

Sustainable Groundwater Management Act and Groundwater Sustainability Plan for the Napa Valley Subbasin

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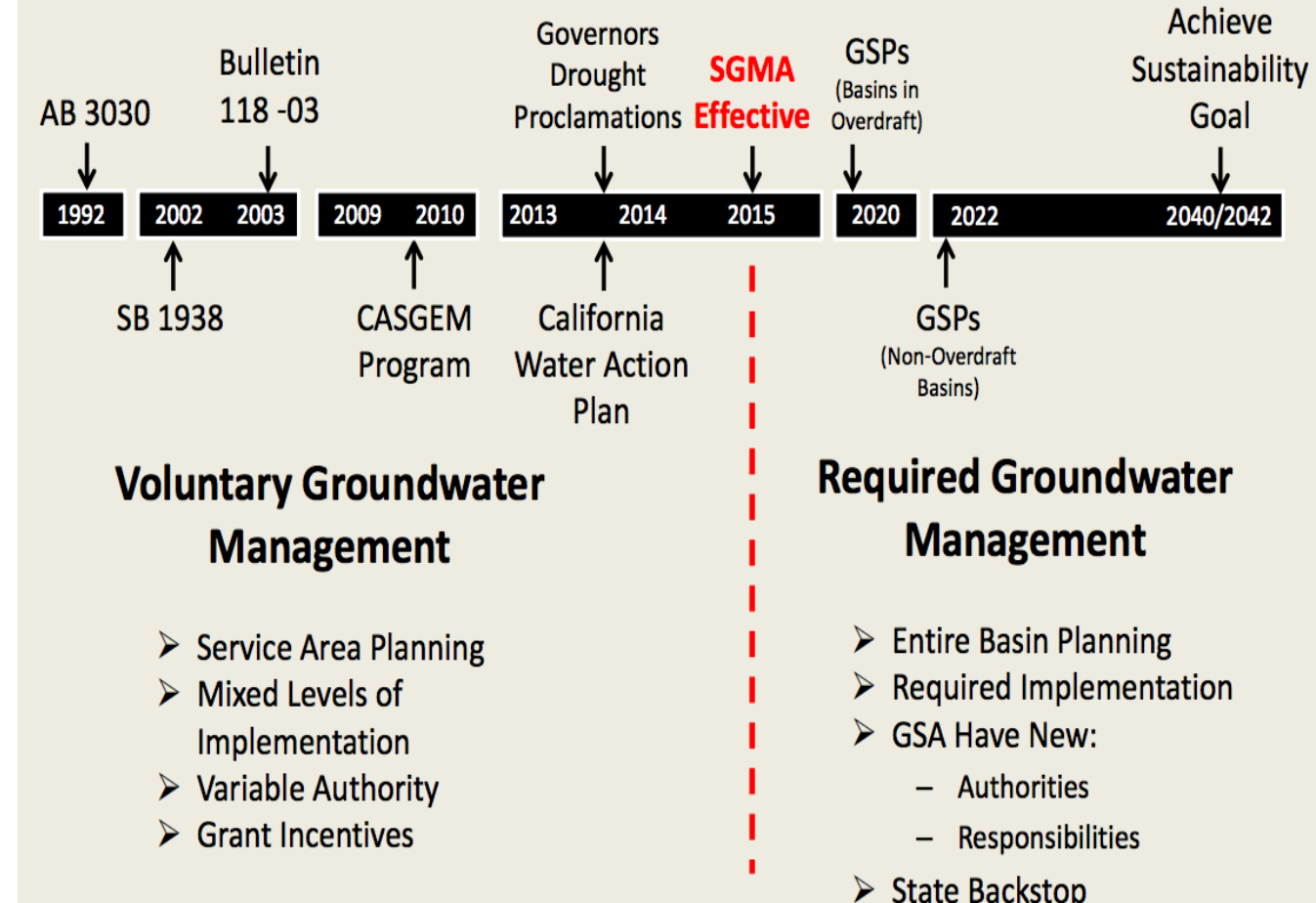
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Groundwater Management in California



- Recent multi-year drought led California to enact new groundwater management requirements
- Transition from Voluntary Management to Required Management in medium and high priority basins.



The Sustainable Groundwater Management Act (SGMA) will help to ensure groundwater resources are available for the future.

Sustainable Groundwater Management Act



- SGMA established robust framework for **sustainable management** of groundwater resources for the first time in CA's history
- Enacted in September 2014, and implementation began January 1, 2015
- Requires groundwater sustainability plans in medium and high priority basins
- Recognizes management is most effective when done **at the local level** by local agencies with adequate info, tools, etc.
- Creates state "backstop" for intervention
- Defines timeframe for accomplishing goals

Local Control



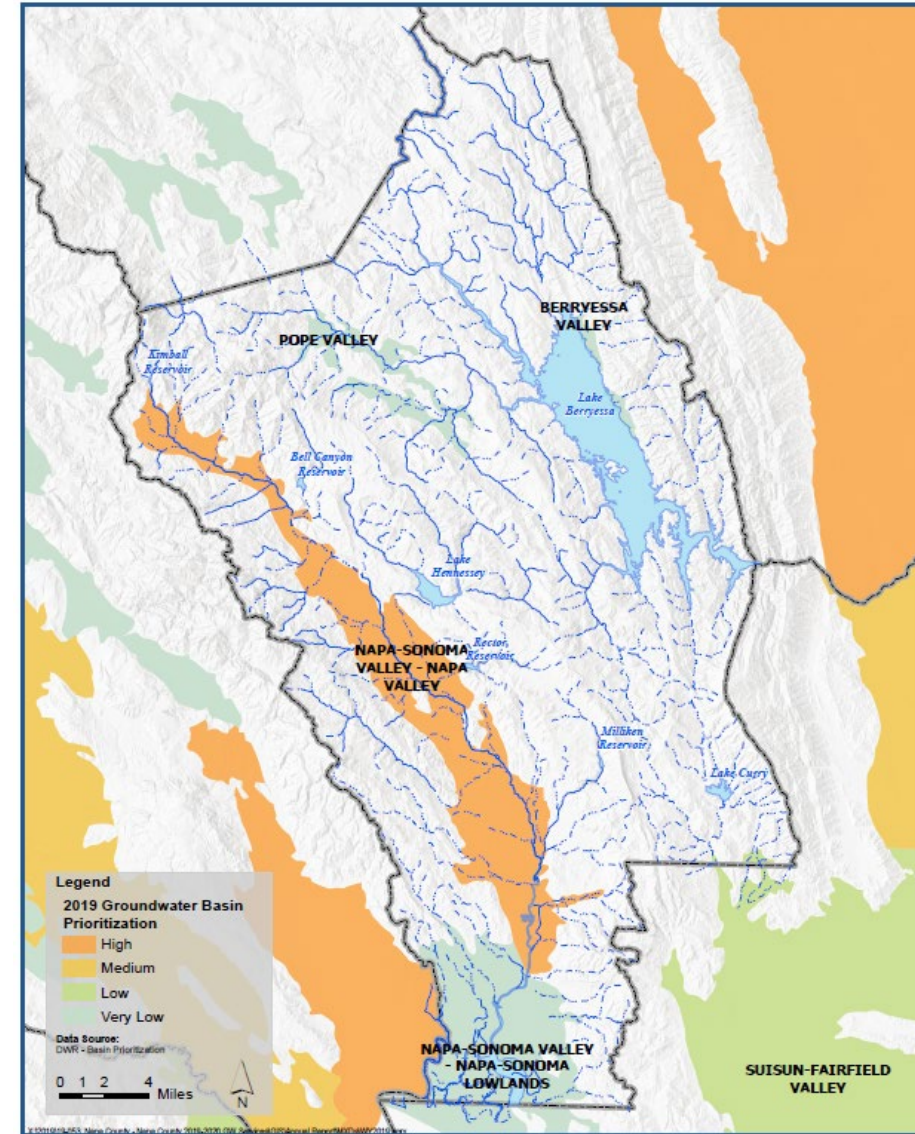
"A central feature of these bills is the recognition that groundwater management in California is best accomplished locally."

Governor Jerry Brown, September
2014

Napa Valley Subbasin Prioritization



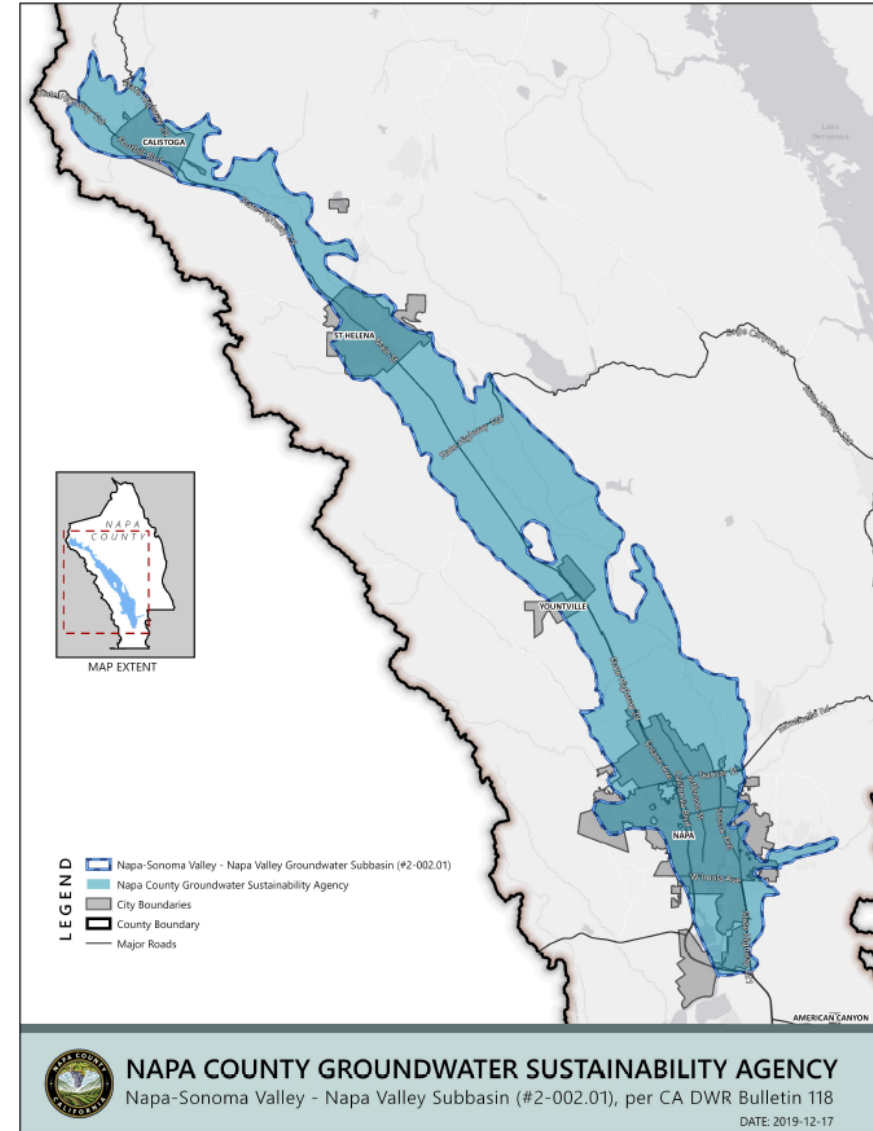
- What is Basin Prioritization?
 - Classification based on factors identified in statute (i.e., population, number of water wells, etc.)
- What do Rankings Mean?
 - Indicator of the overall importance of groundwater
- Napa Valley Subbasin
 - High Priority



Groundwater Sustainability Agencies (GSAs)



- A GSA is one or more local agencies that must develop, implement and enforce the GSP to meet the basin sustainability goal.
- A local agency is any local public agency that has water supply, water management, or land use responsibilities within a groundwater basin.



Current Status of SGMA Implementation



1 ✓

Form GSA

Completed on
December 17, 2019

2

Develop and
Submit GSP

Required by
January 31, 2022

3

Achieve/Maintain
Sustainability

Required 20 Years
after GSP Adoption

Napa Valley Subbasin Groundwater Sustainability Plan





Sustainable Yield and Related Terms

Sustainability Goal

*"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**."*

- Water Code Section 10721(u))

Sustainable Yield

*"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 without causing an **undesirable result**."*

- Water Code Section 10721(w))



Avoiding Undesirable Results for Six Sustainability Indicators



Undesirable Result

"One or more of the following effects caused by groundwater conditions occurring throughout the basin:" - Water Code Section 10721(x))

Significant and Unreasonable ...

Chronic Lowering
of GW Levels



Reduction of GW
Storage



Seawater
Intrusion



Water Quality
Degradation



Land
Subsidence



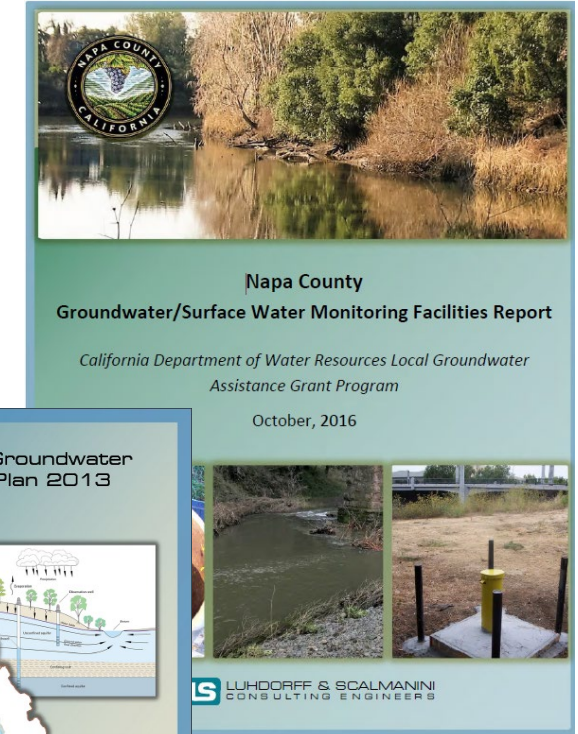
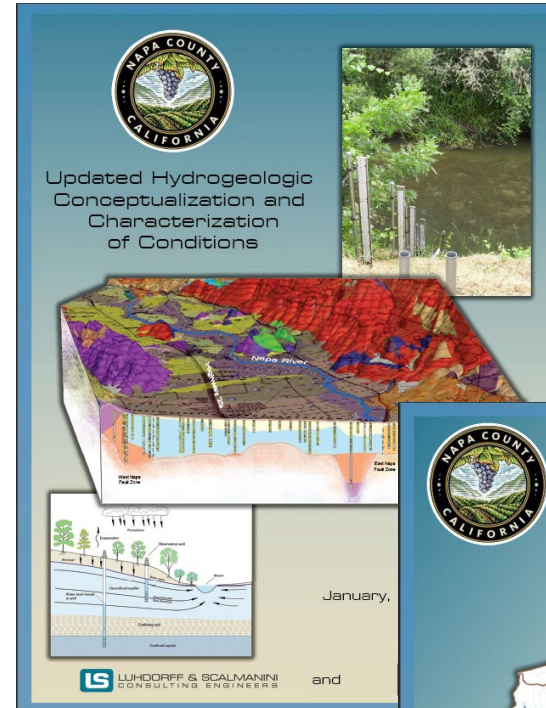
Depletion of
Surface Water



GSP Section Preparation



- “Plain language” with “sufficient detail” for DWR review
- Supported by Technical Memorandums and other appendices
- Draft GSP Sections Provide Periodic Public Review in Advance of Full Draft GSP



Looking Ahead: Draft GSP in 2021

- Winter 2020 - Spring 2021:
Defining sustainability criteria
(including undesirable results)
- Winter 2020 - Fall 2021:
Anticipate completion of model
calibration and running project-
related and future conditions
scenarios
- Spring 2021 – Fall 2021:
Develop concepts for projects
and management actions
- Fall 2021: Full Draft GSP

Napa Valley Subbasin GSP Schedule						
■ = Planned Deliverable Date,						
GSP Section	Year 1					
	2020					
	1st Qtr		2nd Qtr			
Sections 1 and 2 Background, GSA structure and authorities, Beneficial uses and users of GW, Public Participation						
Section 3 Land Use and Water Resource Management, Water Resource Monitoring and Management Programs, GSA Decision-Making Process	M	GSA Workshop				
Sections 4, 5, and 6 Geologic setting, Hydrogeologic Conceptual Model Description of Monitoring Network and Programs and their Objectives/Protocols. Current and Historical Groundwater and Surface Water Conditions. Description of Seawater Intrusion Conditions, Land Subsidence, Interconnected Surface Water, Groundwater Dependent Ecosystems, Areas of Potential Artificial Recharge, and Identifying Data Gaps	M	GSA Workshop				
Section 7 Document Land Use and Population Trends, Water Supplies and Water Use by Sector, Napa Valley Subbasin Total Water Use	M	GSA Workshop				
Section 8 Napa Valley Subbasin Water Budget Framework and results, includes Projected 50-Year Hydrology description of Integrated Hydrologic Model, Change in Groundwater Storage Analysis, Sensitivity Analysis, and Sustainable Yield Analysis						
Section 9 GSA Sustainability Goals, Sustainability Indicators and Undesirable Results, Representative Monitoring Sites, Minimum Thresholds, Measurable Objectives. Description of Northeast Napa Management Area and its Monitoring and Sustainability Criteria.						
Section 10 Groundwater Data Management, including how the GSA will acquire needed information. Data Management Overview, including standards for reporting, mapping, hydrograph construction, and modelling standards						
Section 11 Description of GSA Goals, Policies, and Ordinances, Education and Collaboration with other local Agencies, Projects and Management Actions and Cost Feasibility, Ongoing Evaluation of Groundwater Management Efforts, and Description of Best Management Practices						
Section 12 Summary of GSP Findings, Recommendations for monitoring network, coordination efforts, water budget, and refining datasets. Set formatting for Annual Reporting. Description of how GSA will provide periodic evaluations of GSP Implementation						
Complete GSP Public Draft & Review						
Final GSP						
GSA Meeting to Consider GSP Adoption						
Upload GSP, Monitoring Network Information, Data, and Reference Documents to DWR SGMA Portal						

Note: ■ = Planned Deliverable Date, "M" = Materials Prepared for Public Meeting

Blue cells indicate length of review and comment period

Sections 1 and 2

Background, GSA structure and authorities, Beneficial uses and users of GW, Public Participation

Section 3

Land Use and Water Resource Management, Water Resource Monitoring and Management Programs, GSA Decision-Making Process

Sections 4, 5, and 6

Geologic setting, Hydrogeologic Conceptual Model

Description of Monitoring Network and Programs and their Objectives/Protocols.

Current and Historical Groundwater and Surface Water Conditions.

Description of Seawater Intrusion Conditions, Land Subsidence, Interconnected Surface Water, Groundwater Dependent Ecosystems, Areas of Potential Artificial Recharge, and Identifying Data Gaps

Section 7

Document Land Use and Population Trends, Water Supplies and Water Use by Sector, Napa Valley Subbasin Total Water Use

Section 8

Napa Valley Subbasin Water Budget Framework and results, includes Projected 50-Year Hydrology

description of Integrated Hydrologic Model, Change in Groundwater Storage Analysis, Sensitivity Analysis, and Sustainable Yield Analysis

Section 9

GSA Sustainability Goals, Sustainability Indicators and Undesirable Results, Representative Monitoring Sites, Minimum Thresholds, Measurable Objectives.

Description of Northeast Napa Management Area and its Monitoring and Sustainability Criteria.

Section 10

Groundwater Data Management, including how the GSA will acquire needed information. Data Management Overview, including standards for reporting, mapping, hydrograph construction, and modelling standards

Section 11

Description of GSA Goals, Policies, and Ordinances, Education and Collaboration with other local Agencies, Projects and Management Actions and Cost Feasibility, Ongoing Evaluation of Groundwater Management Efforts, and Description of Best Management Practices

Section 12

Summary of GSP Findings, Recommendations for monitoring network, coordination efforts, water budget, and refining datasets.

Set formatting for Annual Reporting.

Description of how GSA will provide periodic evaluations of GSP Implementation



Thank You

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