SECTION 1 CONTENTS

Figures

Appendices

1. INTRODUCTION TO THE SOLANO SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

1.1. Background

Groundwater is a critical component of California's water supply portfolio, providing close to 40 percent of supply during normal years and up to 60 percent in drought years. If effectively managed, this resource will help protect communities, farms, and the environment against the impacts of prolonged dry periods and climate change. In September 2014, Governor Jerry Brown signed into law the Sustainable Groundwater Management Act (SGMA), a three-bill legislative package composed of AB 1739 (Dickinson), SB 1168 (Pavley) and SB 1319 (Pavley), which is codified in Section 10720 et seq. of the California Water Code. SGMA, effective in California January 1, 2015, provides a framework for the sustainable management of groundwater resources.

SGMA recognizes that groundwater management in California is most effective when done at the local level and requires the formation of Groundwater Sustainability Agencies (GSAs) to manage groundwater basins. The state has designated the Solano Subbasin as a medium priority subbasin, which requires Solano Subbasin GSAs to develop and implement a Groundwater Sustainability Plan (GSP) by January 31, 2022[1] to guide the sustainable management of their respective groundwater basin. For the purpose of developing a single GSP, five GSAs within the Solano Subbasin, detailed in **Section 1.3**, have organized to form the Solano Subbasin GSA Collaborative (Solano Collaborative).

The Solano Collaborative has 20 years to implement its GSP, achieve basin wide sustainability criteria, and bring the groundwater subbasin into balance. Achieving the sustainability goal and ensuring the subbasin achieves or maintains balance means avoiding significant and unreasonable adverse effects on six sustainability indicators:

1. Chronic lowering of groundwater levels,
2. Reduction of groundwater storage,
3. Seawater intrusion,
4. Water quality degradation,
5. Land subsidence, and
6. Depletion of interconnected surface water.

GSAs may adopt rules, regulations, and ordinances to manage groundwater and comply with SGMA. If sustainability is not achieved, the State Water Resources Control Board (State Water Board) can intervene and establish an interim management plan.

1.1.1. Purpose of the Solano Subbasin Groundwater Sustainability Plan

The purpose of the GSP is to provide a detailed road map for how the Solano groundwater basin will achieve and maintain long term sustainability. To manage groundwater resources, GSAs must have adequate information about the groundwater and hydrogeologic conditions within the basin, the tools

[1] Critically over drafted basins were required to submit Groundwater Sustainability Plans by January 31, 2020.

to measure and monitor those conditions, and specific, measurable goals to achieve and maintain sustainability. The process of developing this GSP includes:

- Gathering information to define groundwater conditions, starting with existing groundwater management plans and other plans and studies;
- Identifying data gaps and levels of uncertainty;
- Developing tools to improve data collection and understanding of groundwater conditions, such as reviewing the groundwater monitoring network and adding monitoring wells, developing a hydrogeologic conceptual model, and conducting groundwater flow modeling;
- Developing water budgets and sustainable yield estimates, including evaluating uncertainty and impacts of climate change;
- Defining sustainable management criteria, including measurable objectives and minimum thresholds to achieve the sustainability goal and avoid undesirable results;
- Establishing projects and management actions to achieve and maintain sustainability;
- Evaluating the effects of GSP implementation on adjacent basins, and other City and County planning objectives;
- Identifying beneficial uses and users within the subbasin, especially those most vulnerable to changes in groundwater management. Identifying effective strategies to engage and improve access for beneficial users in local planning efforts (e.g. Severely Disadvantaged Community or SDAC communications needs assessment) and engaging representative stakeholders into the process; and
- Conducting outreach and education to all beneficial users within the subbasin to ensure their interests and concerns are addressed in the GSP.

The California Department of Water Resources (DWR) will evaluate this GSP and its implementation over the 20-year planning horizon, including its effects on adjacent basins, to ensure the GSAs meet their obligations under SGMA.

1.1.2. Definitions Related to Sustainable Groundwater Management: Key Terms

SGMA introduced many key terms related its implementation. Definitions for some of these terms are provided below; **Appendix 1a** contains additional definitions.

California Water Code 10721 – SGMA Definitions

- "Groundwater sustainability agency" means one or more local agencies that implement the provisions of this part. For purposes of imposing fees pursuant to Chapter 8 (commencing with Section 10730) or taking action to enforce a groundwater sustainability plan, "groundwater sustainability agency" also means each local agency comprising the groundwater sustainability agency if the plan authorizes separate agency action.

- "Groundwater sustainability plan" or "plan" means a plan of a groundwater sustainability agency proposed or adopted pursuant to this part.

- "Planning and implementation horizon" means a 50-year time period over which a groundwater sustainability agency determines that plans and measures will be implemented in a basin to ensure that the basin is operated within its sustainable yield.

- "Sustainability goal" means the existence and implementation of one or more groundwater sustainability plans that achieve sustainable groundwater management by identifying and causing the implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield.

- "Sustainable groundwater management" means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.

- "Sustainable yield" means the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.

- "Undesirable result" means one or more of the following effects caused by groundwater conditions occurring throughout the basin:

    - Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.

    - Significant and unreasonable reduction of groundwater storage.

    - Significant and unreasonable seawater intrusion.

    - Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.

    - Significant and unreasonable land subsidence that substantially interferes with surface land uses.

    - Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

California Code of Regulations 351 – Groundwater Sustainability Plan Regulations

- "Measurable objectives" refer to specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions that have been included in an adopted Plan to achieve the sustainability goal for the basin.
- "Minimum threshold" refers to a numeric value for each sustainability indicator used to define undesirable results.
- "Sustainability indicator" refers to any of the effects caused by groundwater conditions occurring throughout the basin that, when significant and unreasonable, cause undesirable results, as described in Water Code Section 10721(x).

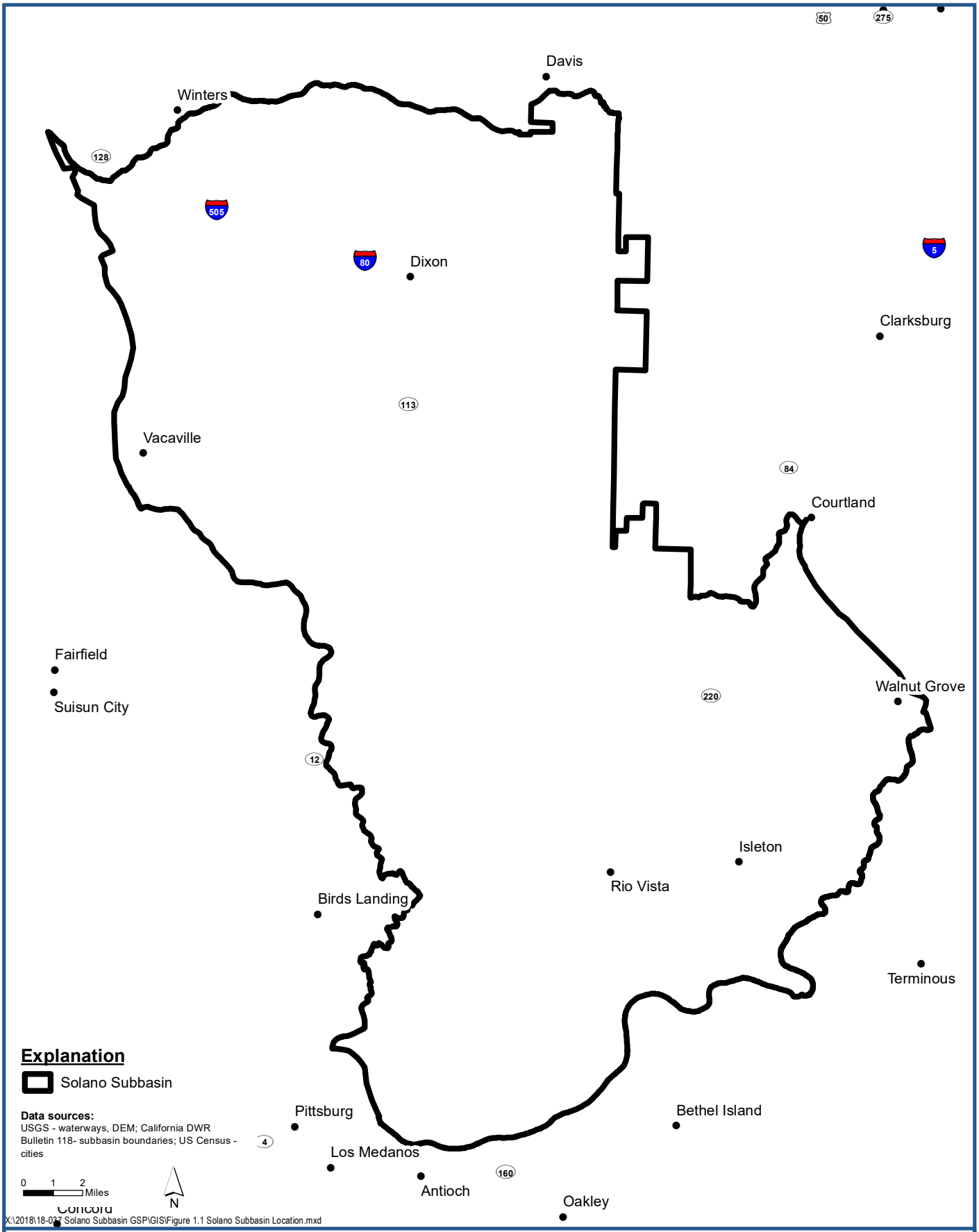
1.1.3. Description of the Solano Subbasin

The Solano Subbasin includes the southernmost portion of the Sacramento Valley Groundwater Basin and extends into the northern portion of the Sacramento-San Joaquin Delta, as defined by the DWR Bulletin 118. Its lateral boundaries are generally defined by Putah Creek on the north, the Yolo County line and the Sacramento River on the east, the North Mokelumne River on the southeast, the San Joaquin River on the south, the non-water bearing geologic units of the Great Valley Sequence on the northwest and the Suisun-Fairfield Valley Basin on the southwest. In addition, the Yolo Subbasin is located on the north and northeast sides, South American Subbasin on the east side, the Eastern San Joaquin Subbasin on the southeast side, and the Contra Costa Subbasin on the south side. The Solano Subbasin is contained mostly within Solano County, underlying the Cities of Vacaville, Dixon and Rio Vista, but portions are also within Sacramento and Yolo Counties[2] as shown on **Figure 1-1**. The 354,600 acres of the Solano Subbasin encompasses about 48% of Solano County, 11% of Sacramento County, and 0.5% of Yolo County. More detailed descriptions of the plan area and basin setting are provided in **Sections 2 and 3**.

The Solano Subbasin is hydrogeologically complex with influences from a variety of surface water features and tidal influences (e.g., Sacramento-San Joaquin Delta) and encompasses both shallow and deeper groundwater resources. The primary sources of surface water for the subbasin are watersheds in the lower elevation Coast Range Mountains, which lack significant snowpack.

Groundwater from the subbasin and surface water sources is used extensively for local agricultural, municipal, residential, and industrial uses. Additionally, ecosystems and natural habitats rely on these water resources. Land use areas in the Solano Subbasin are broadly classified across three sectors: agricultural, urban (domestic and industrial), and native vegetation. The urban land use concentrated around Vacaville, Rio Vista, Dixon, Walnut Grove, and Isleton. Land use in the Solano Subbasin is described in **Section 2**.

[2] A basin boundary modification in Yolo County was approved by DWR that aligns much of the Yolo Subbasin with the Yolo County line.



LSCE Team

Solano Subbasin Location

Solano Subbasin Groundwater Sustainability Plan
Solano County, California

Figure 1-1

1.1.4. Sustainability Goal

A sustainability goal for the Solano Subbasin is required by SGMA to manage groundwater in the overall Subbasin in a manner that avoids specified 'undesirable' results due to persistent and significant groundwater level decline, saltwater intrusion, streamflow depletion, or land sinking (subsidence). An Undesirable Result means one or more of the effects caused by groundwater conditions as defined in **Section 1.1.2**.

Minimum thresholds (i.e., measurable criteria to measure the "health of the basin") will be established to ensure actions are taken to avoid undesirable results. This will provide protection from deteriorating groundwater conditions for beneficial uses and users such as farms, household wells, cities and fish, birds, rivers, and wetlands from deteriorating groundwater conditions.

The sustainability goal will consider a range of potential future climate conditions, and the GSP will consider management actions and projects to avoid what has been agreed upon by the GSA as significant and unreasonable:

- Chronic groundwater level decline and storage depletion;
- Degradation of groundwater quality;
- Inelastic subsidence;
- Seawater intrusion, in the southern portion of the subbasin where interconnections exist with the tidal influence of surface water; and
- Streamflow depletion, including negative effects on groundwater dependent ecosystems resulting from groundwater extraction.

The process and analyses leading to the definitions for the sustainability goal and sustainability criteria, including climate change, for the Solano Subbasin are discussed in detail in **Section 6.**

1.2. Beneficial Uses, Groundwater Users and Public Participation (§ 354.10)

One of SGMA's requirements is for active and effective public input on the development of the GSP. The Solano Collaborative encouraged public participation and facilitated multiple ways for the public to stay engaged as the GSP came together which are detailed in the Community Engagement Plan available at the weblink below. Some of key public participation elements include:

- A website (https://www.solanogsp.com/solano-collaborative/) and emails with periodic updates on the GSP as well as useful information about groundwater in the region;
- An annual survey to gather direct input from stakeholders in both English and Spanish;
- A Community Advisory Committee met five times to provide local perspectives and information integral to the representation of the beneficial users and uses of groundwater in the GSP;
- Five public input workshops were held throughout the four-year plan development process at key moments when input and insight were critical; and

- Opportunities to provide public comment at local GSA meetings.

In 2015 and 2016, as GSA-eligible entities began to approach implementing SGMA, a broad public engagement effort was undertaken to determine the ideal GSA structure for the Solano Subbasin. This included the creation of a Groundwater Sustainability Advisory Group that included representatives from the GSA-eligible entities, agricultural interests including the Solano County Farm Bureau and the Solano County Agricultural Advisory Committee, and conservation-oriented entities such as the Solano Resource Conservation District (RCD). Multiple public meetings were held to introduce SGMA and get input from the community on desired governance and outcomes in the sub-basin. Participants in the Groundwater Sustainability Advisory Group and public meetings represented a range of groundwater beneficial uses, including municipal, domestic, agricultural, and industrial supplies, as well as small water systems and ecological users.

1.3. Agency Information (§ 354.6 and § 353.6)

In 2016, a series of meetings was held for the Solano Subbasin, which included representatives from all interested entities, eligible to be a GSA, as well as representatives from the agricultural community and other stakeholders. The agricultural representative groups included the Solano County Farm Bureau, Solano County Agricultural Advisory Committee, Dixon Resource Conservation District and the Solano Resource Conservation District. These meetings were held with the purpose of determining if a single GSA could be formed to comply with SGMA and implement a GSP. This group worked to develop recommendations for what the GSA(s) would look like and how to best include agricultural representation, resulting in the development of a set of principles that ultimately formed the basis for the creation of the Solano Collaborative.

1.3.1. GSAs in Solano Subbasin

The Solano Collaborative is a group of GSAs, each having authority for portions of the Solano Subbasin, working through a Collaboration Agreement in order to develop a GSP for the entire Solano Subbasin. The Solano Collaborative is made up of the five GSAs located in the Solano Subbasin:

- Solano Subbasin GSA (Solano GSA), which is a Joint Powers Agency representing City of Dixon, City of Rio Vista, Solano County, Dixon RCD, Solano RCD, Maine Prairie Water District, and Reclamation District (RD) 2068 and associated members from the Solano Farm Bureau, Solano County Agricultural Advisory Committee, and California Water Service. The Joint Powers Agreement creating the Solano GSA was made effective on June 8, 2017 and can be found in **Appendix 1b**. The Solano GSA is the plan manager for the GSP.
- City of Vacaville GSA,
- Northern Delta GSA, which is a Joint Powers Agency representing Reclamation District 349 and Reclamation District 501. The NDGSA also represents several other Reclamation and Water Districts outside the Solano Subbasin. The Joint Powers Agreement creating the NDGSA was made effective on April 12, 2018.
- Sacramento County GSA, and

- Solano Irrigation District GSA.

The location of each GSA is shown on **Figure 1-2**.

The Collaboration Agreement, which formalizes the coordination between these GSAs to develop a single GSP, was executed on February 4, 2020, and can be found in **Appendix 1b**. The Charter directing the development of recommendations for the governance structure for a GSA for the Solano Subbasin can be found in **Appendix 1c**.

These GSAs below were at one time a part of the Northern Delta GSA and were contacted by the Solano Collaborative regarding their involvement in GSP development.

- Reclamation District 3 GSA,
- Reclamation District 317 GSA,
- Reclamation District 556 GSA,
- Reclamation District 407 GSA,
- Reclamation District 554 GSA,
- Reclamation District 2111 GSA.

1.3.2. Agency Names and Mailing Addresses (§ 354.6a)

The Solano Collaborative can be contacted through any of the following GSA partners:

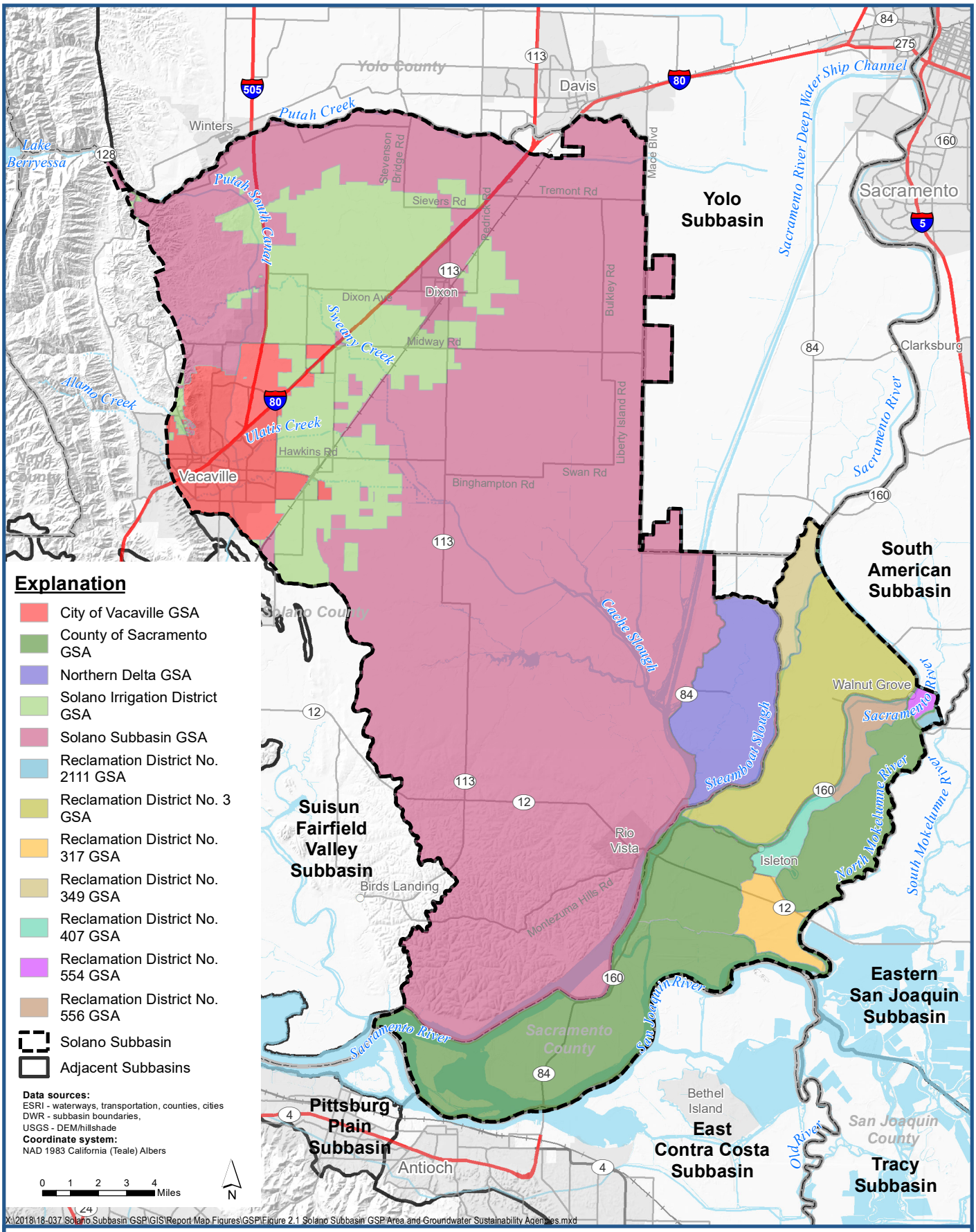
Solano Groundwater Sustainability Agency
810 Vaca Valley Parkway
Vacaville, CA 95688

City of Vacaville Groundwater Sustainability Agency
650 Merchant Street
Vacaville, CA 95688

Northern Delta Groundwater Sustainability Agency
c/o The Freshwater Trust
1717 I Street, Suite A
Sacramento, California 95811

Sacramento County Groundwater Sustainability Agency
827 7th Street
Sacramento, CA 95814

Solano Irrigation District Groundwater Sustainability Agency
810 Vaca Valley Parkway
Vacaville, CA 95688



Solano Subbasin GSP Area and Groundwater Sustainability Agencies

Groundwater Sustainability Plan
Solano Subbasin

Figure 1-2

1.3.3. Agencies' Organization and Management Structure (§ 354.6b)

Each of the above GSAs in the Solano Collaborative (described in **Section 1.3.1**) are represented by an appointed individual who is responsible for speaking on behalf of their GSA in the development of the Solano GSP. Each of the GSA representatives are staff, not elected officers, and therefore not subject to the Brown Act. In addition to representation in the Solano Collaborative, each Agency is independently responsible for coordinating with other agencies (including other GSAs) in the subbasin, engaging with interested stakeholders during GSP development, monitoring and reporting groundwater levels and water quality, and implementing and enforcing the provisions adopted in the Solano Subbasin GSP.

The Solano Collaborative is facilitated by Ag Innovations and receives additional input from The Freshwater Trust and Local Government Commission regarding community outreach and engagement. The Freshwater Trust and Local Government Commission inform and engage specifically with vulnerable communities who are dependent on groundwater, with communities who have been historically marginalized, and with communities defined as severely disadvantaged or disadvantaged based on median household income metrics. The targeted engagement effort is funded by the Department of Water Resources Proposition 1 Sustainable Groundwater Planning Grant Program for Engagement of Severely Disadvantaged Communities. The Freshwater Trust and Local Government Commission identify and integrate the input and interests of Disadvantaged and Severely Disadvantaged Communities through translated materials, web content, surveys, interviews, focus groups, and additional community outreach tools that support equitable access to information and decision making. Luhdorff & Scalmanini, Kennedy Jenks, Davids Engineering, West Yost, and ERA Economics represents the Technical Team that also contribute to the development of the GSP. **Figure 1-3** displays the structure of the Solano Collaborative and the Agencies involved.

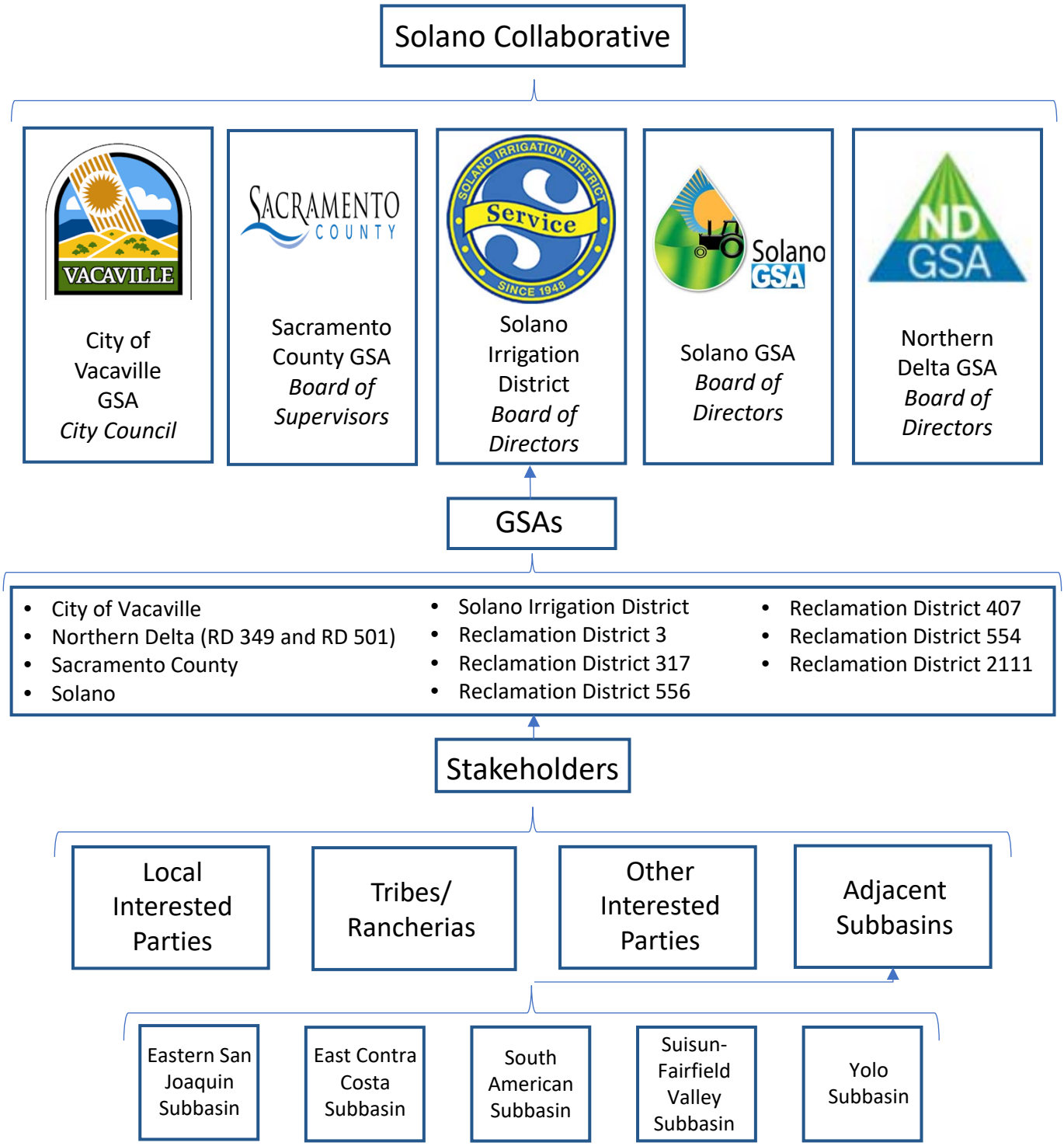
1.3.4. Authority of Agencies (§ 354.6d)

The agencies in the Solano Collaborative entered into a formalized Collaboration Agreement **(Appendix 1b**) in 2020 to facilitate the development of the GSP. The Collaboration Agreement outlines meeting and voting protocol, the structure of subcommittees and workgroups, responsibilities of the Agencies involved, and the core agreements of the Solano Collaborative that demonstrate the legal authority to implement the GSP.

The objectives of the Solano Collaborative during the development of the GSP include:

- Sharing information, ideas, and concerns pertaining to the SGMA process in the subbasin;
- Soliciting and responding to input from stakeholders;
- Supporting the development of GSP recommendations that represent the GSAs' and stakeholders' interests and pursue long-term, sustainable, management of groundwater resources; and
- Negotiating consensus on the development of a GSP including governance structure and implementation.

Solano Subbasin GSP Organizational and Management Structure



LSCE Team

Solano Subbasin GSP Organizational and Management Structure

Solano Subbasin Groundwater Sustainability Plan
Solano County, California

Figure 1-3

The Collaboration Agreement creates an alliance between the various Agencies and allows the Agencies to work collaboratively to meet the requirements of SGMA and the above listed objectives. These members will act on behalf of their respective agencies and will be required to take any recommendations developed by the Solano Collaborative to their respective agency boards for approval by resolution or motion prior to implementation. The Collaboration Agreement authorizes the signatory agencies to vote on any necessary action required to provide guidance concerning the preparation of the Solano Subbasin GSP. As identified in Section 8 of the Collaboration Agreement, the Agencies will be responsible for final, unanimous approval of the GSP, and the periodic review of the GSP as required by DWR.

The Collaboration Agreement also states that the cost for the development of the GSP will be divided equitably within the subbasin, and the cost of implementation shall be allocated to the individual GSAs as appropriate.

The Collaboration Agreement is to be upheld and administered by the GSAs in the Solano Collaborative, as represented by one member and one alternate for each GSA. These members will act on behalf of their respective agencies and will be required to approve recommendations developed by the Collaboration by resolution or motion prior to implementation. Meetings may be called as needed by either the plan manager or any two members in order to carry out the activities of the Solano Collaborative. A majority of the members must be present at a meeting in order for voting to take place. Voting must be unanimous and affirmative in order for items to be approved.

The Collaboration Agreement is a formal agreement that requires the member Agencies to uphold the core decisions of the Solano Collaborative, including collaboration, coordination, and groundwater governance, and through these agreements develop a GSP for the subbasin that meets SGMA compliance.

1.3.5. Plan Implementation Cost Estimate (§ 354.6e)

The GSAs in the Solano Subbasin are required to demonstrate that future costs to comply with SGMA, including costs to implement the necessary management actions, projects, and ongoing SGMA monitoring and reporting requirements, can be met. **Section 9** discusses the estimated future SGMA compliance costs and the means by which the GSAs anticipate meeting these costs.

1.3.6. Description of Initial Notification (§ 353.6)

The first step in preparing a GSP is notifying DWR, in writing, of the intent to develop a GSP. This document is called the Initial Notification and provides DWR with general information about the Solano Collaborative such as contact information, its GSP development process, and ways for the public to get involved in the process. The Solano Collaborative submitted its Initial Notification to DWR on May 15, 2018, which is posted on the DWR website: https://sgma.water.ca.gov/portal/gsp/init/all and provided as **Appendix 1d**.

1.4. GSP Organization

This Report will be organized into the following sections:

- Section 1: Introduction
- Section 2: Plan Area
- Section 3: Basin Setting
- Section 4: Historical, Current, and Projected Water Supplies
- Section 5: Water Budget
- Section 6: Solano Subbasin Sustainability Goal and Sustainable Management Criteria
- Section 7: Monitoring Data Management and Reporting
- Section 8: Sustainable Groundwater Management: Projects and Management Actions
- Section 9: Plan Implementation
- Section 10: References

APPENDIX 1a

Definitions Related to Sustainable Groundwater Management: Key Terms

California Water Code 10721 – SGMA Definitions

- "Adjudication action" means an action filed in the superior or federal district court to determine the rights to extract groundwater from a basin or store water within a basin, including, but not limited to, actions to quiet title respecting rights to extract or store groundwater or an action brought to impose a physical solution on a basin.

- "Basin" means a groundwater basin or subbasin identified and defined in Bulletin 118 or as modified pursuant to Chapter 3 (commencing with Section 10722).

- "Bulletin 118" means the department's report entitled "California's Groundwater: Bulletin 118" updated in 2003, as it may be subsequently updated or revised in accordance with Section 12924.

- "Coordination agreement" means a legal agreement adopted between two or more groundwater sustainability agencies that provides the basis for coordinating multiple agencies or groundwater sustainability plans within a basin pursuant to this part.

- "De minimis extractor" means a person who extracts, for domestic purposes, two acre-feet or less per year.

- "Governing body" means the legislative body of a groundwater sustainability agency.

- "Groundwater" means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels unless included pursuant to Section 10722.5.

- "Groundwater extraction facility" means a device or method for extracting groundwater from within a basin.

- "Groundwater recharge" or "recharge" means the augmentation of groundwater, by natural or artificial means.

- "Groundwater sustainability agency" means one or more local agencies that implement the provisions of this part. For purposes of imposing fees pursuant to Chapter 8 (commencing with Section 10730) or taking action to enforce a groundwater sustainability plan, "groundwater sustainability agency" also means each local agency comprising the groundwater sustainability agency if the plan authorizes separate agency action.

- "Groundwater sustainability plan" or "plan" means a plan of a groundwater sustainability agency proposed or adopted pursuant to this part.

- "Groundwater sustainability program" means a coordinated and ongoing activity undertaken to benefit a basin, pursuant to a groundwater sustainability plan.

- "In-lieu use" means the use of surface water by persons that could otherwise extract groundwater in order to leave groundwater in the basin.
- "Local agency" means a local public agency that has water supply, water management, or land use responsibilities within a groundwater basin.
- "Operator" means a person operating a groundwater extraction facility. The owner of a groundwater extraction facility shall be conclusively presumed to be the operator unless a satisfactory showing is made to the governing body of the groundwater sustainability agency that the groundwater extraction facility actually is operated by some other person.
- "Owner" means a person owning a groundwater extraction facility or an interest in a groundwater extraction facility other than a lien to secure the payment of a debt or other obligation.
- "Personal information" has the same meaning as defined in Section 1798.3 of the Civil Code.
- "Planning and implementation horizon" means a 50-year time period over which a groundwater sustainability agency determines that plans and measures will be implemented in a basin to ensure that the basin is operated within its sustainable yield.
- "Public water system" has the same meaning as defined in Section 116275 of the Health and Safety Code.
- "Recharge area" means the area that supplies water to an aquifer in a groundwater basin.
- "Sustainability goal" means the existence and implementation of one or more groundwater sustainability plans that achieve sustainable groundwater management by identifying and causing the implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield.
- "Sustainable groundwater management" means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.
- "Sustainable yield" means the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.
- "Undesirable result" means one or more of the following effects caused by groundwater conditions occurring throughout the basin:
    - Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.

- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

- "Water budget" means an accounting of the total groundwater and surface water entering and leaving a basin including the changes in the amount of water stored.
- "Watermaster" means a watermaster appointed by a court or pursuant to other law.
- "Water year" means the period from October 1 through the following September 30, inclusive.
- "Wellhead protection area" means the surface and subsurface area surrounding a water well or well field that supplies a public water system through which contaminants are reasonably likely to migrate toward the water well or well field.

California Code of Regulations 351 – Groundwater Sustainability Plan Regulations

- "Agency" refers to a groundwater sustainability agency as defined in the Act.
- "Agricultural water management plan" refers to a plan adopted pursuant to the Agricultural Water Management Planning Act as described in Part 2.8 of Division 6 of the Water Code, commencing with Section 10800 et seq.
- "Alternative" refers to an alternative to a Plan described in Water Code Section 10733.6.
- "Annual report" refers to the report required by Water Code Section 10728.
- "Baseline" or "baseline conditions" refer to historic information used to project future conditions for hydrology, water demand, and availability of surface water and to evaluate potential sustainable management practices of a basin.
- "Basin setting" refers to the information about the physical setting, characteristics, and current conditions of the basin as described by the Agency in the hydrogeologic conceptual model, the groundwater conditions, and the water budget, pursuant to Subarticle 2 of Article 5.
- "Best available science" refers to the use of sufficient and credible information and data, specific to the decision being made and the time frame available for making that decision, that is consistent with scientific and engineering professional standards of practice.

- "Best management practice" refers to a practice, or combination of practices, that are designed to achieve sustainable groundwater management and have been determined to be technologically and economically effective, practicable, and based on best available science.
- "CASGEM" refers to the California Statewide Groundwater Elevation Monitoring Program developed by the Department pursuant to Water Code Section 10920 et seq., or as amended.
- "Data gap" refers to a lack of information that significantly affects the understanding of the basin setting or evaluation of the efficacy of Plan implementation, and could limit the ability to assess whether a basin is being sustainably managed.
- "Groundwater dependent ecosystem" refers to ecological communities or species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface.
- "Groundwater flow" refers to the volume and direction of groundwater movement into, out of, or throughout a basin.
- "Interconnected surface water" refers to surface water that is hydraulically connected at any point by a continuous saturated zone to the underlying aquifer and the overlying surface water is not completely depleted.
- "Interested parties" refers to persons and entities on the list of interested persons established by the Agency pursuant to Water Code Section 10723.4.
- "Interim milestone" refers to a target value representing measurable groundwater conditions, in increments of five years, set by an Agency as part of a Plan.
- "Management area" refers to an area within a basin for which the Plan may identify different minimum thresholds, measurable objectives, monitoring, or projects and management actions based on differences in water use sector, water source type, geology, aquifer characteristics, or other factors.
- "Measurable objectives" refer to specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions that have been included in an adopted Plan to achieve the sustainability goal for the basin.
- "Minimum threshold" refers to a numeric value for each sustainability indicator used to define undesirable results.
- "NAD83" refers to the North American Datum of 1983 computed by the National Geodetic Survey, or as modified.
- "NAVD88" refers to the North American Vertical Datum of 1988 computed by the National Geodetic Survey, or as modified.
- "Plain language" means language that the intended audience can readily understand and use because that language is concise, well-organized, uses simple vocabulary, avoids excessive acronyms and technical language, and follows other best practices of plain language writing.

- "Plan" refers to a groundwater sustainability plan as defined in the Act.
- "Plan implementation" refers to an Agency's exercise of the powers and authorities described in the Act, which commences after an Agency adopts and submits a Plan or Alternative to the Department and begins exercising such powers and authorities.
- "Plan manager" is an employee or authorized representative of an Agency, or Agencies, appointed through a coordination agreement or other agreement, who has been delegated management authority for submitting the Plan and serving as the point of contact between the Agency and the Department.
- "Principal aquifers" refer to aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to wells, springs, or surface water systems.
- "Reference point" refers to a permanent, stationary and readily identifiable mark or point on a well, such as the top of casing, from which groundwater level measurements are taken, or other monitoring site.
- "Representative monitoring" refers to a monitoring site within a broader network of sites that typifies one or more conditions within the basin or an area of the basin.
- "Seasonal high" refers to the highest annual static groundwater elevation that is typically measured in the Spring and associated with stable aquifer conditions following a period of lowest annual groundwater demand.
- "Seasonal low" refers to the lowest annual static groundwater elevation that is typically measured in the Summer or Fall, and associated with a period of stable aquifer conditions following a period of highest annual groundwater demand.
- "Seawater intrusion" refers to the advancement of seawater into a groundwater supply that results in degradation of water quality in the basin, and includes seawater from any source.
- "Statutory deadline" refers to the date by which an Agency must be managing a basin pursuant to an adopted Plan, as described in Water Code Sections 10720.7 or 10722.4.
- "Sustainability indicator" refers to any of the effects caused by groundwater conditions occurring throughout the basin that, when significant and unreasonable, cause undesirable results, as described in Water Code Section 10721(x).
- "Uncertainty" refers to a lack of understanding of the basin setting that significantly affects an Agency's ability to develop sustainable management criteria and appropriate projects and management actions in a Plan, or to evaluate the efficacy of Plan implementation, and therefore may limit the ability to assess whether a basin is being sustainably managed.
- "Urban water management plan" refers to a plan adopted pursuant to the Urban Water Management Planning Act as described in Part 2.6 of Division 6 of the Water Code, commencing with Section 10610 et seq.

- "Water source type" represents the source from which water is derived to meet the applied beneficial uses, including groundwater, recycled water, reused water, and surface water sources identified as Central Valley Project, the State Water Project, the Colorado River Project, local supplies, and local imported supplies.

- "Water use sector" refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation.

- (an) "Water year type" refers to the classification provided by the Department to assess the amount of annual precipitation in a basin.

Additional Key Definitions

- "Beneficial Use" is use of water resulting in appreciable gain or benefit to the user. The following uses are recognized as beneficial in California: domestic consumption, irrigation, energy production, municipal consumption, mining, industrial use, fish and wildlife preservation, recreation, aquaculture, stock watering, water quality maintenance, frost protection, and heat control.

- "Beneficial User" is an individual or parties who have a lawful use of water, a public resource, that is both beneficial and reasonable.

- "Interested Parties" are persons and entities on the list of interested persons established by the Agency pursuant to Water Code Section 10723.4.

- "Impacted Groundwater User" is an individual or parties who use groundwater that is directly impacted by the local and regional use of water resources.

- "Small Water System" provides piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

- "Stakeholder" is an individual or parties who are affected by and thus have an interest in water resources. Stakeholders have various types of roles and involvement in groundwater sustainability planning to ensure their interests are represented.

APPENDIX 1b

GSA Formation Agreements and Collaboration Agreements for the Preparation of the Groundwater Sustainability Plan for the Solano Subbasin

APPENDIX 1c

GSA Staff Advisory Group Process Charter

APPENDIX 1d

Initial Notification of GSP Formation