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California Department of Water Resources
Attn: Lauren Bisnett, Draft GSP Emergency Regulations Public Comment
P.O. Box 942836
Sacramento, CA 94236

Via email to: **sgmps@water.ca.gov**

RE: Draft GSP Emergency Regulations Public Comment

The Sacramento Groundwater Authority (SGA) appreciates the opportunity to comment on the **Draft Emergency Regulations for Groundwater Sustainability Plans and Alternatives** under the Sustainable Groundwater Management Act (SGMA). The California Department of Water Resources is to be commended on the extensive efforts to solicit stakeholder input in the development of the regulations. SGA staff was closely involved in a number of aspects of the advisory process. SGA is the groundwater sustainability agency for a portion of the North American Subbasin.

SGA has been managing the groundwater basin in Sacramento County north of the American River since 1998. During that time, groundwater levels in the basin, which had declined over several prior decades, have recovered significantly. The investment in facilities by local water providers to establish the American River Basin Conjunctive Use Program has contributed to the health of the basin, which helped serve the region's water needs during the recent drought. Notably, Assemblymember Roger Dickinson, one of the authors of SGMA, referred to the effective management instituted by SGA as a model for what was needed throughout the state.

As the manager of a basin that has taken actions to achieve sustainability over the last two decades, we are concerned with the overwhelming scope of the requirements for GSPs in the draft regulations. Fully complying with the draft regulations as written would be extremely costly, with little significant improvement in the basin's sustainability. The regulations need significant modification to address the following concerns:

- The regulations go beyond both the language and intent of SGMA in a number of areas.
- The regulations call for data, information, and analysis that go far beyond what will generally be needed to plan for and demonstrate groundwater sustainability.
- DWR has not provided adequate justification of the purpose and need for each element prescribed in the draft regulations.

- Through excessively prescriptive requirements, the regulations undermine local control and flexibility that was intended to be the foundation of SGMA.
- Some of the requirements of the regulations may contribute to conflict rather than collaboration in managing a basin.

It's important to note three significant areas included in the regulations that should be retained and enhanced.

- In section 355.4, the regulations introduce the concept of "substantial compliance" as the standard for evaluation of Plans. This provision has great merit and properly implemented would help to ensure that only the work necessary in each basin be required.
- The identification of "management areas" is a useful concept in the regulations. Optimizing management by tailoring monitoring, thresholds, and actions to subareas of a basin will improve the effectiveness of GSAs.
- The "conditionally adequate" designation for plan review would recognize progress made in GSP development. Recognizing and assisting local efforts, rather than state intervention, will be the path to sustainability in most basins.

One of the greatest challenges to developing appropriate regulations to implement SGMA is the aggressive time schedule. The legislation recognized that achieving sustainability will be a long term effort in some basins. DWR and the Water Commission should recognize that getting the regulations right is a higher priority than adopting these comprehensive draft regulations by June 1, 2016. We highly recommend a drastically reduced regulatory framework be adopted, with the opportunity to modify it over time.

The specific comments provided herein (attached) suggest a number of modifications that will help to address our concerns. The comments and specific proposed modifications are organized according to the nine articles of the regulations. Examples are given in the comments, for the sake of brevity, while specific recommendations for modifying the language are presented comprehensively.

We look forward to working with DWR and the California Water Commission to finalize an emergency regulations package that will form the basis of groundwater sustainability for California over the next two decades. Please contact me at (916) 967-7692 if you have any questions.

Sincerely,

John Woodling
Executive Director
Sacramento Groundwater Authority

Sacramento Groundwater Authority
Specific Comments on Draft Emergency Regulations for
Groundwater Sustainability Plans and Alternatives

ARTICLE 1. Introductory Provisions

Section 355.4 introduces "substantial compliance" as the standard for review of plans. That is, rather than using the regulations like a checklist, the preparer and reviewer will consider what data and information are specifically needed to demonstrate sustainability. We believe this is the intent of SGMA, and that this substantial compliance standard should be fundamental to the entire regulation. This modification will help to ensure that local Groundwater Sustainability Agencies (GSA) have the flexibility necessary to develop and implement Groundwater Sustainability Plans (GSP) successfully.

In Section 350.2 and elsewhere throughout the draft regulations, DWR shows a bias toward a single plan for a basin. This is in strict opposition to the intent of SGMA. The regulations should reflect that "a Plan or Plans" may satisfy basin requirements. Similarly, there are many instances in which the information requirements for a GSP refer to "the basin." Where GSAs are preparing a GSP for only a portion of the basin, these references should be to the "Plan area." Basinwide sustainability will be addressed through coordination agreements among multiple GSAs.

Similarly, the regulations overinterpret the language in SGMA relating to "adversely affecting an adjacent basin." While SGMA requires an assessment of adverse impacts on an adjacent basin, it does not preclude such impacts occurring nor cite such an impact as a basis for state intervention. Scenarios can be imagined where the actions a GSA takes to achieve sustainability may be legal and appropriate, but still impact an adjacent basin.

The regulation refers here and elsewhere to "20 years of plan implementation." This language should be modified to reflect the possibility of time extensions that is included in SGMA.

Suggested modifications to Article 1 to address these concerns are provided below.

§ 350.2. General Principles
Consistent with the State's interest in achieving groundwater sustainability through local management and the avoidance of undesirable results within groundwater basins, the following general principles shall guide the Department in the implementation of these regulations.

(a) The Plan or Plans must achieve the sustainability goal for the entire basin within 20 years of Plan implementation ~~without adversely affecting~~, or as extended with the ~~ability~~approval of ~~an adjacent basin to implement their Plan or achieve their sustainability goal~~the department.

(b) The Plan shall describe a process for the collection, interpretation, and reporting of sufficient ~~reliable~~ information to permit the Department to evaluate the adequacy of the Plan.

(c) The Department shall evaluate the adequacy of all Plans, ~~including subsequent modifications to Plans, and~~Plan amendments, reports and periodic evaluations based on a standard of substantial compliance ~~standard as described in Article 6, provided that the goals of~~ with the Act ~~are satisfied.~~and this subchapter. Notwithstanding the provisions of this subchapter, the Department may waive any specific requirement under this subchapter where it determines that such waiver is consistent with the intent of the Act. An agency may request a waiver, or the Department may waive any specific requirement based on its own initiative.

(d) The Department may determine that ~~an initial~~ a Plan is adequate, notwithstanding identified deficiencies, provided that the Plan contains sufficient ~~credible~~ information to support reasonable interpretations about basin conditions and describes all of the following:

(1) A process for prioritizing and filling data gaps throughout the course of Plan implementation.

(2) The specific actions and projects that will bring the Plan into compliance ~~within minimum standards and best management practices~~ on a reasonable schedule.

(3) A definite course to achieve the sustainability goal within 20 years of Plan implementation, or as otherwise extended with the approval of the Department.

(4) The institutional system that will maintain sustainability over the planning and implementation ~~-~~horizon.

(e) Adaptive management may be employed as a tool for improving local and regional management of the state's groundwater basins within 20 years of Plan implementation and over the planning and implementation horizon.

(f) The processes for an Agency to develop and submit a Plan for evaluation by the Department, and for Department evaluation, as described in these regulations, ~~are made applicable~~apply to multiple Agencies developing multiple Plans for a basin and to Alternatives, as described in Article 9.

~~(g) The Department may evaluate a Plan at any time, for compliance with the Act and this Subchapter.~~

~~(h)~~(g) Unless otherwise noted, all section references in these regulations refer to this Chapter.

Insert Section 350.4 as follows:

§ 350.4. Local Management of Basins and Plans

(a) In enacting the Sustainable Groundwater Management Act, the Legislature stated its intent "[t]o manage groundwater basins through the actions of local government agencies to the greatest extent feasible, while minimizing state intervention to only when necessary to ensure that local agencies manage groundwater in a sustainable manner."

(b) Consistent with the Legislature's intent, an Agency may vary or omit from its Plan or related reports any provisions in Articles 3, 5 or 7 if the Agency determines, based on findings supported by evidence, that the inclusion of the provision or provisions would not materially contribute to the Agency's ability to manage the basin to achieve the sustainability goal and that the Plan is in compliance with the Act.

(c) Consistent with the Legislature's intent, the Agencies that are parties to a coordination agreement may vary or omit from their agreement or related reports any provisions in Article 8 of these regulations if all of the Agencies determine, based on findings supported by evidence, that the inclusion of the provision or provisions would not materially contribute to the Agencies' ability to manage the basin to achieve the sustainability goal and the Plan is in compliance with the Act.

(d) The Department shall review the determinations and supporting evidence of the Agency or Agencies under subdivision (b) or (c) as part of its review of the Plan or Plans under Section 355.2.

ARTICLE 2. Definitions

To support the proposed changes in Article 1, a clear definition of "substantial compliance" is needed.

The concept of an "initial plan" seems unnecessary. In reality, plans will likely evolve over time as new information is developed and groundwater conditions change. The idea that an initial plan will be somehow distinct from future iterations, or that the regulations would apply differently is confusing and probably unnecessary.

Some definitions, such as "NAD83" and NAVD88 support overly prescriptive requirements in later Articles of the regulation and should be deleted.

Modify Section 351 as follows:

~~"NAD83" refers to the North American Datum of 1983 computed by the National Geodetic Survey.~~

~~"NAVD88" refers to the North American Vertical Datum of 1988 computed by the National Geodetic Survey.~~

~~"Initial Plan" refers to the first version of a Plan developed by an Agency and evaluated by the Department.~~

Add definition for:

"Substantial compliance" means the Plan meets the content requirements of the Act and contains sufficient data and analysis to support the Agency's finding that the sustainability goal will be achieved, 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.

ARTICLE 3. Technical and Reporting Standards

Throughout, the regulations tend toward being overly prescriptive. Too much detail is included in terms of both "what to do" and "how to do it." This has a number of implications for sustainable groundwater management. Where excessive information is required, GSAs will expend unnecessary resources on data collection and reporting that does not substantially contribute to basin sustainability. Similarly, by being overly prescriptive on methodology and practices, the regulations would lead to a cost to redo work already performed and would preclude the use of tools and procedures that may be better for a specific basin, but don't satisfy the regulations.

The inclusion of "best management practices" in the regulations is inappropriate. SGMA had a clear distinction between the minimum standards to be defined in regulation and best management practices. All reference to BMPs should be modified to refer to agency practices and procedures.

The survey accuracy and survey datum requirements are a good example of the overly prescriptive nature of the regulations. The accuracy of location and elevation of monitoring points should be based on the use of specific data in a specific basin. As is, the regulations could result in significant additional work that doesn't contribute to basin sustainability.

Suggested modifications to Article 3 to address these concerns are provided below.

§ 352. Introduction to Technical and Reporting Standards

This Article describes the use of ~~best management practices and~~ minimum standards for monitoring sites and other technical matters appropriate to develop or monitor the implementation of a Plan.

§ 352.4. ~~Best Management~~Agency Practices and Procedures

(a) Each Plan shall include ~~best management~~ practices and procedures 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.~~

(b) ~~Best management practices~~Practices and procedures shall be reviewed at least every five years as part of the periodic evaluation of the Plan and modified as necessary.

~~(c) If best management practices developed by the Department are modified, an Agency shall not be required to amend the Agency's best management practices until the next five-year review.~~

§ 352.6. Data and Reporting Standards

(a) The following reporting standards apply to all information required of a Plan, unless otherwise indicated:

(1) Water volumes shall be reported in acre-feet.

(2) Groundwater, surface water, and land surface elevations shall be measured and reported in feet relative to ~~NAVD88, or as modified, to an accuracy of at least 0.1 feet~~a common datum for the basin, to an accuracy defined in the Agency practices and procedures that is appropriate to the purpose of each data type.

(3) Reference point elevations shall be measured and reported in feet relative to ~~NAVD88, or as modified~~a common datum for the basin, to an accuracy defined in the Agency practices and procedures that is appropriate to the purpose of ~~at least 0.5 feet or the best available information~~the data type, and the method of measurement described.

(4) Geographic locations shall be reported in GPS coordinates by latitude and longitude relative to ~~NAD83, or as modified~~a common datum for the basin, in decimal ~~degree to five decimal places, and a minimum~~degrees To an accuracy defined in the Agency practices and procedures that is appropriate to the purpose of ~~30 feet~~each data type.

(b) The following minimum standards apply to wells and monitoring sites, unless otherwise indicated:

(1) All monitoring sites shall include the following information, as appropriate:

(A) A unique site identification number and narrative description of the site location.

(B) A description of the type of monitoring, type of measurement, and monitoring frequency.

(C) Location, elevation of the ground surface, and reference point, including a description of any reference point.

(D) A description of the standards used to install the monitoring site, and identification of any sites that do not conform to ~~best management~~Agency practices and procedures.

(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.~~

(3) Wells used to monitor groundwater conditions shall be constructed according to standards described in DWR Bulletin 74-90, as amended, if practicable, and shall include the following identifying information presented in ~~both~~ tabular ~~and geodatabase-compatible shapefile~~ form, if available:

(A) CASGEM well identification number and, if available, a State well identification number and any local well identification.

(B) Well location, elevation of the ground surface, and reference point, including a description of the reference point.

(C) A description of the well use, such as public supply, irrigation, domestic, monitoring, or other type of well, whether the well is active or inactive, and whether the well is a single, cluster, or nested well.

(D) A list of all casing perforations, borehole depth, and total well depth if known.

~~(E) A copy of any well completion reports.~~

~~Any geophysical logs, well construction diagrams, or other relevant information, if available.~~

~~(F)~~(E)

~~(G)~~(F) Identification of aquifers monitored, if applicable.

~~(H)~~(G) Any other relevant well construction information, such as well capacity, casing diameter, casing modifications, or other information as available.

(4) If an Agency relies on wells that lack information on 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 with the necessary information, or demonstrate to the Department that such information is not necessary to understand and manage groundwater in the basin.

(c) Maps submitted to the Department shall meet the following requirements:

(1) Each map, including all data layers, shapefiles, geodatabases, and other information used to create the map, shall be submitted electronically to the Department in accordance with Article 4.

(2) Each map shall contain a level of detail and be clearly labeled to ensure that the map is informative and useful.

(3) The datum shall be clearly identified on the maps or in an associated legend or table included in the Plan.

(d) Hydrographs submitted to the Department shall meet the following requirements:

(1) Hydrographs shall be submitted electronically to the Department in accordance with Article 4.

(2) Hydrographs shall include the state well number or CASGEM well identifier, if available, and any local well designation, and elevation of the ground surface~~,~~ and reference point.

(3) Hydrographs shall use the same datum and scaling to the greatest extent practical ~~and contain a level of detail and be clearly labeled to ensure that they are informative and useful.~~

(e) Groundwater and surface water models developed or utilized as part of or in support of a Plan shall ~~be consist of public domain open-source software that meets~~meet the following requirements:

(1) Shall have publically available supporting documentation that establishes its ability to represent groundwater and surface water flow.

(2) Shall be calibrated against site-specific field data.

(3) Shall be based on actual field or laboratory measurements, or equivalent methods, that document the validity of chosen parameter values.

(f) 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.~~

§ 352.8. Data Management and Recordkeeping

Each Agency shall develop and implement a ~~coordinated~~ data management system that is capable of storing, maintaining, and reporting all relevant ~~information~~data related to the development or implementation of the Plan.

ARTICLE 4. Procedures

The legal certification requirements are excessive for a planning document of this type.

While SGMA requires DWR to accept public comment on GSPs, the regulations should be clear that this is not a substitute for individuals or entities participating in the local development of the GSP, nor a forum for rehashing issues already resolved at the local level. SGMA does not provide for DWR to accept comments on a "proposed" plan as stated in the draft regulations.

The use of the word "all" is rampant throughout the regulations. It is the responsibility of the GSA to evaluate available information and then synthesize and present representative and useful data and information.

Suggested modifications to Article 4 to address these concerns are provided below.

§ 353.4. Reporting Provisions

Plans, Plan amendments, annual reports, and five-year assessments shall be submitted by each Agency in accordance with the requirements of this section.

(a) ~~All materials~~Materials shall be submitted electronically to the Department through an online reporting system, in a format provided by the Department as described in Section 353.2.

(b) ~~All materials~~Materials shall be accompanied by a transmittal letter signed by a person duly authorized ~~under California law~~ by the Agency to bind the party submitting the report, and including the following certification:

~~"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete."~~

(c) ~~All~~ Materials submitted to the Department shall be posted on the Department's Internet Web site.

§ 353.6. Initial Notification

(a) Each Agency shall notify the Department, in writing, ~~within 30 days~~prior to initiating development 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 may contact the Agency and participate in the development and implementation of the plan. The Agency shall make the information publicly available by posting relevant information on the Agency's Internet Web site.

(b) The Department shall post the initial notification required by this Section, including Agency contact information, on the Department's Internet Web site within 20 days of receipt.

(c) Upon request, prior to adoption of a Plan, the Department shall provide reasonable assistance to an Agency regarding the elements of a Plan required by the Act and this Subchapter. Notwithstanding any advice provided by the Department, the Agency is solely responsible for the development and adoption of a plan that is capable of achieving sustainable groundwater management.

§ 353.8. Public Comment

Any person may provide comments to the Department regarding any ~~proposed or~~ adopted Plan submitted to the Department.

~~(a)~~ The Department shall ~~accept public comment on any aspect of an Agency's decision to develop a Plan as described in Section 353.6, including all elements of the proposed Plan as it may be developed by the Agency.~~

~~(b)~~(a) ~~The Department shall establish a comment period of no less than~~provide 60 days for persons to submit comments on an adopted Plan following posting on its internet website of a Plan that has been accepted by the Department for evaluation pursuant to Section 355.2.

~~(c)~~(b) The following ~~guidelines~~ apply to all public comments:

(1) Public comment shall be submitted by written notice, and shall include the name, address, and electronic mail address of the person or entity providing the comments and information, with a duplicate copy of the comment provided to the Agency at the same time.

(2) Public comment should include a clear statement of relevant issues that are the subject of the comments and information.

~~(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.~~

(3) ~~All comments~~Public comments should document the commenters participation in development of the Plan and any efforts to raise and address the issues during development of the plan.

~~(d)~~(c) Comments and other information received shall be posted on the Department's Internet Web site.

~~(e)~~(d) The Department is not required to respond to comments, but ~~will~~may consider comments as part of its evaluation of a Plan.

~~(f)~~(e) The Department shall give the Agency a reasonable opportunity to respond to public comment, including the opportunity to modify the Plan consistent with Section 355.2. The agency shall not be required to respond to any public comment.

ARTICLE 5. Plan Contents

Article 5 of the draft regulations is the generally overly prescriptive. Much of the information called for is excessive, well beyond the scope of the statute, and would be very costly to collect and compile, without commensurate benefit to the management of the basin. Because of the magnitude of this Article and the extensive need for modifications, comments are subdivided by Subarticle as follows.

Subarticle 1 Administrative Information

The financial and other administrative information called for in Section 354.6(e) is excessive, and may not actually be fully available at the time of adoption of the GSP. It is also probably beyond the ability of DWR to evaluate without significant new resources.

Much of the information required in the draft regulation is excessive to meeting the needs of sustainable groundwater management. A good example is the well density map. Because of the large number of wells in some basins and the variable information that is available for wells this map will be costly to compile and potentially not very useful. SGA is not aware of any currently well managed basin that compiles information of this type.

The requirements relating to coordination of groundwater management and land use exceeds both the language and intent of SGMA. For example, SGMA did not envision a role for GSAs in managing future land use activities that could impact groundwater quality (354.8(g)(3)). Similarly, coordination with land use plans and agencies outside the basin was not envisioned by SGMA.

Suggested modifications to Article 5, Subarticle 1 to address these concerns are provided below.

§ 354.6. Agency Information

When submitting an adopted Plan to the Department, the Agency shall include a copy of the information provided pursuant to Water Code Section 10723.8, with any updates, if necessary, along with the following information:

(a) The name and mailing address of the Agency.

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

(c) The name and contact information, including phone number, mailing address and electronic mail address, of the plan manager.

(d) The legal authority of the Agency with specific reference to citations setting forth the duties, powers, and responsibilities of the Agency, including information demonstrating that the Agency has the necessary legal authority to implement the Plan.

~~(e) A description of anticipated revenues and costs of implementing the Plan, including programs, projects, contracts, administrative expenses and other expected costs, and information demonstrating that the Agency has the necessary financial ability to implement the Plan.~~

§ 354.8. Description of Plan Area

Each Plan shall include a description of the geographic areas covered, including the following information:

(a) One or more maps of the basin that depict the following:

(1) The area managed ~~by~~under the Plan and name and location of any adjacent basins.

(2) Jurisdictional boundaries of federal land, state land, tribal land, cities and counties and other land use agencies~~, and all general plans.~~

(3) Adjudicated areas, all Agencies within the basin, and areas governed by Plan alternatives.

(4) Designation of existing land uses ~~and the identification of each water use sector and water source type.~~

~~(5) The density 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.~~

(b) A written description of the Plan area, including a summary of the jurisdictional areas and other features depicted on the map.

(c) A description of existing water resource monitoring and management programs including, but not limited to, agricultural water management plans, urban water management plans, the California Statewide Groundwater Elevation Monitoring Program, the Irrigated Lands Regulatory Program, and the Groundwater Ambient Monitoring Assessment Program, Salt Nutrient Management Plans. To the extent existing programs require information similar to that required by this Subchapter, the Plan may incorporate data from existing programs.

~~(d) How existing water resource monitoring and management programs and agencies with water management authority, could affect the ability of the Agency to achieve sustainable groundwater management, and how the Plan addresses potential effects.~~

~~(e)~~ A ~~description of coordination between the Plan, Integrated Regional Water Management Plans, and Flood Management Plans, if applicable.~~

~~(f) A description of conjunctive use programs and infrastructure in the basin.~~

~~(g)~~(d) ~~A plain language~~ general description of the land use ~~elements or topic categories of any applicable general plans~~ in the basin that includes the ~~—~~following:

(1) A ~~summary~~listing of general plans or other land use plans governing the basin.

(2) A description of how implementation of existing land use plans are expected to change water demands within the basin.

~~(3) An identification and assessment of proposed land use activities that may pose a risk to groundwater quality or quantity in the basin.~~

~~(4) An assessment of how implementation of the Plan may affect applicable land use plans.~~

~~(5) summary of land use plans outside the basin, for any area the Agency determines to be linked to the hydrology of the basin governed by the Plan.~~

~~(6)~~(3) A summary of the process 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.~~

~~(8) How implementation of existing land use plans outside the basin, including a description of how implementation of those land use plans could affect the ability of the Agency to achieve sustainable groundwater management, for any area the Agency determines to be linked to the hydrology of the basin governed by the Plan.~~

~~(h)~~(e) A description of any ~~of the~~ additional Plan elements included in Water Code Section 10727.4 that the Agency determines to be appropriate.

§ 354.10. Notice and Communication

Each Plan shall include a summary of information relating to notification and communication by the Agency with other agencies and interested parties including the following:

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

(b) 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.

(c) A ~~summary~~listing of public meetings at which the Plan was discussed or considered by the Agency.

(d) A ~~copy~~summary of all comments regarding the Plan received by the Agency and a summary of any responses made by the Agency.

(e) A communication plan adopted by the Agency, including the following;

(1) An explanation of the Agency's decision-making process and how stakeholder input and public response will be used.

(2) Identification of opportunities for stakeholder engagement.

(3) A description of how the Agency encourages the active involvement of diverse social, cultural, and economic elements of the population within the basin.

~~(4) A schedule of milestones and scheduled dates for known projects or actions.~~

~~(5)~~(4) ~~A description of the roles and responsibilities of local agencies and the public.~~

SUBARTICLE 2. Basin Setting

Much of the information required in the draft regulation in Subarticle 2 is excessive and overly prescriptive. The evaluation and presentation of data and information necessary to describe the basin and groundwater conditions will be basin-specific and must be developed by the responsible professional developing the GSP. As an example, there is absolutely no basis for the requirement to identify all surface water bodies with water supply diversions in excess of 10 acre-feet per year. Such information may be important in one basin and insignificant in another.

One of the areas of major concern in the draft regulations is the focus on information related to groundwater quality. The suggestion that the GSP become the repository of all information relating to groundwater contamination, cleanup, waste discharge and the potential impacts on wells is beyond GSA authority and overlaps into a number of other local, state, and federal regulatory programs.

The water budget requirements are overly detailed and prescriptive. The SGMA statute mentions the term water budget exactly one time beyond the definitions, yet three full pages of regulations resulted. The regulations do not reflect the fact that many water budget elements will be estimated to varying degrees of accuracy. Additionally, the regulations indicate that DWR may be confused about whether they are seeking a water budget for the groundwater basin or for the geographic are overlying the basin. For example, exhaustive information on supplies and demands on surface waters that have little or no interaction with the groundwater basin go beyond the intent of SGMA.

Similarly, while a current and projected future water budget may be useful for management, the exhaustive detail expected for a historical water budget will provide limited benefit relative to the cost to develop it. In many cases, the necessary historical information may not be available. The regulations should be scaled back to require historical information on groundwater conditions – not a historic water budget.

The regulations identify a number of data sets and tools that will be provided by DWR. These should be discretionary for GSAs to use in their plans, not mandatory. In addition, there must be strict timelines for DWR to provide the data and tools if GSAs will be relying on them.

To close on a positive note, we appreciate DWRs inclusion of "management areas" as an element of groundwater management. This is an important recognition of the need for locals to have flexibility in implementation of SGMA.

Suggested modifications to Article 5, Subarticle 2 to address these concerns are provided below.

§ 354.14. Hydrogeologic Conceptual Model

(a) Each Plan shall include a hydrogeologic conceptual model of the basin consisting of a written description, map, and cross-sections, based on technical studies or qualified maps. The written description shall include a discussion of the following:

(1) Regional geologic and structural setting of the basin and surrounding area.

(2) Lateral basin boundaries, including major geologic features that significantly impede or impact groundwater flow.

(3) The definable bottom of the basin.

(4) Principal aquifers and aquitards, including the following information:

(A) Formation names, if defined.

(B) The physical properties of aquifers and aquitards, including their lateral and vertical extent, hydraulic conductivity, and storativity, which information may be based on existing technical studies or other sources of information.

(C) The structural properties of the basin that restrict groundwater flow within the principal aquifers, including information regarding stratigraphic changes, truncation of units, or other features.

(D) General water quality of the principal aquifers, which may be based on information derived from existing technical studies or regulatory programs.

(E) Identification of the aquifers used for domestic, irrigation, or municipal water supply.

(5) Other relevant information ~~required~~identified by the ~~Department as~~Agency that is necessary to evaluate the Plan.

(b) The hydrogeologic conceptual model shall be represented graphically by ~~at least two scaled cross-sections, approximately perpendicular to one another and extending the length and width of the basin, that~~one or more scaled cross-sectionsthat display the information required by this section.

(c) Physical characteristics of the ~~basin~~Plan area shall be represented on one or more maps that depict the following:

(1) Topographic information, of adequate scale, derived from the U.S. Geological Survey or another qualified source.

(2) Surficial geology ~~derived from a qualified map,~~ including the locations of ~~basin-wide~~ cross-sections required by this Subarticle.

(3) Soil characteristics such as ~~hydraulic conductivity or~~permeability and other ~~water-transmitting~~relevant properties as described by the appropriate Natural Resources

Conservation Service (NRCS) soil survey or other applicable studies.

(4) Delineation of existing recharge areas that substantially contribute to the replenishment of the basin, ~~potential recharge areas~~, and significant discharge areas, including active springs, seeps, and wetlands within or adjacent to the basin.

(5) Surface water bodies ~~with water supply diversions greater than 10 acre-feet per year, storage facilities with a capacity~~that are significant to the management of ~~greater than 100 acre-feet.~~the basin..

(6) The source ~~location, distribution system,~~ and point of ~~diversion~~delivery for imported water supplies.

(d) A summary of any gaps in the information identified in this section, and an evaluation of whether it significantly limits management of the basin.

§ 354.16. Basin Conditions

The Plan shall characterize current and historical groundwater conditions in the ~~basin~~Plan area. The Plan shall rely on the best available data to characterize historical conditions prior to January 1, 2015. The description ~~of historical basin conditions~~ shall specifically include conditions that existed as of January 1, 2015, and a comparison with present conditions. The description shall also contain all of the following:

(a) Groundwater elevation data demonstrating flow directions, lateral and vertical gradients, and regional pumping patterns, including:

(1) Groundwater elevation contour maps depicting the current seasonal high and seasonal low for each principal aquifer within the basin.

(2) Hydrographs depicting long-term groundwater elevations~~, historical highs and lows, and hydraulic gradients between principal aquifers.~~.

(b) Groundwater storage ~~data~~information demonstrating the annual and cumulative change in storage based on seasonal high groundwater conditions, water use, and water year type.

(c) Seawater intrusion conditions in the ~~basin~~Plan area that includes maps and cross-sections of the seawater intrusion front for each principal aquifer, if applicable.

(d) Groundwater quality issues that may impact the supply and beneficial uses of groundwater, including a description and map of the following:

(1) The location of known groundwater contamination ~~sites and plumes including current or historical waste discharge requirements, known historical or ongoing cleanup activities, and superfund sites~~plumes.

(2) ~~Horizontal and vertical~~A summary discussion of the proximity of wells to known sources of groundwater contamination.

(e) The extent, cumulative total, and annual rate of land subsidence~~, including maps depicting total subsidence.~~. Each Agency ~~shall~~may utilize data available from the Department, as specified in Section 353.2~~, or the best available information~~.

(f) Identification of interconnected surface water ~~systems and groundwater-dependent ecosystems~~bodies within the ~~basin~~Plan area. Each Agency shall utilize data available from the Department, as specified in Section 353.2, or the best available information

§ 354.18. Water Budget

The Plan shall include a water budget for the basin that provides an ~~accounting and~~ assessment of the total annual amount of groundwater and surface water entering and leaving the basin, including change in the amount of water stored under historical, current and projected water budget conditions~~, and the change in the amount~~.. A summary of water ~~stored. Water~~ budget information shall be reported in narrative, tabular and graphical form.

(a) The water budget shall quantify the following, either through direct measurements or estimates:

(1) ~~All water supplies~~Inflows to groundwater, including, but not limited to infiltration of precipitation, infiltration from applied water, infiltration from surface water systems, and subsurface groundwater inflow.

(2) ~~All water demands~~Outflows from groundwater, including but not limited to evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.

(3) ~~All water~~Water supplies by water source type.

(4) ~~All water~~Water demands by water source type and water use sector.

(5) The change in the annual volume of groundwater in storage between seasonal high conditions.

(6) The water year type associated with the annual supply, demand, and change in groundwater stored.

(b) The Plan shall quantify the current~~, historical,~~ and projected water budget for the basin as follows:

(1) ~~Current water budget information~~The Plan shall quantify a present-day ~~supply and demand~~ water budget using the most recent hydrology ~~and~~over a representative period and current land use information.

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

(A) ~~A quantitative~~An evaluation of the historical surface water supply reliability ~~as a function of the historical planned versus actual annual surface water deliveries,~~ by water year type, and based on at least the most recent ten years of surface water supply information.

(B) ~~A quantitative~~An assessment of the historical water budget, starting with the most recently available information and extending back a minimum of 10 years, or as is sufficient to ~~adequately calibrate and reduce the uncertainty of the tools and methods used to~~ estimate and project future water budget information and future aquifer response

to proposed sustainable groundwater management practices over the planning and implementation horizon.

(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.~~groundwater conditions in he Plan area.

(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 conditions~~ concerning hydrology, water demand and surface water supply reliability:

(A) Hydrology: Projected hydrology shall utilize 50-years of historical precipitation, evapotranspiration, and streamflow information, if available, as the baseline hydrology over the planning and implementation horizon, while evaluating scenarios of future hydrologic uncertainty ~~associated with projections of climate change and sea level rise.~~

(B) Water Demand: Projected water demand shall utilize the most recent land and water use~~, evapotranspiration, and crop coefficient~~ information ~~as the baseline water demand over the planning and implementation horizon~~, while evaluating scenarios of future water demand uncertainty ~~associated with projections of local land use planning, future population growth, and climate change.~~

(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 evaluating scenarios of future water supply uncertainty ~~associated with historical surface water supply reliability, and projections of future local land use planning, future population growth, and climate change.~~

(c) The Plan shall ~~rely on~~ identify and describe the ~~best available information and best available science to quantify the water budget for the basin in order to provide an adequate understanding of historical and projected hydrology, water demand, water supply, land use, population, climate change, sea level rise, groundwater-surface water interaction, and subsurface groundwater flow. If a groundwater-surface water model is not~~methods or tools used to ~~quantify and~~ evaluate ~~the~~ projected water budget conditions ~~and the potential impacts to beneficial uses and users of water, the Plan shall identify and describe an equally effective method or tool to evaluate projected water budget conditions, or identify provisions for developing a groundwater-surface water model capable of quantifying projected water budget conditions no later than the first five-year assessment~~.

(d) The following information shall be provided by the Department and ~~shall~~may be used by Agencies in developing the water budget:

(1) Historical ~~water budget~~ information for mean annual temperature, mean annual precipitation, water year type, and central valley land use.

(2) Current ~~water budget~~ information for temperature, water year type, evapotranspiration, and Statewide land use.

(3) Projected ~~water budget~~ information for population, population growth, climate change, and sea level rise.

(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 or other methodology to develop the water budget.

(f) Information required to be provided by the Department pursuant to this Subchapter shall be provided on the Department's Internet Website not later than December 31, 2016.

(g) The Agency may utilize other data and tools 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 quality to support development and implementation of the Plan.

§ 354.20. Management Areas

Each Agency may define one or more management areas within a ~~basin if local conditions for one or more critical parameters differ significantly from those of the basin at large, and~~Plan area if the Agency has determined that subdivision into management areas will facilitate implementation of the Plan. Management areas may have different minimum thresholds and be operated to different measurable objectives ~~than the basin at large~~, provided that the goal of the Plan is to achieve sustainable management for the entire basin by the target date and that operation to different standards within a management area does not produce undesirable results elsewhere.

(a) Plans that include management areas shall describe the following:

(1) The basis for the formation of each management area.

(2) The minimum thresholds and measurable objectives appropriate to each management area.

(3) The appropriate level of monitoring and analysis for each management area based on documented differences between the ~~area and the basin at large~~areas.

(b) If a Plan ~~creates~~includes one or more management areas, the descriptions, maps, and cross-sections required by this Subarticle shall include information about those areas.

SUBARTICLE 3. Sustainable Management Criteria

As in previous sections, the draft regualtions are overly prescriptive. In addition, in this subarticle, with the introduction of new terminology and concepts (such as minimum threshholds and measurable objectives) the regulations are overly wordy and lead to confusion.

The discussion of undesirable results in the draft regulations is missing a key component of SGMA, that they must be caused by "groundwater conditions occurring throughout the basin." This is important ot the understanding of how monitoring data at discrete points will be interpreted.

The definition of what metric will be used for each critical parameter is unnecessarily prescriptive. Multiple possible metrics may be appropriate depending on the specific basin.

Suggested modifications to Article 5, Subarticle 3 to address these concerns are provided below.

§ 354.22. Introduction to Sustainable Management Criteria

This Subarticle describes criteria for sustainable management of a basin, including the standards by which an Agency shall define undesirable results and minimum thresholds for each relevant critical parameter. ~~Critical parameter refers to chronic lowering of groundwater levels 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).~~ This Subarticle describes the following:

(a) The interrelationship between minimum thresholds, undesirable results, and measurable objectives.

~~(b) The groundwater conditions for which critical parameters are significant and unreasonable, at a given location, which determines the minimum threshold.~~

~~(c)~~(b) The process for determining the point at which exceeding minimum thresholds has the cumulative effect of causing undesirable results.

~~(d) The operational range above the minimum threshold that defines the measurable objective.~~

~~(e)~~(c) The requirements for the Agency to establish measurable objectives and interim milestones necessary to achieve the sustainability goal in the basin within 20 years of Plan implementation, or as extended with approval of the Department and to maintain the sustainability goal over the planning and implementation horizon.

§ 354.24 Sustainability Goal

Each Agency shall establish a sustainability goal for the basin. The Plan shall include a description of the sustainability goal, including 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 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.

§ 354.26. Undesirable Results

Each Agency shall describe the processes and criteria relied upon to define undesirable results applicable to the ~~basin~~Plan area. Undesirable results occur when significant and unreasonable effects for any of the critical parameters are caused by groundwater conditions occurring throughout the basin.

(a) The description provided by the Agency shall include, but is not limited to, the following:

(1) The groundwater conditions under which the critical parameters are significant and unreasonable, which shall define minimum thresholds for that critical parameter as described in Section 354.28.

(2) An explanation of the criteria used to define when and where the cumulative effects of such groundwater conditions create undesirable results.

(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.

(4) A description of the cause of groundwater conditions that would lead to undesirable results based on information developed in the hydrogeologic conceptual model, basin conditions, water budget, and other data or models as appropriate.

~~(b) Each Agency may apply different criteria and establish different definitions of the groundwater conditions giving rise to undesirable effects in management areas, provided that the interests of beneficial uses and users of groundwater have been adequately considered and that the Agency demonstrates that the use of different criteria in management areas does not adversely affect the ability of the Agency to achieve the sustainability goal for the basin.~~

~~(c)~~(b) The Agency may need to evaluate multiple minimum thresholds to determine whether an undesirable result is occurring in the basin. The determination that undesirable results are occurring may depend upon measurements from a network of instruments, rather than a single point or the measurement value of one instrument.

~~(d)~~(c) An Agency that is able to demonstrate that conditions for one or more critical parameters would not be likely to lead to undesirable results in the basin shall not be required to conduct the analysis for those critical parameters described in this Section.

§ 354.28. Minimum Thresholds

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.

(a) Minimum thresholds shall be numeric values that define conditions that, if exceeded and occurring throughout the basin, could ~~lead to~~represent undesirable results. The description of minimum thresholds shall include the following:

(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, and other data or models as appropriate.

~~(2) 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.~~

~~(3)~~(2) A discussion of how the minimum thresholds ~~do not~~may adversely affect the ability of adjacent basins to achieve sustainability goals.

~~(4)~~(3) How minimum thresholds will affect the interests of beneficial uses and users of groundwater.

~~(5)~~(4) State, federal, or local standards that relate to the critical parameter for which the minimum threshold has been established.

~~(6)~~(5) How each minimum threshold will be quantitatively measured throughout the basin, consistent with the monitoring network requirements described in Subarticle 4.

(b) Minimum thresholds for each critical parameter shall be defined based on the following:

~~(1)~~ Chronic Lowering of Groundwater Levels. The minimum threshold for chronic lowering of groundwater levels shall be the groundwater elevation that indicates a significant and unreasonable depletion of supply. ~~Minimum thresholds for chronic lowering of groundwater levels shall be supported by the following:~~

~~(A) The rate of elevation decline calculated based on historical trends and projected water use in the basin, based on water year type.~~

~~(B) Potential effects on other critical parameters, including reduction of groundwater storage and land subsidence, and where appropriate, sea water intrusion, surface water depletion, and degraded water quality.~~

~~(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.~~

~~(2)~~ Reduction of Groundwater Storage. The minimum threshold for reduction of groundwater storage ~~shall~~may be a total volume of groundwater that can be taken out of storage without causing undesirable results~~. Minimum thresholds for reduction of~~, groundwater ~~storage shall be supported~~elevation at one or more monitoring points, or other appropriate parameter identified by the ~~following:~~Agency.

~~(A) The annual sustainable yield of the basin, calculated based on historical trends and projected water use in the basin, based on water year type.~~

~~(3)~~(1) Seawater Intrusion. The minimum threshold for seawater intrusion shall be the location where seawater intrusion is considered significant and unreasonable, and shall be defined by a ~~numeric~~ chloride concentration isocontour for each principal aquifer~~.~~, chloride concentration at specific monitoring points, or other appropriate parameter identified by the Agency. Minimum thresholds for seawater intrusion shall be supported, if applicable, by the following:

(A) Maps and cross-sections of the chloride concentration isocontour that defines the minimum threshold~~, interim milestones, and measurable objective~~ for seawater intrusion for each principal aquifer.

(B) A description of the consideration given to the effects of current and projected sea level rise on seawater intrusion of the following during development of the seawater intrusion minimum threshold.

~~(4)~~(2) Degraded Water Quality. The minimum threshold for degraded water quality shall be the significant and unreasonable degradation of water quality, including 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.~~ The minimum threshold shall be defined by concentrations of constituents determined by the Agency to be of concern for the basin.

~~(5)~~(3) Land subsidence. The minimum threshold for land subsidence ~~shall~~may be defined as the rate of subsidence ~~that substantially interferes with surface land uses.~~, the cumulative amount of subsidence, or other appropriate parameter identified by the Agency.. Minimum thresholds for land subsidence shall be supported by the following:

(A) Identification of land uses and property interests that have been affected or are likely to be affected by land subsidence 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.

(B) Maps and graphs showing the extent and rate of land subsidence in the basin ~~that defines the minimum threshold, interim milestones, and measurable objectives~~.

~~(6)~~(4) Depletions of interconnected surface water. The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has significant and unreasonable adverse impacts on beneficial uses of the surface water. The minimum threshold established for depletions of interconnected surface water shall be supported by the following:

(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 describe how the Agency will acquire sufficient information no later than the first five-year assessment.~~

(B) A description of the ~~groundwater-surface water model~~methodology used to quantify surface water depletion~~. If a groundwater-surface water model is not used to estimate surface water~~, and to assess whether such 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~~ is a result of ~~quantifying surface water depletion no later than the first five-year assessment.~~groundwater extraction

(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~~any critical ~~parameters~~parameter, as appropriate. The Agency shall demonstrate that the representative minimum threshold for groundwater elevation is a reasonable and effective surrogate ~~for multiple individual minimum thresholds and is supported by clear and convincing evidence in the Plan.~~ .

(e) ~~If the~~The Agency ~~determines~~may demonstrate that minimum thresholds are not required for seawater intrusion, land subsidence, depletions of interconnected surface water, or water quality, ~~the Plan shall~~by providing adequate information to support ~~this determination with clear and convincing evidence~~a low potential for these types of undesirable results.

§ 354.30. Measurable Objectives

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~~at the end of the 20 years of Plan implementation and groundwater is sustainably managed over the planning and implementation horizon.

(a) Measurable objectives shall be represented by quantitative values using the same metrics as are used to define the minimum threshold for each measurable objective, and shall rely on the same monitoring sites as minimum thresholds.

(b) The measurable objective shall be above the minimum threshold to provide a reasonable margin of operational flexibility under adverse conditions which shall take into consideration components such as historical water budgets, seasonal and long-term trends, and overdraft during a period of drought.

(c) Each Agency may establish measurable objectives that exceed the reasonable margin of operational flexibility for the purpose of improving overall conditions in the basin, but failure to achieve those objectives shall not be grounds for a finding of inadequacy of the Plan.

(d) Each Agency may ~~use representative minimum thresholds for groundwater levels developed pursuant to Section 354.26(d), as the basis for defining~~develop a representative measurable objective ~~that represents all~~for groundwater elevation for any critical ~~parameters~~parameter. The Agency must demonstrate that the representative measurable objective for groundwater elevation is a reasonable and effective surrogate ~~for multiple individual measurable objectives supported by clear and convincing evidence in the Plan~~.

(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 of Plan implementation. Interim milestones shall be expressed numerically in the same units as the measurable objective.

~~(f) Each Plan may include measurable objectives and interim milestones for additional Plan contents described in Water Code Section 10727.4 where the Agency determines such measures are appropriate for sustainable groundwater management in the basin.~~

SUBARTICLE 4. Monitoring Networks

The monitoring network requirements in the draft regulations are overly prescriptive and too broadly defined. A number of objectives for monitoring networks are included that are actually a part of the evaluation of monitoring data rather than the function of the monitoring network per se. These evaluations are covered in other parts of the regulations and cause confusion when repeated here.

In several locations in this Subarticle there is reference to methods approved by the Department. The authority of DWR is to evaluate the GSP, not to approve specific methods for monitoring. Appropriate monitoring should be determined locally.

Suggested modifications to Article 5, Subarticle 4 to address these concerns are provided below.

§ 354.32. Introduction to Monitoring Networks

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 to adequately characterize ~~surface water and~~ groundwater conditions in the basin, evaluate management actions, and assess progress toward achieving the sustainability goal.

§ 354.34. Monitoring Network

Each Agency shall develop a monitoring network capable of collecting sufficient data to demonstrate short-term, seasonal, and long-term trends in ~~surface and~~ groundwater conditions and yields representative information about changes relative to the minimum thresholds and measurable objectives for the basin.

(a) Each Plan shall include a description of the monitoring network objectives for the basin, including an explanation of how the network will be developed and implemented to monitor surface water and groundwater conditions, and the interconnection of surface water and groundwater, with sufficient temporal frequency and spatial density to adequately evaluate the affects and effectiveness of Plan implementation. The monitoring network objectives shall be implemented to accomplish the following~~:~~

~~(1) Demonstrate progress toward achieving measurable objectives described in the Plan.~~

~~(2)~~ ~~Identify impacts to the beneficial uses or users of groundwater.~~

~~(3)~~(1) Identify changes in basin conditions relative to measurable objectives and minimum thresholds.

~~(4) Quantify annual changes in water budget components.~~

~~(5)~~(2) Identify impacts to the ability of adjacent basins to meet the sustainability goal.

(b) The monitoring network shall be designed to ensure adequate coverage of groundwater conditions related to critical parameters. If localized conditions warrant the formation of management areas, those areas shall be specifically monitored with a quantity and spacing of

monitoring sites sufficient to evaluate conditions in that area.

(c) A Plan may incorporate site information and monitoring data from existing sources into the monitoring network. Incorporated sources of data may include, but are not limited to, existing groundwater management plans, California Statewide Groundwater Elevation Monitoring data, or other Department programs, Salt and Nutrient Management Plans, the Irrigated Lands Regulatory Program, the Surface Water Ambient Monitoring Program, the Groundwater Ambient Monitoring Assessment Program, the Salt Nutrient Management Plans, as well as other relevant monitoring sites.

(d) The density of monitoring sites and frequency of measurements ~~required to demonstrate short-term, seasonal, and long-term trends shall be determined based upon the following factors:~~shall be adequate to measure progress in achieving measurable objectives and compliance with minimum thresholds.

~~(1) Level of current and projected groundwater use.~~

~~(2) Aquifer characteristics including, but not limited to, confined or unconfined aquifer conditions, or other physical characteristics that affect groundwater flow.~~

~~(3) Impacts on beneficial uses and users of groundwater and the ability of adjacent basins to meet the sustainability goal.~~

~~(4) Whether the Agency has adequate long-term existing monitoring results or other technical information that demonstrates an understanding of aquifer response.~~

(e) The Plan shall describe the following information about the monitoring network:

(1) Scientific rationale used for the site selection process.

(2) Monitoring site compliance with ~~best management practices.~~policies and procedures. If a site is not consistent with ~~best management practices~~Agency policies and procedures for monitoring , the Plan shall explain why the site is necessary to the monitoring network~~.~~ and provides useful information..

(3) For each critical parameter, the quantitative values for the minimum threshold, measurable objective, and interim milestones for each monitoring site, if applicable.

(f) The location and type of each monitoring site within the basin shall be displayed on a map, and reported in tabular format, and shall include information regarding the monitoring site type, frequency of measurement, and the purposes for which the site is being monitored.

(g) The ~~best management practices~~policies and procedures 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.

(h) The ~~best management practices~~policies and procedures for monitoring developed by each Agency shall include the following minimum standards:

~~(1)~~ Groundwater Elevations. The monitoring network shall be capable of demonstrating

groundwater occurrence, flow directions, and hydraulic gradients between principal aquifers and surface water features ~~that includes the following:~~.

~~(A) A sufficient density of monitoring wells capable of collecting representative measurements through depth discrete perforated intervals to adequately characterize the potentiometric surface for each of the principal aquifer.~~

~~(B)~~(A) Static groundwater elevation measurements shall be collected at least two times per year, to represent seasonal low and seasonal high groundwater conditions.

(2) Groundwater Storage. The monitoring network shall be capable of providing sufficient data to enable a reasonably accurate ~~and detailed~~ assessment of the change in annual groundwater storage.

(3) Seawater Intrusion. The network shall be capable of monitoring chloride concentrations, or other constituents ~~approved by the Department~~, and be sufficiently dense to calculate the current and projected rate of seawater intrusion for each principal aquifer.

(4) Water Quality. The monitoring network shall be capable of collecting sufficient spatial and temporal data from each principal aquifer to determine groundwater quality trends for established constituents of concern.

(5) Land subsidence. The monitoring network shall be capable of identifying the rate and spatial distribution of land subsidence, which may be measured by extensometers, GPS surveying, remote sensing technology, or other appropriate method ~~approved by the Department~~.

(6) Interconnected surface waters. The monitoring network shall be capable of monitoring surface and groundwater conditions where interconnected surface water exists. ~~Monitoring of interconnected surface water systems shall be sufficient to characterize the spatial and temporal exchanges between surface water and groundwater, as necessary and appropriate, to adequately calibrate and apply the tools and methods selected to identify interconnected surface water systems.~~ The interconnected surface water monitoring network shall be able to characterize the following:

(1) Flow ~~conditions~~potential including, but not limited to, surface water ~~discharge,~~ elevation and groundwater elevation in proximity to the surface water ~~head, and baseflow contribution.~~body..

(2) Identifying the approximate date and location where ephemeral or intermittent flowing streams and rivers cease to flow, if applicable.

~~(3) Monitor the conditions to adequately characterize temporal changes in conditions with varying stream discharges and regional groundwater pumping conditions.~~

~~(4)~~(3) Any other factor that is necessary to identify potential significant and unreasonable adverse impact on beneficial uses of the surface water.

§ 354.36. Representative Monitoring

Each Agency may designate a subset of monitoring sites as representative of conditions in the basin or an area of the basin for the purposes of establishing specific minimum thresholds, measurable objectives, and related interim milestones, as follows:

(a) Representative monitoring sites may be designated by the Agency as the point at which critical parameters are monitored, and for which quantitative values for the minimum threshold, measurable objective, and interim milestones are defined.

(b) Groundwater elevations may be used as a proxy for monitoring other critical parameters if the Agency demonstrates the following.

(1) A substantial correlation exists between groundwater elevations and the critical parameters for which groundwater elevation measurements serve as a substitute.

(2) Measurable objectives established for groundwater elevation shall include a reasonable margin of operational flexibility taking into consideration the basin conditions required to avoid undesirable results for the critical parameters for which groundwater elevation measurements serve as a substitute.

(c) The designation of a representative monitoring site shall be supported by technical evidence demonstrating that the site adequately reflects general conditions in the area.

§ 354.38. Assessment and Improvement of Monitoring Network

Each Agency shall evaluate the monitoring network and include an assessment in the initial Plan and each five-year evaluation, including ~~an assessment of~~ whether there are data gaps that could affect the ability of the Plan to achieve the sustainability goal.

(a) Each Agency shall identify data gaps wherever the basin does not contain a sufficient number of monitoring sites, does not monitor sites with sufficient frequency, or utilizes monitoring sites that are unreliable, including those that do not satisfy ~~best management practices~~policies and procedures adopted by the Agency.

(b) If the monitoring network contains data gaps, the Plan shall include a description of the following:

(1) The location and reason for gaps in the monitoring network.

(2) Local issues and circumstances that limit or prevent monitoring.

(c) Each Agency shall describe steps that will be taken to fill any data gaps ~~within the first five years of implementation of the Plan or~~ before the next five-year assessment, including the location and purpose of newly added or installed monitoring sites.

(d) Each Agency shall ~~adjust~~consider increasing the monitoring frequency and density of monitoring sites to provide a greater level of detail about site-specific surface and groundwater conditions and the effectiveness of management actions under circumstances that include, but are not limited to the following:

(1) If minimum thresholds are exceeded.

(2) Highly variable spatial or temporal conditions.

(3) ~~Adverse~~Unforeseen adverse impacts to beneficial uses and users of groundwater.

(4) ~~Adversely affects~~Conditions that adversely affect the ability of an adjacent basin to implement their Plan or ~~impedes~~impede achievement of sustainability goals in an adjacent basin.

(e) An Agency may reduce the monitoring frequency and density of monitoring sites where such action will improve the cost effectiveness of monitoring if it does not substantially reduce the ability to monitor the progress of Plan implementation and the achievement of the sustainability goal.

§ 354.40. Reporting Monitoring Data to the Department

All monitoring data shall be stored in the data management system developed pursuant to Section 352.8. A copy of that data shall be submitted electronically on forms provided by the Department according to the Department's data standards, in one of the following methods:

(a) Each Agency shall compile and include all monitoring data in each Annual Report and, or

(b) The Agency shall make all monitoring data available to the Department throughout the year, as collected or measured by the Agency.

SUBARTICLE 5. Projects and Management Actions

The "belt and suspenders" approach in this Subarticle is excessive, counterproductive, and not supported by SGMA. A GSA can be expected to make its best effort to develop projects and actions that will achieve sustainability, at significant cost and with significant time needed for discussion and negotiation. To suggest that another set of contingency projects and actions should be developed as well is unreasonable. While many GSAs may develop a set of progressive actions that will be implemented over time based on basin conditions, the regulations should not mandate such an approach.

Suggested modifications to Article 5, Subarticle 5 to address these concerns are provided below.

§ 354.42. Introduction to Projects and Management Actions

This Subarticle describes the criteria for actions and projects to be included in a Plan to meet the sustainability goal of the basin.

§ 354.44. Projects and Management Actions

(a) Each Plan shall include a description of ~~the~~any projects and management actions adopted to meet measurable objectives and prevent undesirable results. The description shall include the following:

(1) A list and description of all projects and management actions proposed in the Plan ~~with a description of the measurable objective that is expected to benefit from the project or action.~~.

(2) A summary of the permitting and regulatory process required for each project and management action.

(3) The status of each project and management action, including a time-table for expected initiation and completion, and the accrual of expected benefits.

(4) An explanation of the benefits that are expected to be realized from the project or management action, and how those benefits will be evaluated ~~and measured~~.

(5) An explanation of how the project or management action will be accomplished~~. If~~, including the ~~Plan relies on water from outside~~parties that will implement the ~~jurisdiction of the Agency, an~~project or action.

~~(5)~~(6) An explanation of the source and reliability of ~~that water shall be included~~any water supply that is needed to implement a project or action.

~~(6)~~(7) A description of the legal authority required for each project and management action, and the basis for that authority within the Agency.

~~(7)~~(8) A description of the financial requirement and sources of funding for each project and management action.

(b) ~~Each~~A Plan ~~shall~~may include contingency projects or actions as follows:

~~(1)~~ For each contingency project or management action, ~~and for each measurable objective, the Plan shall describe contingency 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.~~

~~(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 a minimum threshold or that undesirable results have occurred or are imminent. 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.~~

~~(3) Contingency projects or actions shall be supported by available scientific data, analytical methods, and groundwater models, if available, and quantify changes to groundwater use required to achieve the measurable objectives of the Plan or to avoid undesirable results in the basin.~~

~~(4) The Plan shall describe the following:~~

~~(A)~~(1) ~~Criteria~~the plan shall identify criteria that would trigger implementation and/or termination of contingency projects or actions, and the process by which the Agency shall determine that conditions ~~require~~requiring implementation of contingency projects or actions have occurred.the information in subdivision (a), as available, and

~~(B) The process by which the Agency shall provide notice to the public and other agencies that the implementation of contingency projects or actions is being considered or has been implemented, including a summary of the anticipated consequences of those projects or actions.~~

~~(5)~~(2) Implementation of a contingency project or action, if fully described in the approved Plan, shall not constitute an amendment to that Plan

ARTICLE 6. Evaluation and Assessment

As stated above for Article 2, the distinction of an "initial" plan should be removed.

The eleven criteria included for evaluation of the adequacy of a GSP is excessive and exceeds the intent of SGMA.

SGMA provides no authority to DWR to resolve conflicts as specified in section 355.10. The entire section should be stricken.

The determination of a plan as "conditionally adequate" will be beneficial to recognize progress. If a GSA is making good progress to develop and implement a plan, it is counterproductive to the intent of SGMA to find it probationary and will needlessly expend both state and local funds. However, the 180 day period for correction of deficiencies may be too short depending on the actions needed.

Suggested modifications to Article 6 to address these concerns are provided below.

§ 355.2. Department Review of ~~Initial~~ Adopted Plan

Upon adoption of a Plan the Agency shall submit a copy of the initial adopted Plan to the Department for evaluation.

(a) Upon receipt of an adopted Plan, the Department shall assign a submittal date to the Plan based on the day the Plan is received.

(b) The Department shall post the adopted Plan, submittal date, and all materials submitted by the Agency on the Department's Internet Web site within 20 days of receipt.

(c) The Department shall establish a period of no less than 60 days to receive public comments on the adopted plan, as described in Section 353.8.

(d) If the Board has jurisdiction over the basin or a portion of the basin pursuant to section 10735.2, the Department, after consultation with the Board, may proceed with an evaluation of a Plan.

(e) The Department shall evaluate a Plan within two years of its submittal date and issue a written assessment of the Plan that includes a description supporting the assessment, which will be posted on the Department's website. The Department may include recommended corrective actions to address any deficiencies identified in the assessment. When Department review is final, the assessment will include a determination of whether the Plan as one the following:

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

(2) Conditionally adequate. The Department has determined that the Plan has minor deficiencies that preclude an adequacy determination, but that could be rectified by the Agency through corrective actions recommended by the Department as described in this Section.

(3) Inadequate. The Department has determined that the Plan as submitted is not complete

and does not satisfy the requirements of Section 355.4(a), that the Plan contains significant deficiencies that preclude an adequacy determination, and those deficiencies cannot be rectified by the Agency in a timely manner, or that the Agency has failed to address deficiencies in a Plan previously classified as conditionally adequate through corrective actions recommended by the Department as described in this Section. If the Department makes any of the determinations described in this subsection, the Department shall seek consultation with the Board to determine whether the Plan is inadequate.

(f) For a Plan that is conditionally adequate, the Agency may modify a Plan based on a request for additional information from the Department or to include corrective actions to address any deficiencies identified by the Department and submit the modified adopted plan for further evaluation.

(1) The Department may consult with the Agency to determine the amount of time needed by the Agency to address any deficiencies.

(2) The Department may allow the Agency up to 180 days from the date the Department recommends corrective actions to submit a work plan and schedule to address deficiencies in a Plan, and up to 18 months to remedy deficiencies, unless a greater amount of time remains before the basin is required to be managed pursuant to a Plan established by Water Code Section 10720.7.

(3) No time limit shall apply to address deficiencies to Plans submitted for low or very low priority basins.

(g) If an Agency fails to address deficiencies in its Plan so that the Department is able to determine the Plan to be adequate, the Department shall issue an assessment of the Plan as inadequate and seek consultation with the Board.

§ 355.4. Criteria for Plan Evaluation

The Department shall evaluate a Plan to determine whether implementation of the Plan ~~has~~is likely to have the overall effect of achieving the sustainability goal for the basin, ~~complies with the Act,~~ and is in substantial compliance with the Act and this Subchapter ~~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.~~

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

(1) The Plan was submitted within the statutory period established by Water Code Section 10720.7, if applicable.

(2) The Plan is complete and includes all information required by the Act ~~and this Subchapter~~, including a legally adequate coordination agreement, if necessary.

(3) The Plan ~~covers~~or Plans cover the entire basin.

(4) The Agency has taken corrective actions, within the period described in Section 355.2, to

address deficiencies in the Plan identified by the Department.

(b) The Department shall evaluate a Plan that satisfies the requirements of Subsection (a) to determine 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:

(1) Whether the Plan substantially complies with the requirements of the Act and this Subchapter.

(2) The ~~quality~~adequacy of information, data, monitoring, and scientific methods upon which the Plan relies.

(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.

(4) Whether the interests of the beneficial uses and users of groundwater have been ~~adequately~~ considered, including access to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

(5) The feasibility of projects and management actions~~, including contingency projects~~, and the likelihood that these actions will prevent undesirable results and ensure that the basin is operated within its sustainable yield.

~~(6)~~ Whether the ~~Plan will adversely affect the ability of an adjacent basin to implement their groundwater sustainability Plan or impede achievement of sustainability goals in an adjacent basin.~~

~~(7) Whether the coordination agreements ensure the Plans utilize the same data~~policies and ~~methodologies specified in Water Code Section 10727.6.~~

~~(8) Whether the Agency has the legal authority and financing plan necessary to implement the Plan.~~

~~(9)~~(6) ~~Whether the best management practices~~procedures adopted by the Agency cover the range of projects and management actions anticipated by the Plan ~~or are consistent with the best management practices recommended by the Department or general industry standards.~~.

~~(10)~~(7) Public comments and other information indicating that impacts were not adequately considered in determining undesirable results or in developing the plan.

~~(11) Whether the Plan would impair the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.~~

§ 355.6. Periodic Review of Plan by Department

The Department shall periodically review approved Plans to ensure the Plan, as implemented, remains in conformance with the Act and likely to achieve the sustainability goal for the basin.

(a) The Department shall evaluate existing Plans at least every five years and whenever the Plan is amended. Department review shall be based on information provided in the annual reports and the periodic evaluation of the Plan prepared and submitted by the Agency.

(b) The Department shall consider the following in determining whether a Plan and its implementation is adequate:

(1) The Agency is meeting all of its interim milestones.

(2) The Agency is implementing actions and contingencies outlined in the Plan.

(3) Amendments to the Plan are compatible with the measurable objectives and sustainability goal.

(4) The Agency is compliant with the annual reporting requirements and periodic evaluation requirements.

(5) The Department concludes that the Plan and its implementation are likely to achieve the sustainability goal ~~and not likely to adversely affect the sustainability goals of adjacent basins.~~

(6) The Department may request from the Agency any information the Department deems necessary to evaluate the progress toward achieving the sustainability goal and the potential for adverse effects on adjacent basins.

(7) The Department may identify deficiencies in a Plan or its implementation and coordinate with the Agency to correct deficiencies prior to the issuance of the assessment.

(8) The Plan satisfies the criteria ~~for an initial Plan as~~ described in Section 355.4.

§ 355.8. Consultation with Board

The Department shall consult with the Board if any of the following occur:

(a) The Department determines that a Plan may be inadequate.

(b) The Department determines that a groundwater sustainability program is not being implemented in a manner that will likely achieve the sustainability goal for the basin.

(c) The Agency has not taken actions to address any deficiencies in a Plan that had been identified by the Department.

~~**§ 355.10. Resolution of Conflicts by Department**~~

~~The Department shall address disputes between Agencies or other entities responsible for groundwater management as follows:~~

~~(a) Disputes within a basin shall be the responsibility of the Coordinating Agency or other entities responsible for managing Plans and alternatives within that basin.~~

~~(b) Disputes between basins which claim that the implementation of Plans or alternatives in one basin affects the ability of an adjacent basin to implement its Plan, or impedes its ability to achieve the sustainability goal, shall be resolved by the Department.~~

~~(c) In resolving disputes, the Department may require additional information from each basin, including any proprietary data used by the Agency. Information withheld will be presumed not to support the interpretations that rely on that data.~~

~~(d) If the parties are unable to resolves disputes that relate to fundamental issues of sustainable groundwater management, the Department may find the relevant Plan or Plans and alternatives to be inadequate.~~

ARTICLE 7. Reports, Assessments, and Amendments

The reporting of water use and other information required in the draft regulations goes far beyond that specified in SGMA, in Water Code Section 10728.

As elsewhere in the draft regulations, the reference to best management practices should be removed.

The draft regulations suggests that a GSP that was previously approved by DWR would be subject to being found inadequate based on a single annual report. The variability of hydrology and the uncertainties involved in GSP implementation make a single year an inappropriate basis for this finding. Reconsideration of the adequacy of GSPs should be based on the five-year Agency assessment and DWR evaluation.

Suggested modifications to Article 8 to address these concerns are provided below.

§ 356. Introduction to Reports, Assessments, and Amendments

This Article describes the procedural and substantive requirements for annual reports, the periodic evaluation and assessments of Plans, and any proposed amendments to an approved Plan prepared by an Agency.

SUBARTICLE 1. Annual Reports

§ 356.2. Introduction to Reports

This Article describes the requirements for annual reports submitted by Agencies on or before April 1 of each year after the adoption of the Agency's Plan, including information required to demonstrate progress towards achieving the sustainability goal based on performance relative to measurable objectives described in the Plan, and Department review of those reports.

§ 356.4. Annual Report

Each Agency shall submit an annual report to the Department by April 1 of each year following the adoption of the Plan. The annual report shall include the following components:

(a) General information, including a title page, a transmittal letter, as described in Section 353.4, a table of contents, an executive summary, and a location map depicting the basin covered by the report.

(b) A detailed description and graphical representation of the following conditions of the basin

managed in the Plan:

(1) Groundwater elevation data from all monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:

(A) Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.

(B) Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, but at a minimum from January 1, 2015, to current reportingyear.

(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 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~~.

(3) Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.

(4) Total water ~~use shall be collected from the best available measurement methods and~~ shall be reported in a table that summarizes total water use by water use sector~~,~~ and water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.

(5) Change in groundwater storage shall include the following:

(A) Change in groundwater storage maps for each principal aquifer in the basin.

(B) A graph depicting water year type and cumulative change in groundwater storage for the basin based on historical data to the greatest extent available, but at a minimum from January 1, 2015, to the current reporting year.

(c) A synopsis of progress towards implementing the Plan, the ability of the Agency to achieve interim milestones and the implementation of any contingency measures.

§ 356.6. Department Review of Annual Reports

(a) The Department shall acknowledge the receipt of annual reports by written notice and post the report and all related materials on the Department's Internet Web site within 20 days of receipt. If the Department determines that the annual report is incomplete, the Department shall provide written notice to the requesting agency of the need for additional ~~-~~information.

~~(b)~~ The Department may provide recommended corrective actions to address any deficiencies in, the annual report or implementation of the Plan based on Department may commence a periodic review of the annual report and shall ~~treat~~ notify the Agency of any necessary corrective actions. ~~, as described in Section 355.2, akes appropriate actions to remediate any deficiencies.~~

SUBARTICLE 2. Periodic Evaluation of Plan

§ 356.8. Introduction to Agency Evaluation and Assessment

This Subarticle describes the requirements for periodic Plan evaluation and assessment undertaken by the Agency, including Department review of that assessment.

§ 356.10. Agency Evaluation and Assessment

Each Agency shall evaluate and assess the Plan at least every five years and whenever the Plan is amended. The assessment shall be submitted to the Department together with the annual report for that year. The assessment shall describe basin conditions relative to the previous five-year period and the long-term sustainability goal for the basin. The Agency's assessment shall include an objective evaluation of Plan implementation and management of groundwater in the basin, including the following:

(a) A description of ~~each of the measurable objectives and~~ current groundwater conditions for each critical parameter relative to measurable objectives, interim milestones and minimum thresholds.

(b) A description of the implementation of any corrective actions identified by the Agency or recommended by the Department, and the effect on groundwater conditions resulting from those actions.

(c) A description of the implementation of any projects and management actions or contingency projects or actions, and the effect on groundwater conditions resulting from those projects or actions.

(d) A description of new information that has been made available since adoption or amendment of the ~~initial~~ Plan, or since the last five-year evaluation. The description shall also include whether new information warrants changes to any aspect of the Plan, including, but not limited to, the evaluation of basin conditions, minimum thresholds, or the criteria defining undesirable results.

(e) An evaluation of the hydrogeologic conceptual model, basin conditions, and the water budget in light of new information or changes in water use.

(f) A survey of the monitoring network within the basin, and evaluation of whether any areas within the basin are represented by less data or by data of insufficient quality or control than required by the policies and procedures adopted by the Agency or best management practices provided by DWR. The survey shall include the following:

(1) An assessment of monitoring network function with an analysis of data collected to date, identification of potential data gaps, and the actions necessary to improve the monitoring network.

(2) If the Agency identifies areas that require more or better data or other information, the Plan shall describe a program for the acquisition of such data sources and incorporation of newly obtained information into the overall Plan.

(3) Gaps in data or data quality shall be ~~remediated~~remedied no later than the ~~first~~next five-year assessment by the ~~Department~~Agency.

~~(4)~~ (g) Elements of the Plan, including, but not limited to, the hydrogeological conceptual model, groundwater conditions, 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~~next five-year assessment by the Department.

~~(5) The Plan shall prioritize the installation of new data collection facilities and analysis of new data based on the needs of the basin.~~

(4)

(g) Information describing any legislative actions, including a summary of regulations or ordinances related to the Plan adopted by the Agency.

(h) Information describing any enforcement or legal actions taken by the Agency.

(i) A description of completed or proposed Plan amendments.

(j) A summary of coordination that occurred between Agencies in a single basin and Agencies in hydrologically connected basins, and land use agencies where applicable.

(k) Other information the agency deems appropriate, along with any information necessary to the Department to conduct a periodic review as required by Water Code Section 10733.

SUBARTICLE 3. Plan Amendments

§ 356.12. Amendments and Modifications to Plan

Any amendment or other modification to a Plan shall be evaluated by the Department for consistency with the requirements of the Act and of this Subchapter.

(a) An Agency may modify a Plan at any time, and submit the modified Plan to the Department for evaluation.

(1) Prior to modifying a Plan, the Agency may submit the proposed modifications to the Department for evaluation.

(2) If the Department determines the proposed modifications are not significant, the Department shall notify the Agency that no further review shall be required and that the Agency may adopt the proposed modifications without formally amending the Plan.

(3) If the Department determines that the proposed modifications are or may be significant, the Department shall notify the Agency that the proposed modifications may only be adopted as formal amendments to the Plan.

(b) Whenever a Plan is amended, the Agency shall submit a copy of the amended Plan to the Department for evaluation pursuant to the requirements of this Subchapter for submission of a Plan.

(c) The Department shall review and issue an assessment of the amended Plan that states whether the amended plan is adequate, conditionally adequate, or inadequate as described in Section 355.2.

(d) The Department's evaluation shall focus on the amended portions of the Plan and any new information that is relevant to the amendments or other Plan elements. The Department will not evaluate any part of the Plan that has not been amended unless the Department has reason to believe the proposed amendment may result in changed conditions to other areas or to other aspects of the Plan.

ARTICLE 8. Coordination Agreements

Coordination agreement is strictly defined in SGMA as an agreement among two or more GSAs managing the same basin. A class of agreements between adjacent basins may be useful (interbasin agreements), but should be voluntary, and the content should be defined by the agreeing GSAs, rather than in regulation.

SGMA does not provide for a coordinating agency or submitting agency as defined in the draft regulations. If the coordinating agency concept is included, it should be based on a voluntary agreement among GSAs.

The requirements for a coordinating agreement proposed in the draft regulations far exceed that required by statute.

Suggested modifications to Article 8 to address these concerns are provided below.

§ 357. Introduction to Coordination Agreements

This Article describes the requirements for ~~voluntary coordination agreements between agencies in different basins and mandatory~~ coordination agreements between agencies within a basin developed pursuant to Water Code Section 10727.6, and voluntary agreements between Agencies in adjacent basins.

§ 357.2. Interbasin Agreements

Two or more Agencies in adjacent basins may enter into an ~~interbasin~~ agreement to establish compatible goals and understandings regarding fundamental elements of the Plans of each Agency as they relate to sustainable groundwater management. ~~Interbasin agreements should facilitate the exchange of technical information between Agencies and include a process to resolve disputes concerning the interpretation of that information. Interbasin agreements may include any information the participating Agencies deem appropriate, including the following:~~ Such agreements may be included in the Plan to support a finding that implementation of the Plan will not adversely impact an adjacent basin's ability to implement its Plan or impede the ability to achieve its sustainability goal.

~~(a) General information:~~

~~(1) Identity of all basins participating in and covered by the terms of the agreement.~~

~~(2) For each basin, a list of all Agencies or other public agencies or other entities with groundwater management responsibilities.~~

~~(3) For each basin, a list of all Plan or alternatives or adjudicated areas.~~

~~(b) Technical information:~~

~~(1) An estimate of groundwater flow across basin boundaries, including consistent and coordinated data, methods and assumptions.~~

~~(2) An estimate of stream-aquifer interactions at boundaries.~~

~~(3) Establish a common understanding of the geology and hydrology of the basins and their~~

~~hydraulic connectivity as it applies to determining groundwater flow across basin boundaries, and describe the different assumptions utilized by different Plans and how the Agencies reconciled those differences.~~

~~(4) Establish measurable criteria and a monitoring network regarding threshold values that would confirm that no adverse impacts are resulting from managing groundwater in any basin pursuant to terms of the agreement. If minimum thresholds or measurable objectives differ substantially between basins, the agreement will specify how the Agencies will reconcile those differences and manage the basins to avoid undesirable results. The Agreement shall identify all differences that the parties consider significant and include a plan and schedule to reduce the uncertainties so that over time, they collectively resolve those important uncertainties and differences.~~

~~(c) A description of the process for identifying and resolving conflicts between Agencies that are party to the agreement.~~

~~(d) Interbasin agreements submitted to the Department shall be posted on the Department's Internet Web site.~~

§ 357.4. ~~Intrabasin~~ Coordination Agreements

(a) Agencies intending to develop and implement Plans pursuant to Water Code Section 10727(b)(3) shall enter into a coordination agreement to ensure that the Plans are developed and implemented utilizing the same data and methodologies and that elements of the Plans necessary to achieve the sustainability goal are based upon consistent interpretations of basin conditions.

(b) ~~Intrabasin coordination~~Coordination agreements ~~shall~~may establish or identify a Submitting Agency that ~~shall be~~may serve as the single point of contact with the Department.

~~(c)~~ The coordination agreement shall include the following:~~Each Agency shall submit to the Submitting Agency all Plans, Plan amendments, supporting information, all monitoring data and other pertinent information, along with annual reports and periodic evaluations.~~

~~(d) The Submitting Agency shall compile and rectify data and interpretations regarding basin conditions provided by the Agencies and produce a single report synthesizing and summarizing that information into a coherent and credible account of basin conditions. Reports produced by the Submitting Agency shall include the following:~~

(1) An explanation of how the Plans implemented together satisfy the requirements of the Act and are in substantial compliance with this Subchapter.

~~(2) An explanation of how the Plans have been integrated using the same data and methodologies to provide useful information regarding the following:~~

~~(A) Hydrogeologic conceptual models, as described in Section 354.12.~~

~~(B) State of the basin, as described in Section 354.14.~~

~~(C) Water budgets, as described in Section 354.16.~~

~~(D) Undesirable results, minimum thresholds, measurable objectives, as described in~~

~~Subarticle 3 of Article 5.~~

~~(E) Monitoring networks, and monitoring objectives, as described in Subarticle 4 of Article 5.~~

~~(F) Projects and management actions, as described in Subarticle 5 of Article 5.~~

~~(3)~~(2) An explanation of how the integration of information and interpretations described in this section provides useful information regarding each of the assumptions described in Water Code Section 10727.6.

~~(4) Reports produced by the Submitting Agency shall accompany the initial Plan, any amendment to the Plan, annual reports, and the five-year assessment by each Agency within the basin.~~

(3) ~~Intrabasin coordination~~~~the basin.~~

~~(c)~~(c) Coordination agreements shall describe the responsibilities of each Agency for meeting the terms of the agreement, the procedures for the timely exchange of information between Agencies ~~and with the Submitting Agency~~, and procedures for resolving conflicts between Agencies.

~~(f)~~(d) ~~Intrabasin coordination~~Coordination agreements shall identify adjudicated areas within the basin, and any local agencies that have adopted an alternative that has been accepted by the Department.

~~(g)~~(e) The ~~intrabasin coordination~~Coordination agreement shall be submitted to the Department together with the Plans for the basin and, if approved, shall become part of the Plan for each participating Agency.

~~(h)~~(f) The Department shall evaluate the ~~Agreement~~Coordination agreement for compliance with the procedural and technical requirements of this section, to assure that the Agreement is binding on all parties, and that provisions of the Agreement are sufficient to address any disputes between or among Agencies that are party to the agreement.

~~(i)~~(g) Plans subject to the requirement of this section shall not be deemed adequate without a legally binding agreement.

~~(j)~~(h) Interagency agreements shall be reviewed as part of the five-year assessment, revised as necessary, dated, and signed by all parties.

ARTICLE 9. Alternatives and Adjudicated Areas

SGMA provided for alternatives to a GSP, where effective management was already in place or where groundwater conditions were demonstrably sustainable. SGMA did not envision that an alternative would be held to essentially the same standard as a GSP. The regulations should be modified to recognize the statutory direction that an alternative meet the objectives of the Act.

Suggested modifications to Article 9 to address these concerns are provided below.

§ 358.4. Alternatives to Groundwater Sustainability Plans

(a) A local agency that submits an alternative shall demonstrate that the alternative applies to the entire basin and satisfies the eligibility requirements of Water Code Section 10733.6, including an assessment that the alternative satisfies the objectives of the Act, and that the alternative is within a basin that is in compliance with Part 2.11 of the Water Code (commencing with Section 10920).

(b) An alternative shall be submitted to the Department by January 1, 2017, and every five years thereafter.

(c) A local agency shall include the following information based on the type of alternative submitted:

(1) An alternative submitted pursuant to Water Code Section 10733.6(b)(1) shall include a copy of the groundwater management plan.

(2) An alternative submitted pursuant to Water Code Section 10733.6(b)(2) that is not an adjudicated area described in Water Code Section 10720.8 shall do the following:

(A) Demonstrate that the adjudication submitted to the Department as an alternative is a comprehensive adjudication as defined by Chapter 7 of Title 10 of Part 2 of the Code of Civil Procedure (commencing with Section 830).

(B) Provide the Department with a copy of the adjudication order and any annual report submitted to the court pursuant to the adjudication.

(C) A local agency submitting an alternative based on an adjudication action described in Water Code Section 10733.6 (b)(4)(B) may, notwithstanding Water Code Section 10733.6 (c), submit the adjudication action to the Department for evaluation after January 1, 2017.

~~(3)~~ An alternative submitted pursuant to Water Code Section 10733.6(b)(3) shall demonstrate that ~~no undesirable results are present in~~ the basin ~~or have occurred between January 1, 2005, and January 1, 2015. Each subsequent submission shall demonstrate that no undesirable results are present in the basin or have occurred~~ has been operated within its sustainable yield for ~~the preceding ten-year~~ a period of at least ten years.

(e) A local agency shall include ~~an explanation of the functional equivalence of terms and concepts used in~~ sufficeient data and analysis to demonstrate the alternative ~~with the substantive and procedural requirements~~satisfies the objectives of the Act and this Subchapter.

(f) If a local agency submits an alternative for a basin that includes areas outside its jurisdiction or service area, the local agency shall enter into agreements with any local agency or other entity from which information will be required to comply with reporting requirements for the alternative and to demonstrate that basin satisfies ongoing requirements of the alternative. An agreement shall include a list and map of all local agencies or entities that are party to the agreement.

(g) After an alternative has been approved by the Department, if one or more Plans are adopted within the basin, the alternative and any agreements shall be revised, as necessary, to reflect any changes that may have resulted from adoption of the Plan, and the local agency responsible for the alternative and Agency responsible for the Plan shall enter into an agreement that satisfies the requirements of Section 357.4.

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

§ 358.6. Department Evaluation of Plan Alternatives

The Department shall evaluate an alternative to a Plan consistent with Article 6 of these regulations to determine whether the alternative satisfies the ~~goals~~objectives of the Act to achieve groundwater sustainability through local management and avoid undesirable results~~, including to adjacent groundwater basins~~.