet (b) For each measurable objective and interim milestone, the Plan shall describe projects or actions that will be implemented in the event that groundwater conditions have not adequately responded to measures described in the Plan, or if the measures are no longer feasible.

Revised bullet (2) The Plan shall describe emergency contingency projects or actions that will be implemented in the event that groundwater conditions in the basin ~~have passed~~ are nearing a minimum threshold or that undesirable results have occurred or are imminent. Emergency contingency projects or actions shall be designed to achieve immediate

Revised bullet (c)(2): The Plan shall describe emergency contingency projects or actions that will be implemented in the event that groundwater conditions in the basin ~~have passed~~ are likely to pass a minimum threshold or that undesirable results ~~have occurred or are imminent~~ likely to occur before the next annual report to the Department. Emergency contingency projects or actions shall be designed to achieve immediate results such that the Agency is able to demonstrate that the emergency has been abated by or before the next annual report.

Revised bullet (b) (3) The Plan shall describe emergency contingency projects or actions that will be implemented in the event that groundwater conditions in the basin *are nearing a* minimum threshold or that undesirable results have occurred or are imminent. *Basins that have a high level of uncertainty associated with their water budget components will implement contingency plans when they are within one standard deviation of the minimum threshold.* Emergency contingency projects or actions shall be designed to achieve immediate results such that the Agency is able to demonstrate that the emergency has been abated by or before the next annual report.

New bullet (b) (4) *(C) For each triggered action, the Plan will provide a monitoring plan or schedule to show how the impact of the action will be measured. At a minimum, a triggered action to reverse declining groundwater levels will include the collection of metered extraction data.*

Discussion

Since **interim milestones** are a regulatory trigger in a GSP it is appropriate to tie actions to these required outcomes

Simply recounting all of the processes involved in plan implementation is not a substitute for **active coordination** between entities.

Identifying the **responsible agency** for implementation a management action is common practice, and should be followed here.

Our organizations think that reinforcing the **coordination** between local land use and water management agencies is key to a successful plan

The contingency plan cannot be triggered at the point of failure – which is when a plan must legally be referred the Board – but must be **triggered** before failure. It might be useful to suggest a standard approach. Public water systems are required to conduct increased monitoring and customer notification at 50% of the drinking water standard, and most choose to treat, decommission, or blend a contaminated source once it reaches 80-85% of the standard in order to avoid accidentally serving water exceeding a drinking water standard.

If a contingency plan is triggered, its implementation should include increased monitoring and reporting requirements – for example individual well extraction data.

Article 6. Evaluation and Assessment

§ 355.2. DEPARTMENT REVIEW OF INITIAL ADOPTED PLAN

Support

- We support the regulation (c) for a public comment on the adopted plan, allowing another opportunity to make any necessary changes to the plan.

Suggestions

Revised bullet (e) (1) Adequate. The Department has determined that the Plan satisfies the goals of the Act and is in substantial compliance with this Subchapter.

New bullet (f) (4). The Department's notification of conditional adequacy and recommendations for improvement, as well as the amended plan submitted to the Department, shall be posted on the website of the Agency and the department no later than 10 days after receipt.

Discussion

§ 355.4. CRITERIA FOR PLAN EVALUATION

Support: the criteria listed for plan evaluation are good; they just need some metrics.

Suggestion

Revised Introduction. The Department shall evaluate a Plan to determine whether the Plan has the overall effect of achieving the sustainability goal for the basin, complies with the Act, and is in substantial compliance with this Subchapter. ~~Substantial compliance means that the Agency has attempted to comply with these regulations in good faith, that the supporting information is sufficiently detailed and the analyses sufficiently thorough and reasonable, in the judgment of the Department, to permit evaluation of the Plan, and the Department determines that any discrepancy would not materially affect the ability of the Agency to achieve the sustainability goal or of the Department to evaluate the likelihood of the Plan to attain that goal.~~

Revise bullet (a): A An initial Plan will be deemed inadequate unless it satisfies all of the following conditions:

Revised bullet (b) The Department shall evaluate a Plan's stated that satisfies the requirements of Subsection (a) to determine whether the Plan is likely to achieve the sustainability goal for the basin. sustainability goal and sustainable yield to ensure that they are appropriate and adequate, and will not jeopardize the achievement of sustainable groundwater management statewide. When evaluating ~~whether a Plan is likely to achieve the sustainability goal the sustainability goal and sustainable yield,~~ the Department shall consider the following:

New bullet (b) (1) Whether the assumptions and findings used to set the sustainability goal and sustainable yield, including the water budget and minimum thresholds, are accurate and reasonable.

New bullet (b) (2) Whether the sustainability goal and sustainable yield adequately incorporate uncertainty in both water budget components and proposed management actions

New bullet (c) The Department shall evaluate whether the Plan is likely to achieve the sustainability goal for the basin. When evaluating whether a Plan is likely to achieve the sustainability goal, the Department shall consider the following:

Renumber bullets (b) (1) – (b) (11) to (c) (1) – (c) 11

Revised bullet (b) (2) (2) The quality of information, data, monitoring, and scientific methods upon which the Plan relies, whether it meets the requirements of this chapter and whether the level of uncertainty calls into question the ability of the plan to identify and avoid minimum thresholds

Revised bullet (b) (3) ~~Whether the assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones, are reasonable and supported by the available evidence.~~

Revised bullet (b) (4) Whether the interests of the beneficial uses and users of groundwater have been adequately considered and addressed.

Discussion

Substantial Compliance (noun): *compliance with the substantial or essential requirements of something (as a statute or contract) that satisfies its purpose or objective even though its formal requirements are not complied with. (Source: Miriam Webster's Dictionary of Law)*

We have grave concerns about the introduction of the term “substantial compliance” into the regulations. Its use is both inappropriate and unnecessary, as statute very clearly identifies the role of the department in evaluating and assessing GSPs. The department’s is required to determine:

- whether a groundwater sustainability plan adversely affects the ability of an adjacent basin to implement their groundwater sustainability plan or impedes achievement of sustainability goals in an adjacent basin. (Water Code Section 10733 (c))
- whether a groundwater sustainability plan is inadequate or that the groundwater sustainability plan is not being implemented in a manner that will likely achieve the sustainability goal. (Water Code Sections 10735.2 (a)(3), 10734.2 (a)(5)(i))

Inserting any new term into the complex vocabulary of SGMA is problematic. Use of the term “substantial compliance” creates even more problems because it already has a legal meaning and common usage in contract law that is not appropriate in this context. Language matters; when developing regulations, every term is assumed to have meaning. Therefore the use of this unnecessary term is likely to generate confusion and conflict.

What is an “adequate” plan? The General Principles (§350.2(d)) lay out a concise list of requirements for plan adequacy, including the allowance of additional time for addressing data gaps. The draft regulations are deficient in criteria for determining whether a plan is being implemented in a manner

that is likely to achieve the sustainability goal. The use of the word “likely” in this context already provides the department with discretion in making a determination.

In fact, the draft regulations have introduced another term to create a buffer between adequacy and inadequacy; conditionally adequate. This term has been clearly defined and provides a specific and finite window to address recommendations by the department. It’s not clear that another term is needed. And in fact, the common usage of the term substantial compliance (see top of page) creates additional concerns because of its implication that plans deficient in multiple areas could still be determined to be adequate. Using the definition above and in case law, even the department’s pass/fail plan components in 355.4 (a) 1-4 could be considered advisory

Rather than try to shove a square peg into a round hole, we recommend that the department abandon this term and instead integrate uncertainty into plan development and evaluation. This provides the cushion the department was seeking and allows GSAs to quantify problems in their plans without necessarily triggering a finding of inadequacy. This would require that that uncertainty be used to create a margin of safety in the development of minimum thresholds. Using uncertainty also allows for plan improvement over time as better data and plan implementation reduce uncertainty and increase the likelihood that the sustainability goal can be achieved.

To conclude, the regulations and the SGMA statute provide the department with flexibility in assessing the adequacy of GSPs and Sustainability Goals:

- 1) The allowance of additional time to address data gaps identified during plan development
- 2) The use of uncertainty as a metric that is expected to decrease through plan implementation
- 3) The use of conditional adequacy to provide a local Agency with the opportunity to address specific shortcomings
- 4) The use of contingency plans that will allow a local Agency to try out an easier path to sustainability while providing an assurance that stronger measures will be used if the basin doesn’t respond as hoped.

§ 355.6. PERIODIC REVIEW OF PLAN BY DEPARTMENT

New Bullet (b) (9): *The Agency has eliminated significant data gaps and reduced uncertainty associated with basin conditions, water budget, minimum thresholds and management actions.*

New Bullet (b) (10) *Whether Plan provides an updated communications plan and has responded to input from the public, beneficial users and interested persons.*

Discussion

As discussed elsewhere, the identification and reduction of **uncertainty** over time provides a strong metric to measure a basin’s progress towards achieving its sustainability goal. This metric should be part of the department’s review. Likewise, **communications** efforts must be regularly renewed to ensure their continued efficacy

§ 355.10 RESOLUTION OF CONFLICTS

Suggestion

Delete this section in its entirety

Discussion

We share the interest of the department in ensuring that conflicts within and among basins that could delay the timely development, adoption and implementation of a GSP are resolved in a swift and equitable manner, and would support efforts to provide such assistance to GSAs upon request. However, SGMA does not provide the department with the power to compel mediation. Basins that cannot whose conflicts cannot be resolved have two options; litigation that triggers an adjudication process, or a finding of inadequacy that triggers review by the State Board.

Article 7. Reports, Assessments, and Amendments

Subarticle 2. Periodic Evaluation of Plan

§ 356.4. ANNUAL REPORT

Support:

- We think the metrics for evaluation are appropriate and comply with the statute.

Suggestion

(b) (2) Annual aggregated data identifying groundwater extraction for the preceding water year. Data shall be collected from the best available measurement methods and shall be presented in electronic format determined by the department in a table that summarizes groundwater extractions by water use sector, location of extractions, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.

New bullet (d): (Report on the status of any new and/or continuing undesirable results.

Discussion

We know that the department intends to produce on-line forms for **electronic reporting**, but wanted to clarify that intent here.

The avoidance of **undesirable results** is a key indicator of sustainability and should be included in annual reporting.

§ 356.10 AGENCY EVALUATIONS AND ASSESSMENT

Suggestion:

(a) A description of each of the measurable objectives and current groundwater conditions for each critical parameter relative to interim milestones and minimum thresholds as well as any changes in undesirable results.

(f) (4) Elements of the Plan, including, but not limited to, the hydrogeological conceptual model, groundwater conditions, plan area, management areas, water budget, or the identification of undesirable results and the setting of minimum thresholds and measurable objectives, shall be reconsidered and revisions proposed, if necessary, for the ~~second~~ current or next five-year assessment by the Department.

New bullet (k) (renumber current bullet k); summary of coordination that occurred between the Agency and land use and water management agencies in the basin.

New bullet (I); *A description of any changes to the Communications Plan, including but not limited to an update on the identification of beneficial users, interested persons and the public and how they have been and will continue to be engaged in implementation of the communications plan*

Discussion

The avoidance of **undesirable results** is a key measure of sustainability and should be included directly in reporting, not just through reporting on the status of minimum thresholds.

Plan area as described in these regulations encompasses critical land use and planning information that needs to be regularly updated in order to ensure coordination with GSPs. Similarly, we suggest an additional bullet identifying **coordination** efforts in the basin

Like any other area of a GSP, the **Communications Plan** needs to be regularly reviewed and updated. Stakeholders change, methods for communication improve, and changes in groundwater conditions may warrant additional or targeted outreach.

Article 8. Coordination Agreements

Support

- This section clearly reflects the requirement of SGMA that basins be managed cooperatively even when more than one GSA is formed.
- The data requirements for Intrabasin agreements, particularly the requirement for a single point of contact between the basin and the department, seem appropriate

§ 357.2. INTERBASIN AGREEMENTS

Suggestion

Revised bullet (a)(2): For each basin, a list of all Agencies or other public agencies or other entities with groundwater management *and land use* responsibilities.

Discussion

Land use issues are magnified when added to coordination between basins. Our edits are meant to address the need to incorporate this important issue.

Article 9. Alternatives and Adjudicated Areas

§ 358.4. ALTERNATIVES TO GROUNDWATER SUSTAINABILITY PLANS

Suggestion

New bullet *(h) The Department shall post the alternative to a plan on its Internet Web site for public review within 20 days of receipt.*

Renumbered (~~h~~_i) Any person may provide comments to the Department regarding an alternative in a manner consistent with Section 353.8.

Discussion

Our proposed edits ensure consistency with other types of submittals in the draft regulations.