California's Sustainable Groundwater Management Act

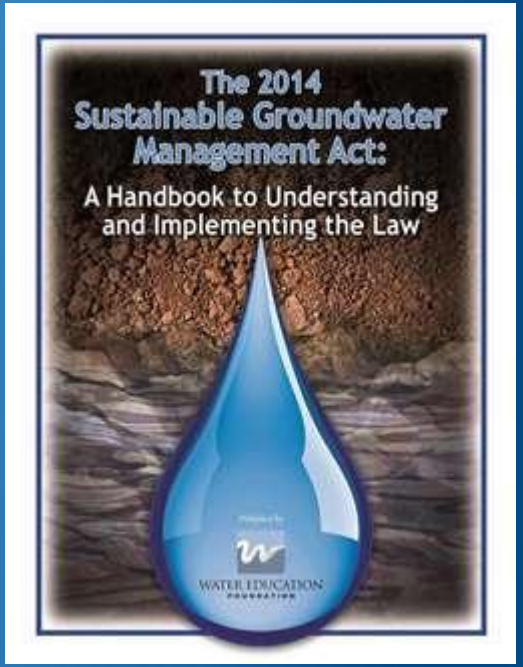
Santa Margarita Groundwater Basin
Advisory Committee
April 19, 2017

Derrik Williams
HydroMetrics WRI

What is the Sustainable Groundwater Management Act (SGMA)?

SGMA is California's Groundwater Management Law

- Legislation Passed in September 2014
- Became law January 1, 2015
- Requires certain groundwater basins in California to manage their groundwater resources *sustainably*



SGMA is a Compromise

Complete State Control of Groundwater Pumping and Recharge

Complete Local Control of Groundwater Pumping and Recharge

Compromise

- Mandatory for locals to develop GW management plans
- These plans must meet certain broad criteria
- The State steps in if locals fail to adequately manage GW

Crucial to SGMA is Local Control

Plans must meet certain criteria, but within those criteria:

- Locals define what the groundwater basin should look like in 20 years
- Locals define what is unacceptable
- Locals define how to reach your goals
- No changes to groundwater management that local water managers and other water users don't want

Who needs to comply with SGMA

Who is subject to SGMA?

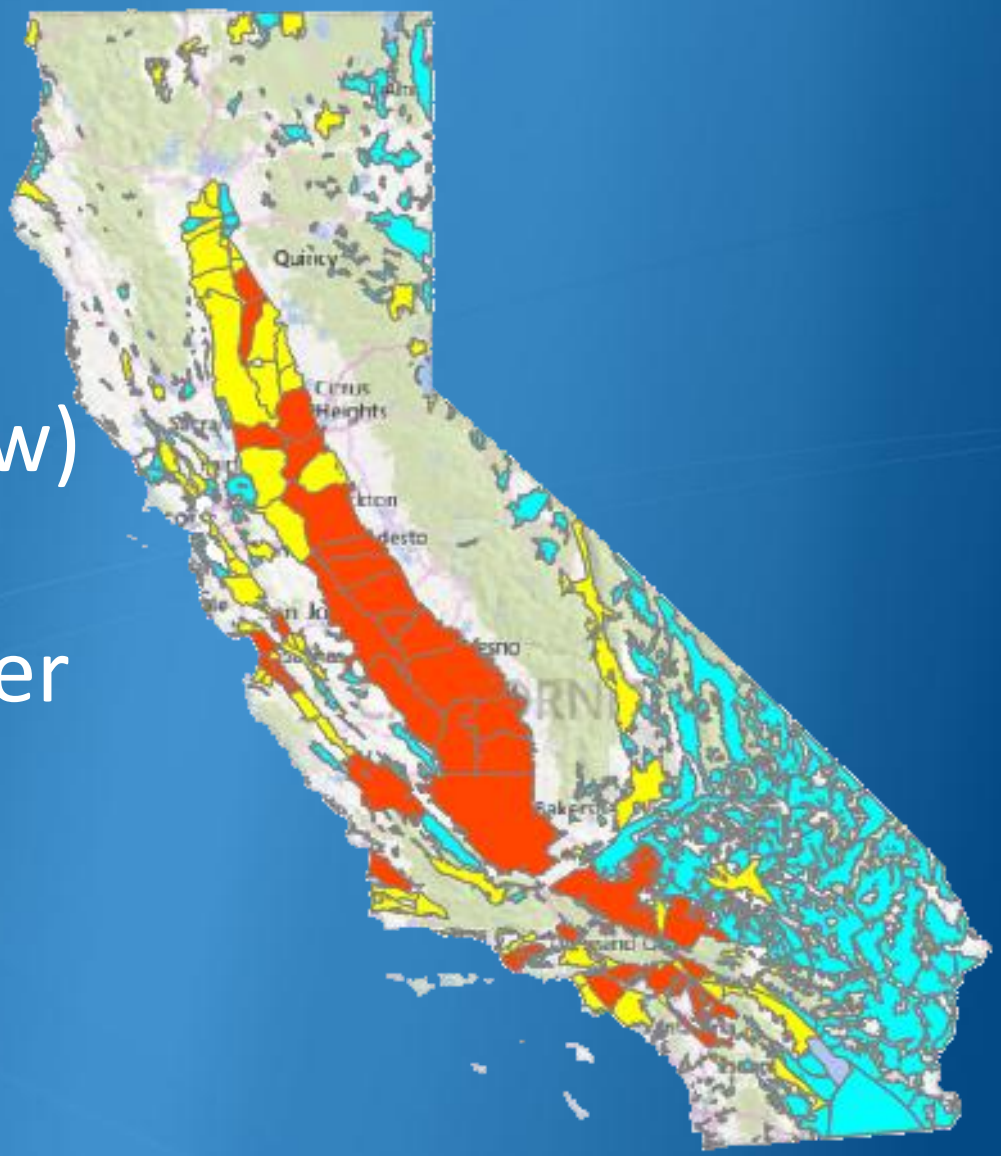
California has
515 groundwater
basins

High Priority and Medium Priority Basins must Implement SGMA

- Prioritization is NOT
  - An assessment of how important your basin is, nor
  - How important groundwater is to you
- Prioritization allows DWR to focus its limited resources on basins with high groundwater use compared to the rest of the State

Who is subject to SGMA?

SGMA applies to
127 medium (yellow)
And high (orange)
priority groundwater
basins



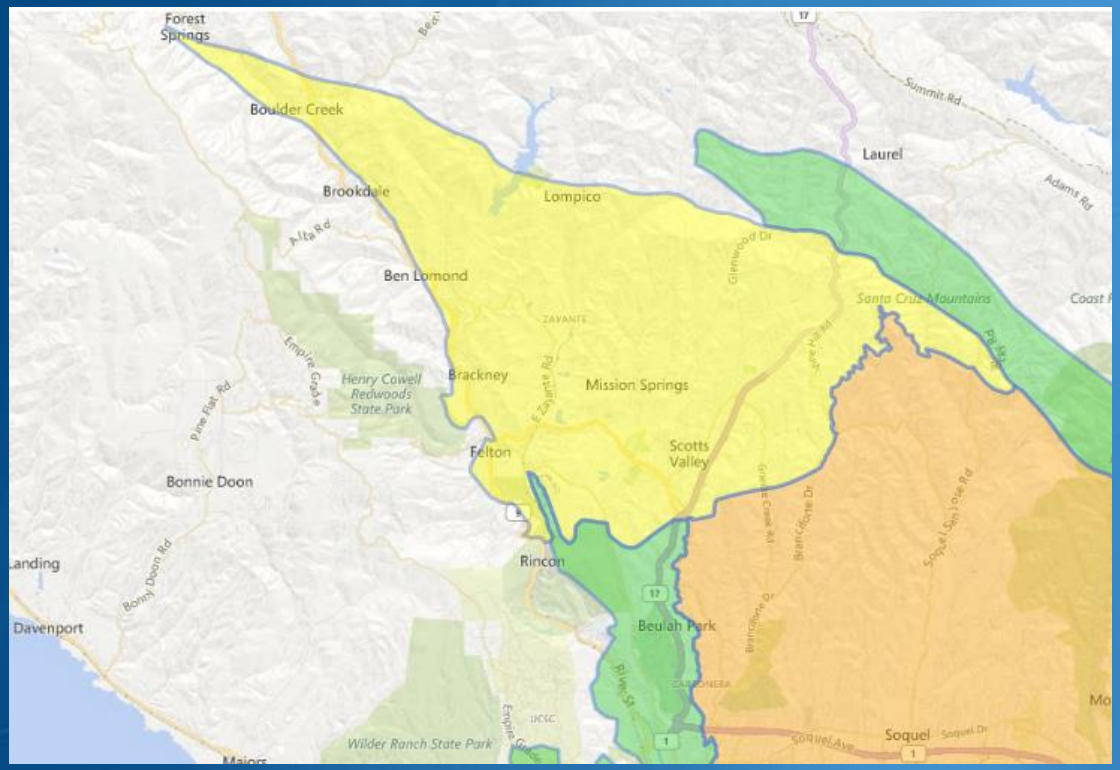
Who is subject to SGMA?

Santa Margarita Basin did not exist (in the eyes of DWR) when high and medium prioritization was established.

Justification for DWR Recognizing the Santa Margarita Basin

- Scotts Valley Water District, San Lorenzo Valley Water District, and the County of Santa Cruz have always managed the greater basin as a single resource
- 1994 Groundwater Management Plan managed the greater Santa Margarita Groundwater basin
- Wells throughout the area draw from the same aquifers, and influence each other

DWR Recognizes the Santa Margarita GW Basin in 2016



The Santa Margarita GW Basin will be assigned a priority this summer

Prioritization Criteria

1. Overlying population density;
2. Projected growth of overlying population;
3. Public supply well density;
4. Total well density;
5. Overlying irrigated acreage;
6. Reliance on groundwater as the primary source of water;
7. Impacts on the groundwater
8. Any other information determined to be relevant by the Department.

Note: Basins pumping less that 2,000 acre-feet per year are very low priority.

Previous Rankings

- Scotts Valley Basin: 20.75
- Felton Area Basin: 13.75

Both ranked very low because total pumping < 2,000 af/year

DWR Previous Ranking Scores

High Priority	> 21.08
Medium Priority	13.43 - 21.07
Low Priority	5.75 - 13.42
Very Low Priority	< 5.75

Santa Margarita Basin will likely be listed as medium priority, and subject to SGMA.

SGMA Basics

Definitions

- **Groundwater Sustainability Agency (GSA)**

  The local entity responsible for sustainably managing groundwater under SGMA
- **Groundwater Sustainability Plan (GSP)**

  The written plan developed by the GSA that defines sustainability, and presents the plan for achieving groundwater sustainability

General SGMA Workflow

Drafting a GSP

A GSP is the Fundamental Management Document Developed by a GSA

- Presents a plan for achieving sustainability in 20 years
- Developed cooperatively with stakeholder outreach
- Does not change any water rights

No GSPs Exist

Lots of free advice of limited utility

- Based on our discussions with DWR and SWRCB
  - DWR contractor
  - ACWA committees
- Based on experience with groundwater management plans

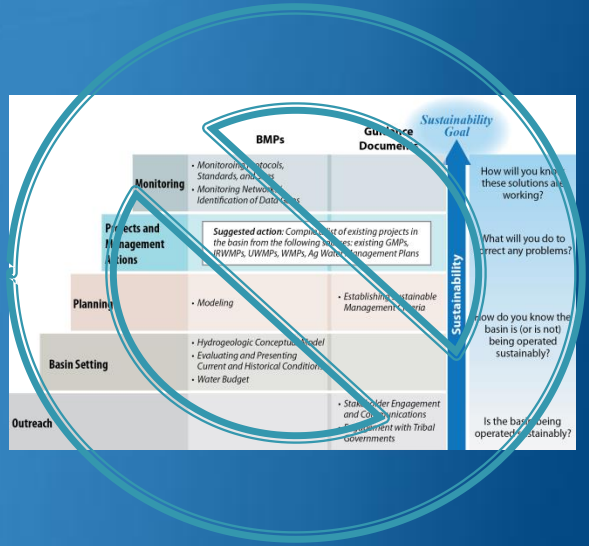
Pretty good idea of what is expected of GSPs

NOT the State's opinions

Linus as SGMA consultant

No One Road/Formula

No Linear Approach



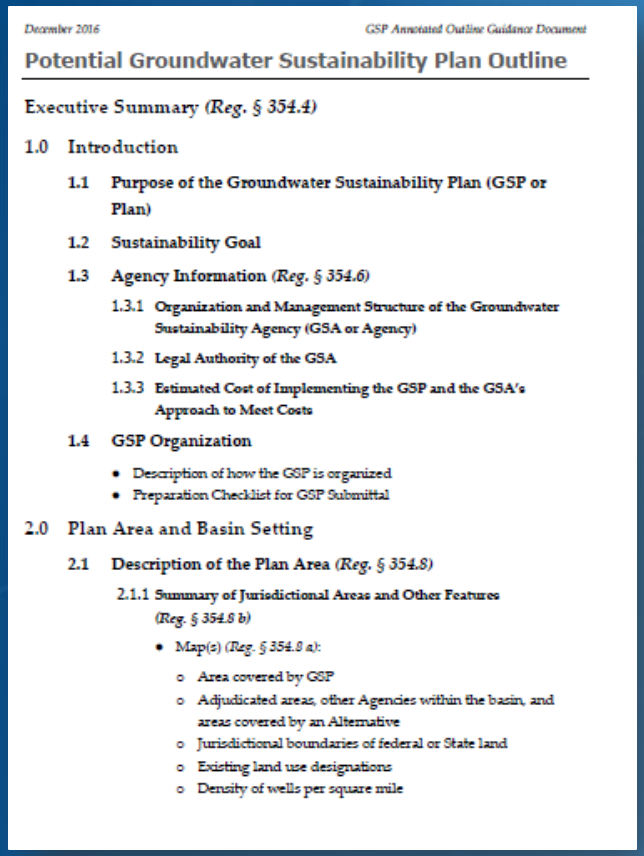
Parts of a GSP

- Groundwater basin description
- Water budget for the basin
- Define sustainability
  - Future groundwater levels
  - Future groundwater quality
  - Etc.
- Establish a groundwater monitoring network
- Identify projects and management actions to achieve sustainability
- Estimated cost and schedule

Most Problematic GSP Aspects?

GSP Structure – Not Difficult

- Example GSP Outline
- DWR Checklist



December 2016 *GSP Annotated Outline Guidance Document*

Potential Groundwater Sustainability Plan Outline

Executive Summary *(Reg. § 354.4)*

1.0 Introduction

- 1.1 Purpose of the Groundwater Sustainability Plan (GSP or Plan)
- 1.2 Sustainability Goal
- 1.3 Agency Information *(Reg. § 354.6)*
  - 1.3.1 Organization and Management Structure of the Groundwater Sustainability Agency (GSA or Agency)
  - 1.3.2 Legal Authority of the GSA
  - 1.3.3 Estimated Cost of Implementing the GSP and the GSA's Approach to Meet Costs
- 1.4 GSP Organization
  - Description of how the GSP is organized
  - Preparation Checklist for GSP Submittal

2.0 Plan Area and Basin Setting

- 2.1 Description of the Plan Area *(Reg. § 354.8)*
  - 2.1.1 Summary of Jurisdictional Areas and Other Features *(Reg. § 354.8 b)*
    - Map(s) *(Reg. § 354.8 a)*:
      - Area covered by GSP
      - Adjudicated areas, other Agencies within the basin, and areas covered by an Alternative
      - Jurisdictional boundaries of federal or State land
      - Existing land use designations
      - Density of wells per square mile

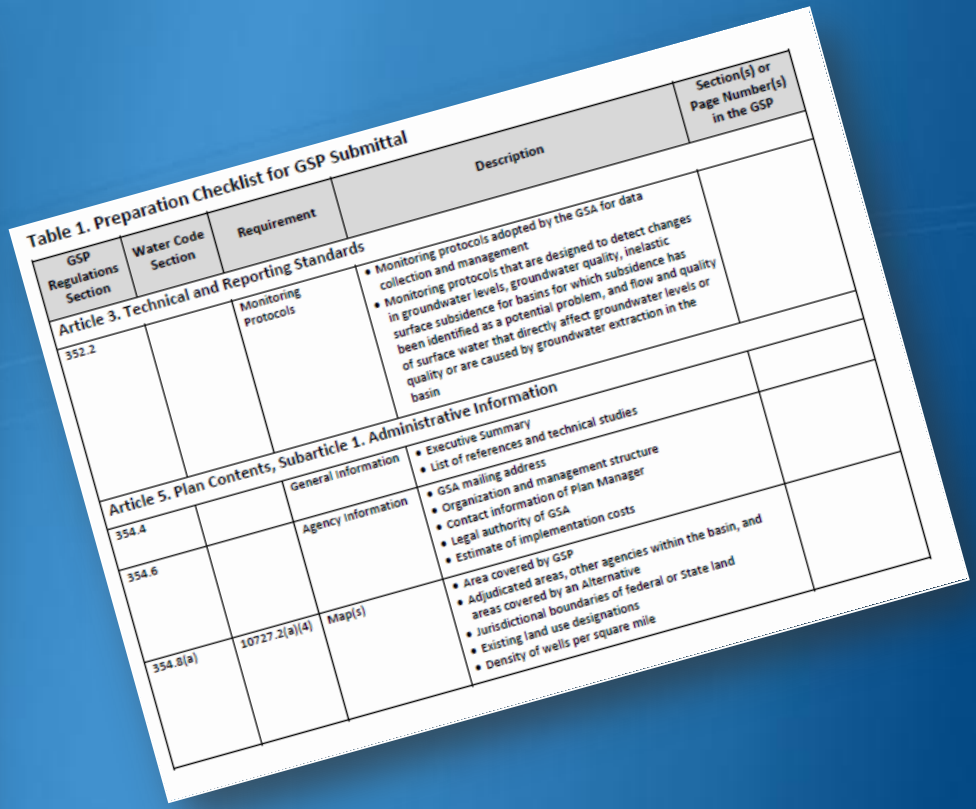


Table 1. Preparation Checklist for GSP Submittal

GSP Regulations Section	Water Code Section	Requirement	Description	Section(s) or Page Number(s) in the GSP
Article 3. Technical and Reporting Standards				
352.2		Monitoring Protocols	• Monitoring protocols adopted by the GSA for data collection and management • Monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin	
Article 5. Plan Contents, Subarticle 1. Administrative Information				
354.4		General Information	• Executive Summary • List of references and technical studies	
354.6		Agency Information	• GSA mailing address • Organization and management structure • Contact information of Plan Manager • Legal authority of GSA • Estimate of implementation costs	
354.8(a)	10727.2(a)(4)	Map(s)	• Area covered by GSP • Adjudicated areas, other agencies within the basin, and areas covered by an Alternative • Jurisdictional boundaries of federal or State land • Existing land use designations • Density of wells per square mile	

Not the Most Difficult Parts*

- Plan area description
- Geologic setting
- Monitoring plans and protocols

*Not easy, but not the most difficult

Difficult Parts of the GSP

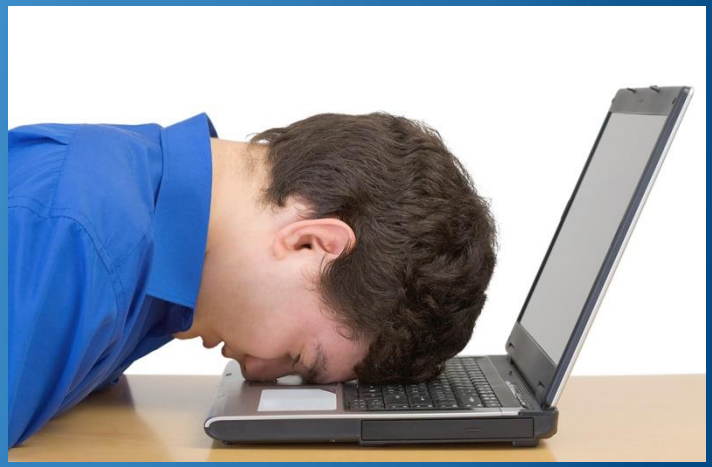
- Undesirable Result (basinwide)
- Minimum Thresholds
- Measurable Objectives

} Defining Sustainability

- Coordinated data and water budget
- Coordination agreements

} N/A

- Some projects or programs
  - Water market structures
  - Beneficiary pays



What is sustainability in a GSP

- Avoid six undesirable results

What is an Undesirable Result?

- Quantitative
- Reflects local concerns
- Developed locally
- Must be the same throughout the Basin
- Must be based on data collected from the Basin
  - Groundwater levels
  - Groundwater quality
  - Ground surface elevation

How Good is Good Enough?

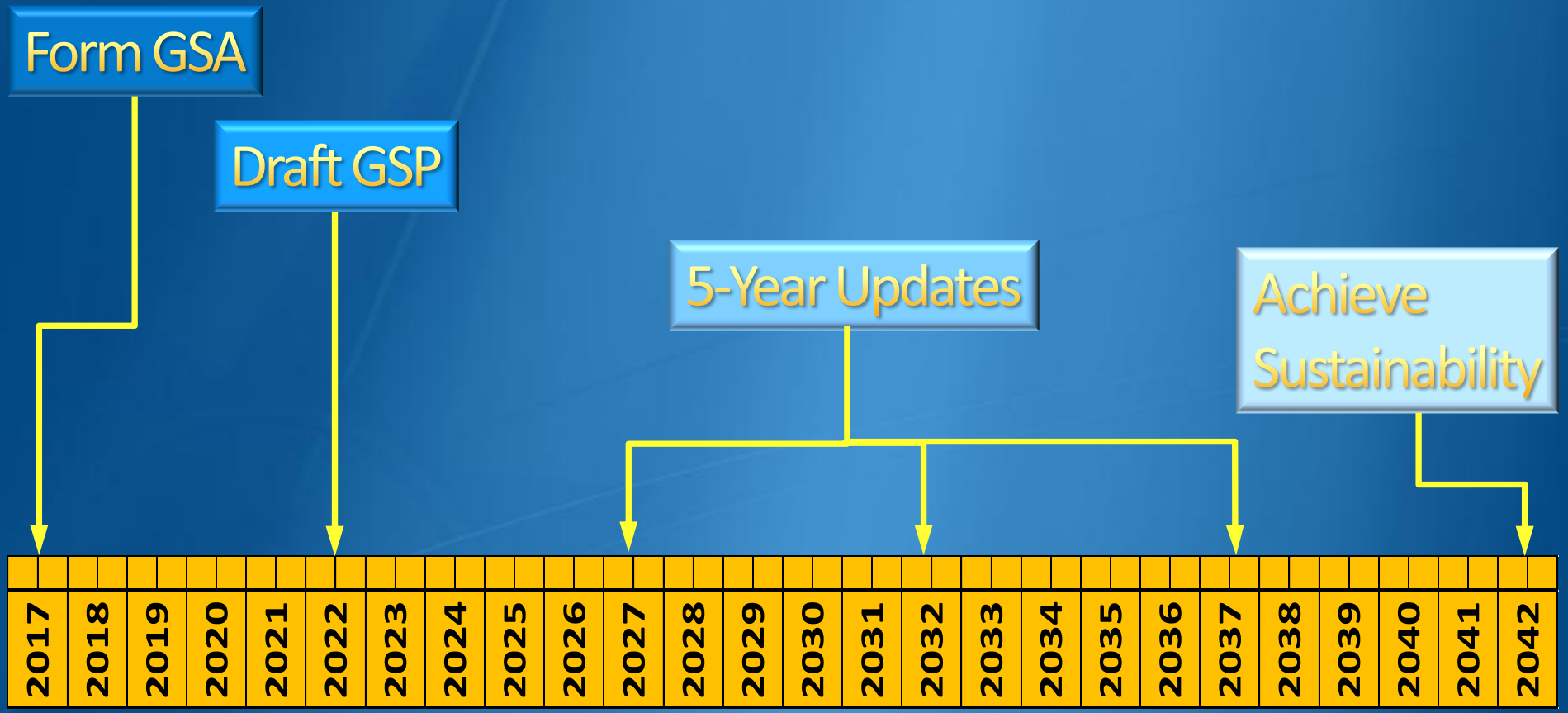
GSPs must demonstrate a path to compliance

- Substantial compliance acknowledges our understanding is imperfect
  - Analyze existing data as completely as possible
  - Identify data gaps (iterative)
  - Fill data gaps as necessary to set undesirable results
  - Include a data collection plan in your GSP
- Measurable thresholds and objectives must be clear and defensible
- Substantially compliant does not mean substantially complete

Costs

- Cost drivers are discussion-dependent aspects
  - Coordination agreements
  - Developing minimum thresholds and measurable objectives
  - Agreeing on management actions
- Costs are generally not strongly dependent on basin size
- Upcoming state proposition 1 grants

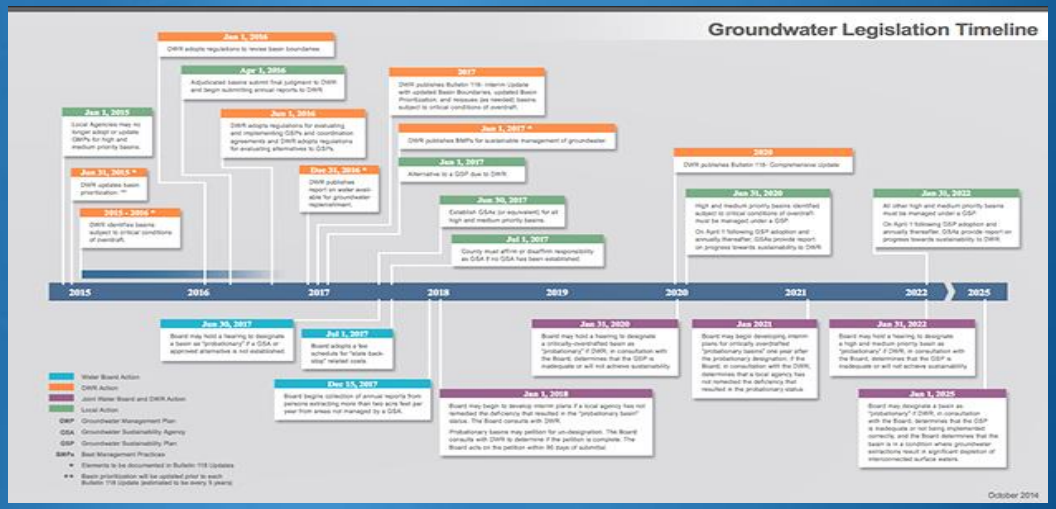
How Much Time do We Have?



Santa Margarita Groundwater Basin may be allowed a delay

Timeline Advice

- Start early – even non-critically overdrafted basins
- Don’t take on everything at once – plan your work
- Start discussions with neighbors and other GSAs
- Don’t panic



Final Advice

- Understand the SGMA terms, GSP outline, and decision process.
- Start an easy task (just get started)
- Identify difficult hurdles, and start discussions early
- Keep a facilitator involved
- Involve DWR early
- Address funding early
- Prepare for proposition 1 grants

Questions

Derrik Williams
(510) 903-0458 x301
Derrik @HydroMetricsWRI.com