

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

Overview of GSP Activities

Presentation to Napa County
Watershed Information & Conservation Council

Vicki Kretsinger Grabert

October 22, 2020



**Luhdorff &
Scalmanini**
Consulting Engineers





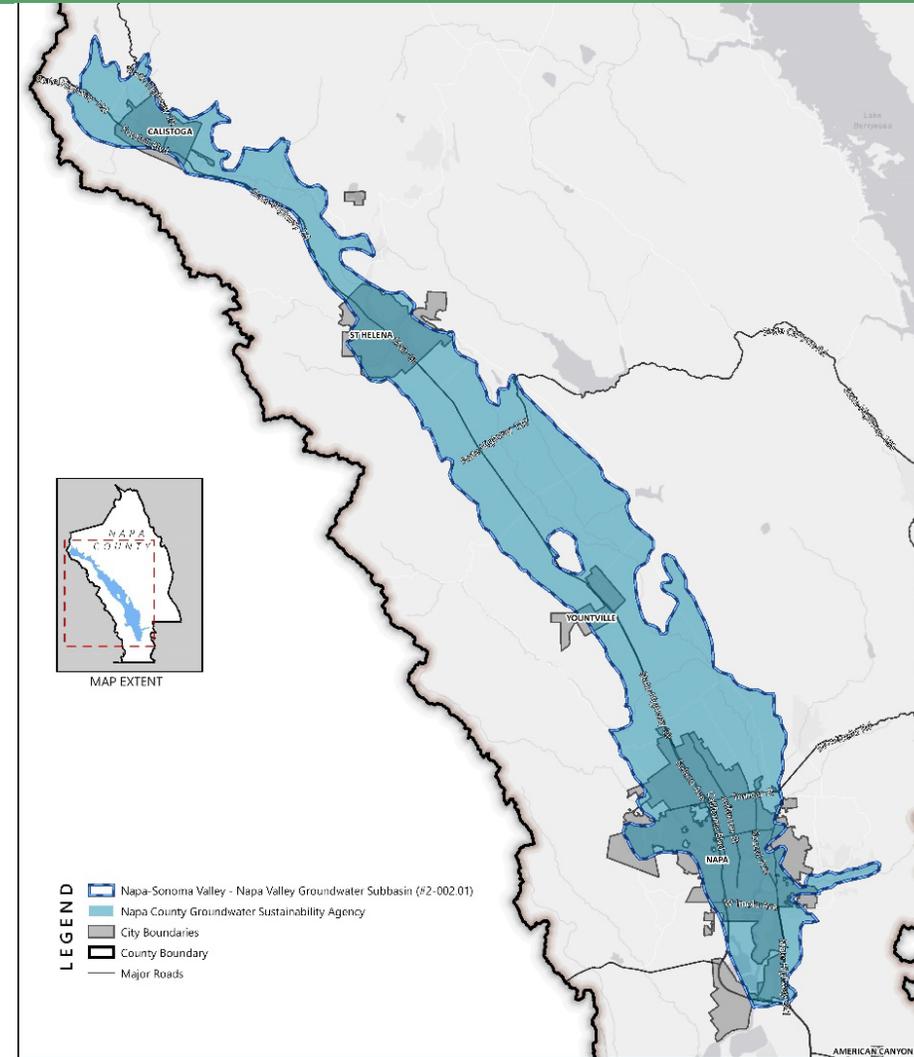
Napa Valley Subbasin GSP Activities: Overview

1. Napa County GSA and GSP Advisory Committee
2. Stakeholder Communication and Engagement Plan
3. GSP Development Process
4. Hydrogeologic Conceptual Model and Integrated Hydrologic Model
5. Monitoring Network and Program: Addressing Data Gaps
6. Looking Ahead

Napa Governance and Advisory Committee



- Napa County GSA (Resolution; December 17, 2019)
 - One GSA for Napa Valley Subbasin
- Groundwater Sustainability Plan Advisory Committee
 - 25 Members appointed by GSA
 - Kick-off meeting July 9, 2020
- Facilitation by CONCUR
 - GSPAC interviews to understand issues



GSP Outreach



- Napa County Conducted an Online Groundwater Stakeholder Survey
- Stakeholder Communications and Engagement Plan Development
 - Outline: August 13, 2020
 - Draft CEP: August 31, 2020
 - Revised Draft CEP: September 30, 2020
 - Final Draft CEP: November 2020

NAPA COUNTY
GROUNDWATER SUSTAINABILITY AGENCY
STAKEHOLDER COMMUNICATION AND
ENGAGEMENT PLAN

DRAFT V2 September 30, 2020

Prepared for the
Napa County Groundwater Sustainability Agency
1195 Third Street, Napa CA 94559

Under Napa County PSA Number PSA200362C
DWR Agreement #4600013565, Category (b)–Stakeholder Engagement/Outreach

Prepared by CONCUR, Inc.
1832 Second Street, Suite N
Berkeley, CA 94710
www.concurinc.com

Napa Valley Subbasin GSP Roadmap



July 2020-August 2021 (Monthly GSPAC Meetings)

- Receive Input from GSPAC on *Draft Sections*⁺⁺
- Periodic Guest Speakers (examples)
 - Calif. Dept. Fish & Wildlife (Oct. 2020)
 - DWR: Climate (Nov. 2020)

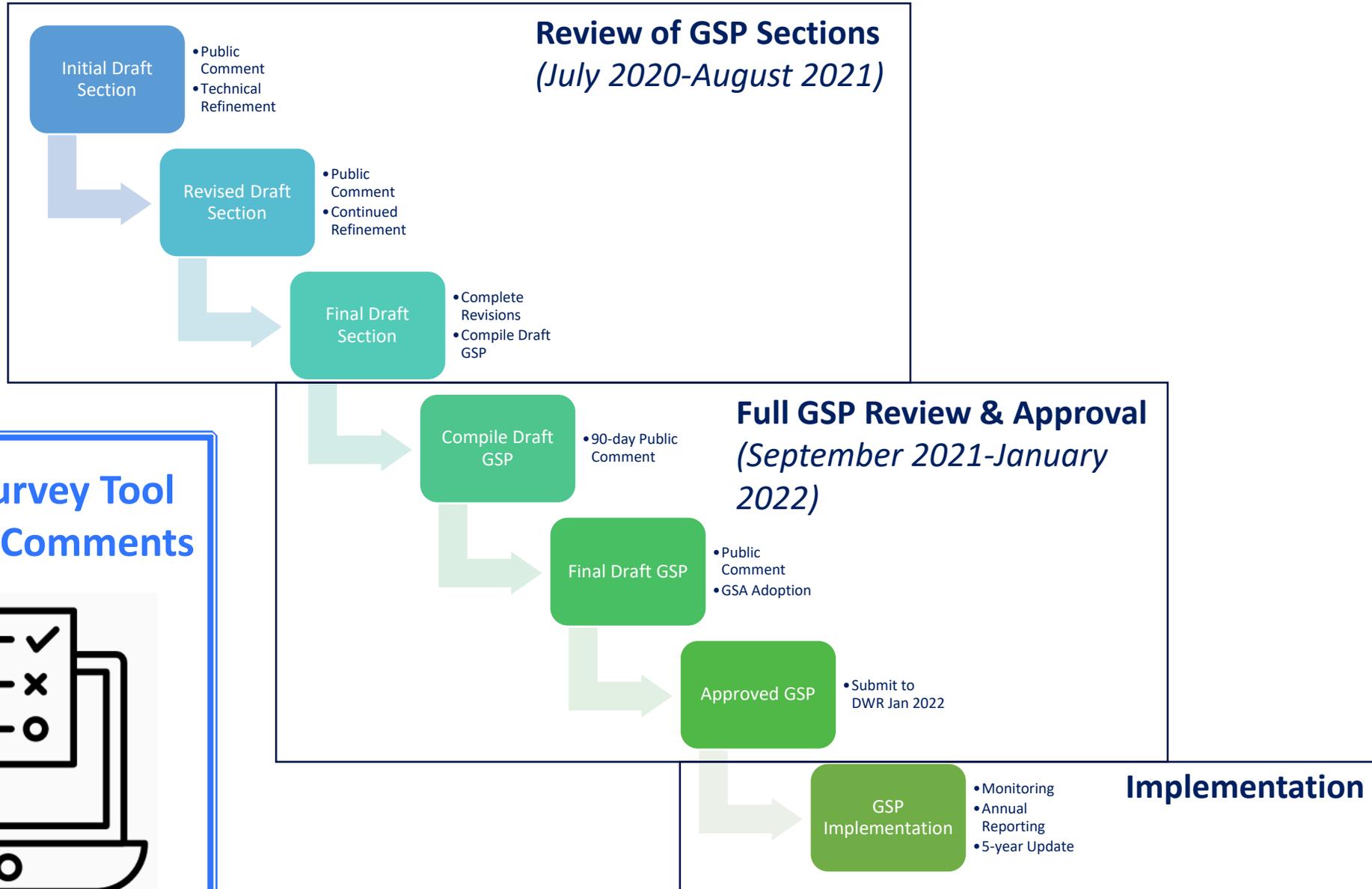
September 2021- January 2022

- Full Draft GSP for GSPAC Review
- Final GSP for GSA Approval
- Submit to DWR



Each Draft Section includes: TOC, Overview, Section Objectives, Body of Section, References, Tables, Figures, and Corresponding Appendices. Accompanied by DWR GSP Regulations Table (Elements Guide) with Section Cross References.

GSPAC and Public Review Process



Online Survey Tool for Public Comments

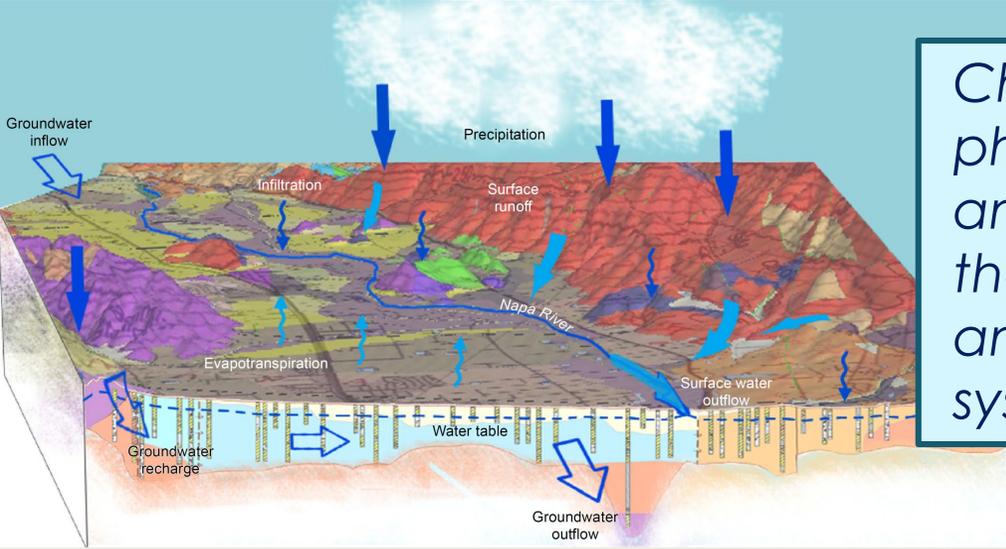
An icon of a laptop computer. On the screen, there is a checklist with three items: the first has a checkmark, the second has an 'x', and the third has an empty circle.

GSP Table of Contents



Draft GSP Sections		To GSPAC (as of 10/8/20)	Corresponding GSP Regulations
1	Introduction	✓	§351 / §353.6 / §354.2 / §354.4 / §354.6 / §354.8
2	Plan Area	✓	§354.8
3	Water Resource and Land Use Monitoring and Management Programs	✓	§353.8 / §354.8 / §354.10
4	Basin Setting (Hydrogeologic Conceptual Model)	✓	§354.12 / §354.14
5	Monitoring Network and Program	✓	§354.32 / §354.34 / §354.38
6	Groundwater and Surface Water Conditions	Draft TOC	§354.16
7	Historical, Current, and Projected Water Supplies		§354.16
8	Water Budget		§354.18
9	Napa Valley Subbasin Sustainability Goal		§354.20 / §354.22 / §354.24 / §354.26 / §354.28 / §354.30 / §354.36 / §354.38
10	Monitoring Data Management and Reporting		§352.2 / §352.4 / §352.6 / §353.4 / §354.40 / §356.2 / §356.4
11	Sustainable Groundwater Management: Projects and Management Actions		§354.42 / §354.44
12	Plan Implementation		§353.2 / §355.4 / §356.4

Hydrogeologic Conceptual Model

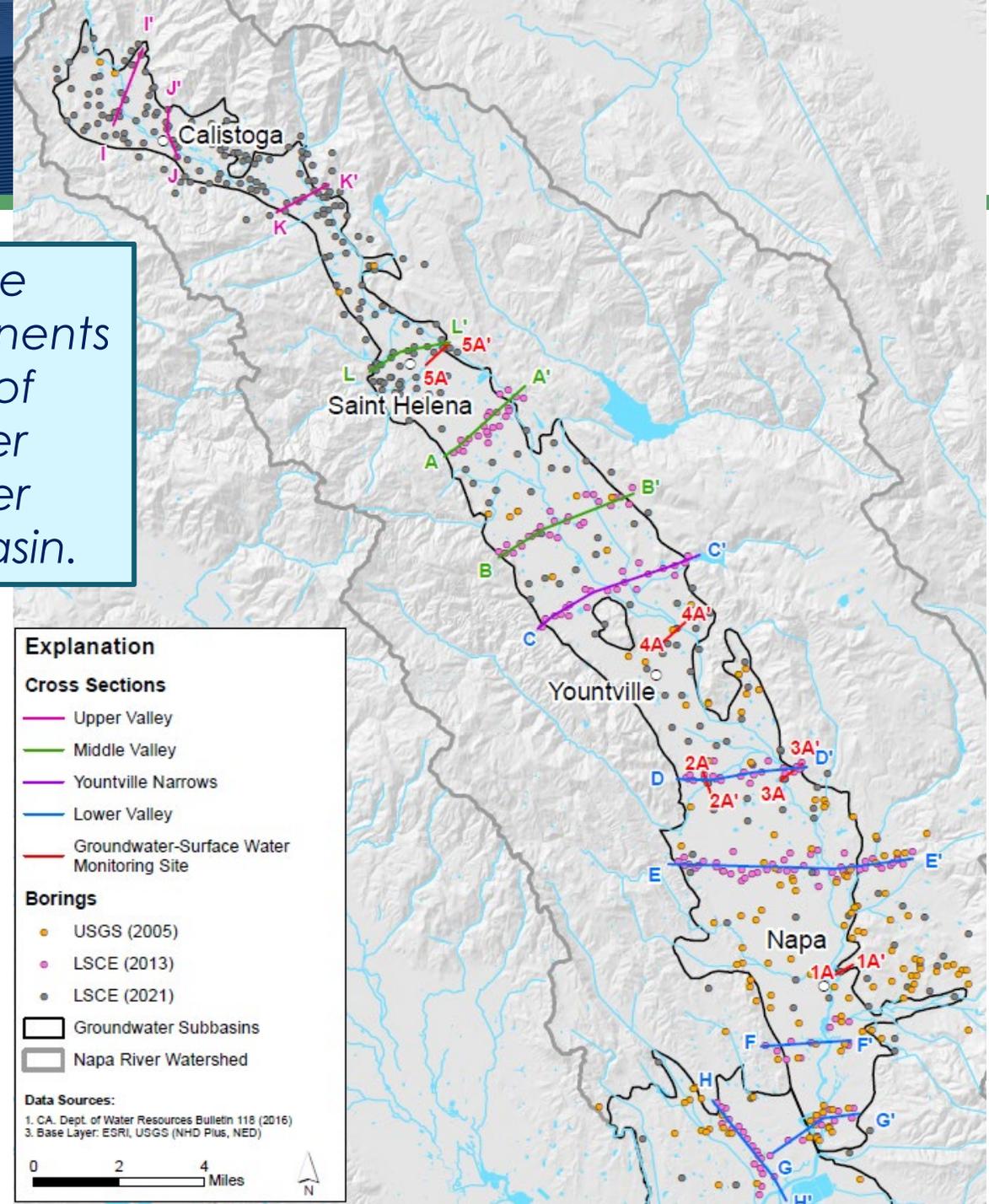


Characterizes the physical components and interaction of the surface water and groundwater systems in the basin.

Physical Description (“Model”) of System

- 12 Geologic Cross Sections (distributed north to south in the Subbasin)
- 5 Cross Sections near the Napa River System

Provides the physical basis for and informs the development of the mathematical (numerical/software) Integrated Hydrologic Flow Model



Napa Valley Integrated Hydrologic Flow Model (NV-IHM) Development

WICC Meeting July 2019: Described SGMA Model Objectives:

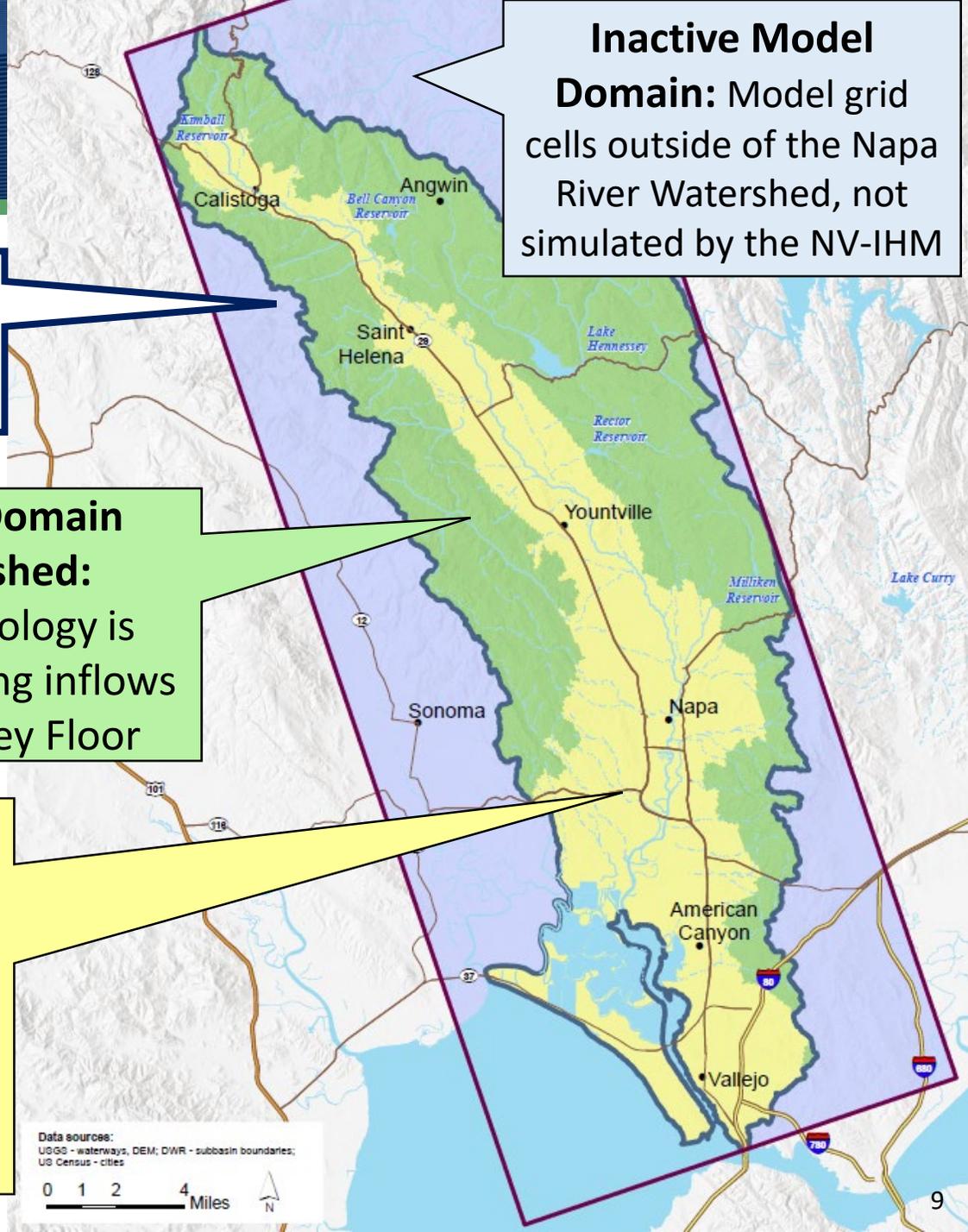
- Develop water budgets: historical, current and projected (50-Year)
- Simulate response to climate change (including drought conditions and sea level rise) and future land use
- Advance understanding and management of interconnected groundwater and surface water
- Evaluate projects and management actions to maintain sustainability

**Napa River
Watershed**

**Active Model Domain
Upper Watershed:**
Watershed hydrology is simulated, including inflows to the Napa Valley Floor

**Active Model Domain
Napa Valley Floor:**
Hydrology simulated by MODFLOW One-Water platform, includes the Napa Valley Subbasin and Napa-Sonoma Lowlands Subbasin

**Inactive Model
Domain:** Model grid cells outside of the Napa River Watershed, not simulated by the NV-IHM



Napa Valley Subbasin: 9 GSP Monitoring Networks



GWL

Groundwater Levels

GWQ

Groundwater Quality

GST

Groundwater Storage

SEA

Seawater Intrusion

SUB

Land Subsidence

SW/
GW

Interconnected Surface Water and
Groundwater

SWQ

Surface Water Quality

SSD

Stream Stage & Stream Discharge

GDE

Groundwater Dependent
Ecosystems

**Monitoring Networks: Identifying
and Addressing Data Gaps**

*Request to GSPAC for Input
through Spring 2021*

Napa County Groundwater level Monitoring (Example Network)

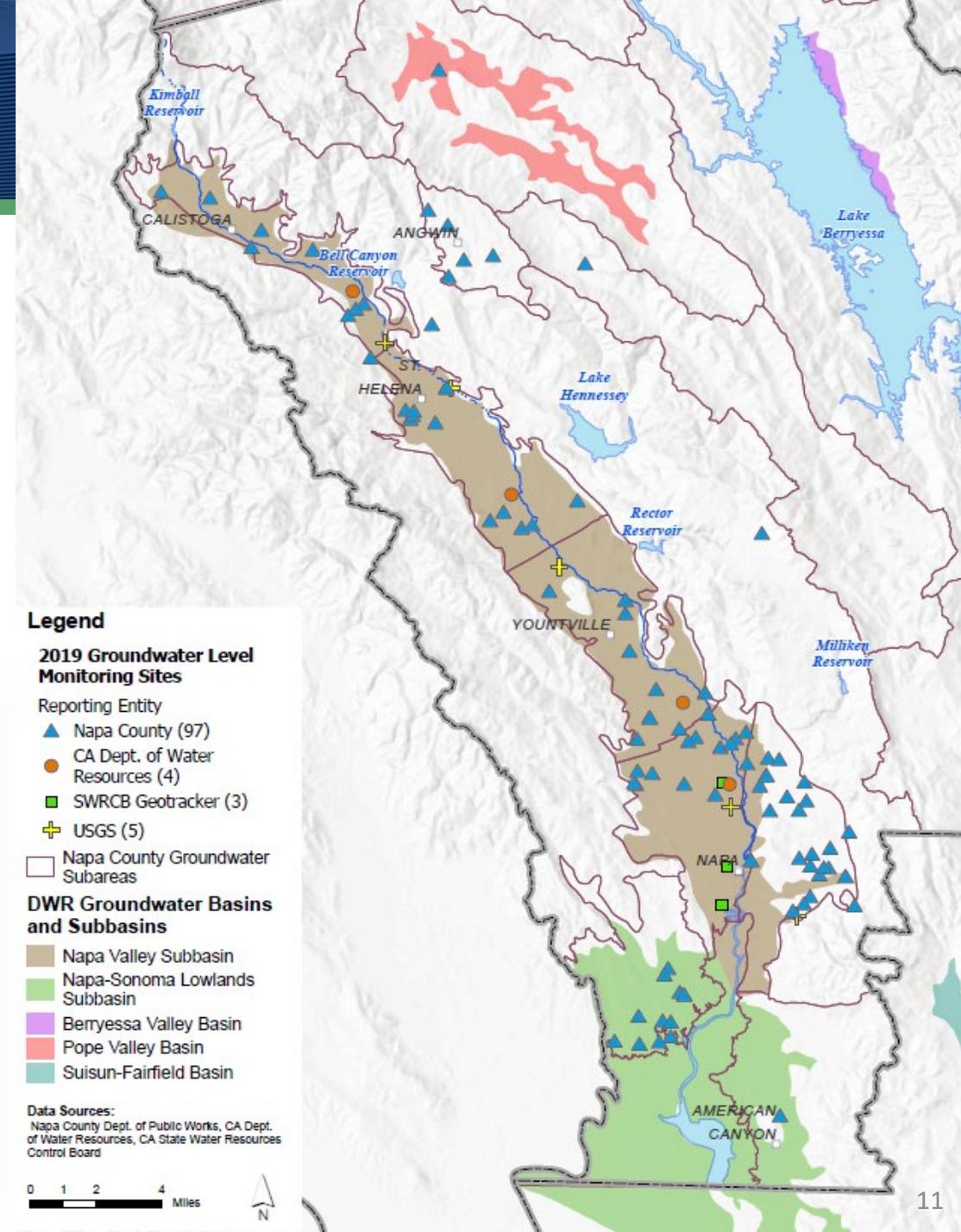
 Napa Co., 97 (including 10 SW/GW)

 DWR, 4

 SWRCB GeoTracker, 3

 USGS, 5

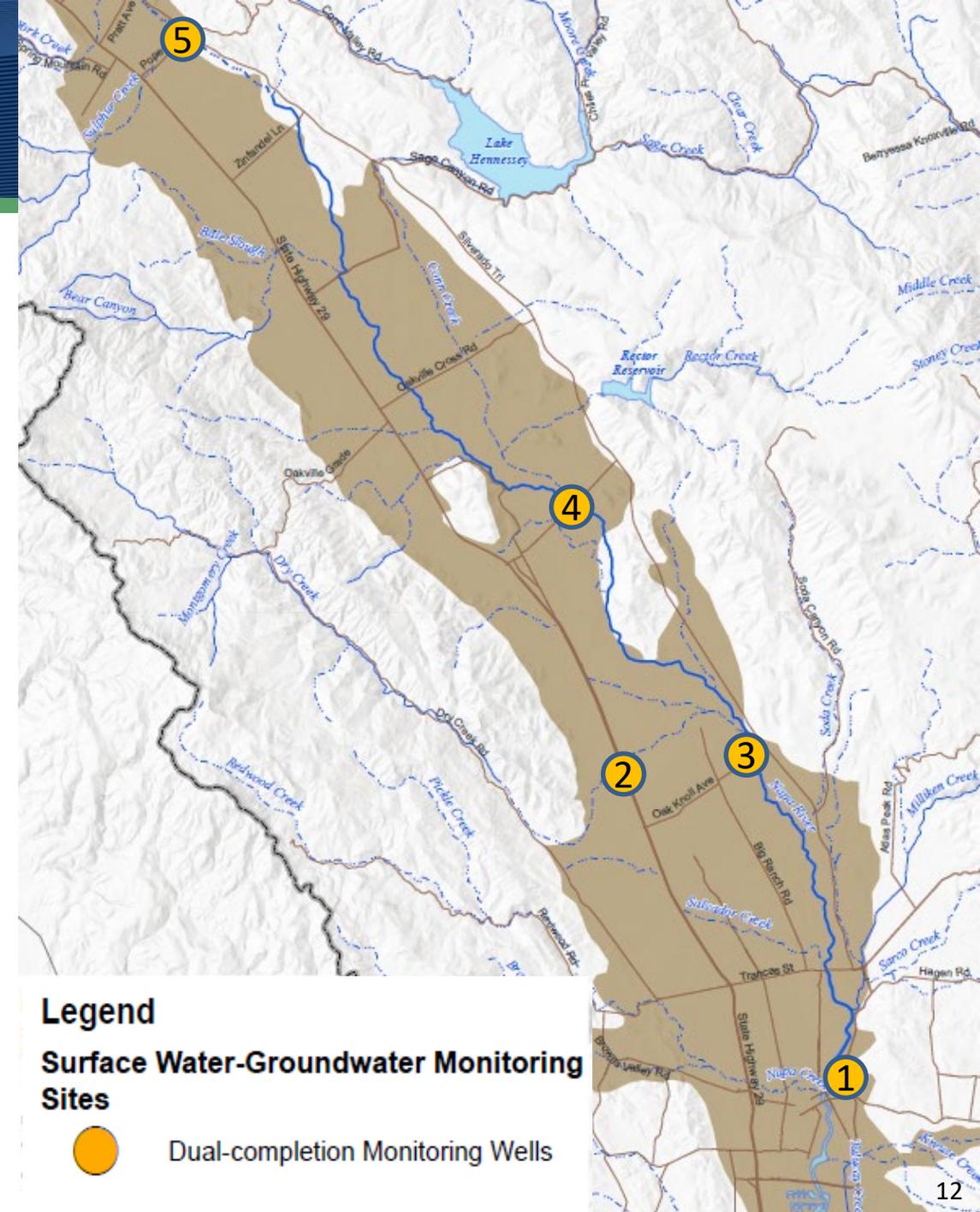
Total = 109



Surface Water/Groundwater Interaction

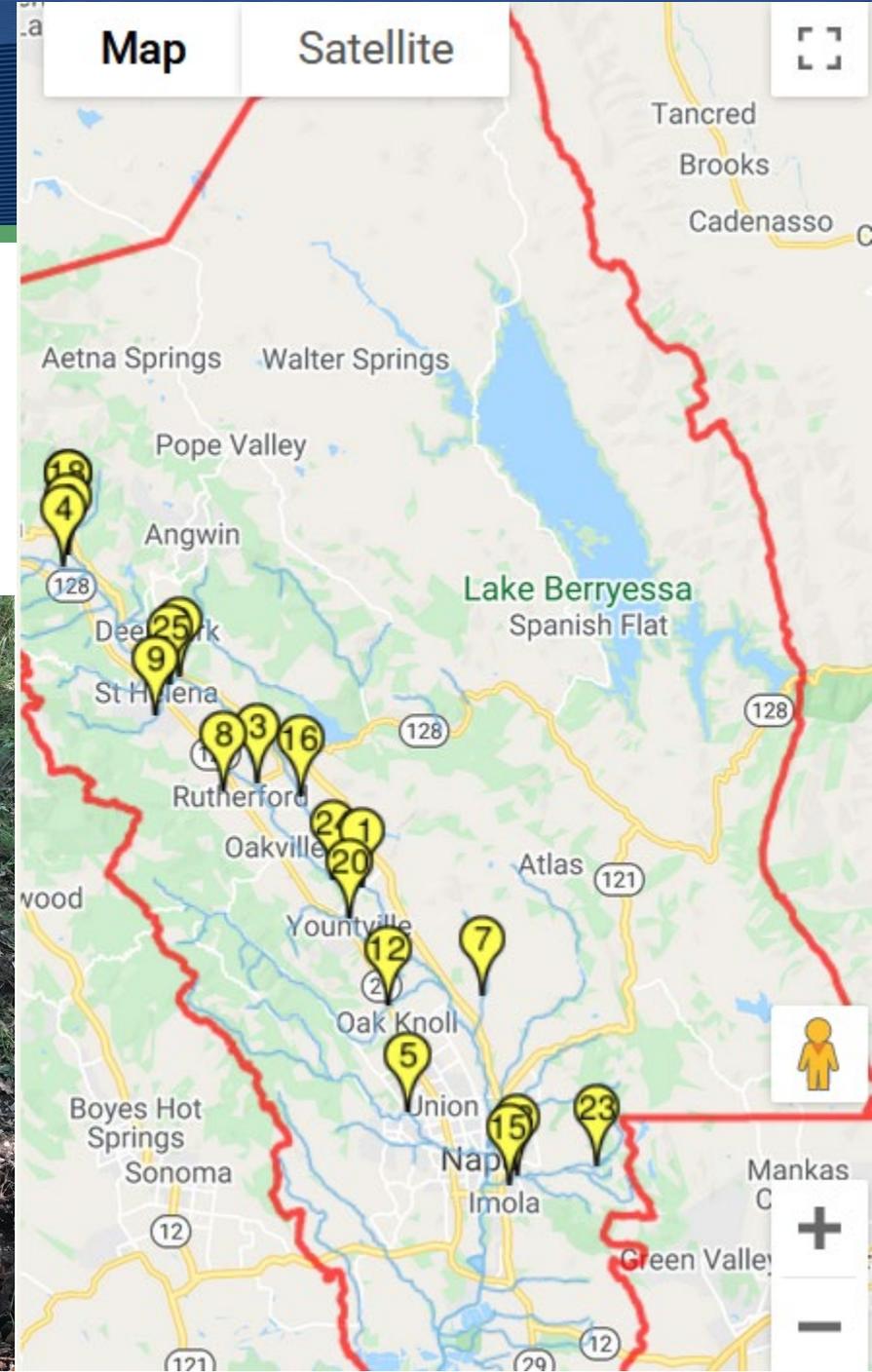
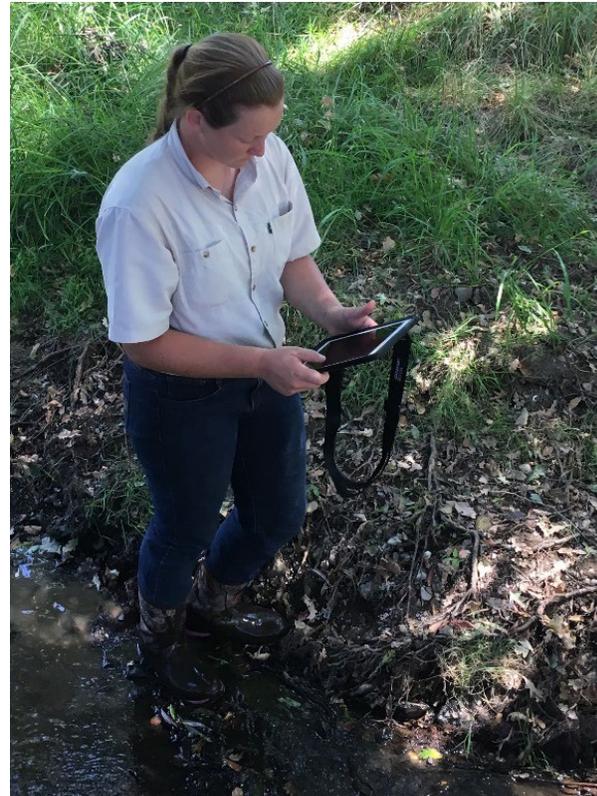
Dedicated Monitoring Facilities at 5 Sites

- DWR grant support (2014)
- Paired Shallow Monitoring Wells (MWs) each site
 - Levels & quality
- Stream Gauge each site
 - Streamflow & quality
- > 5 years of data



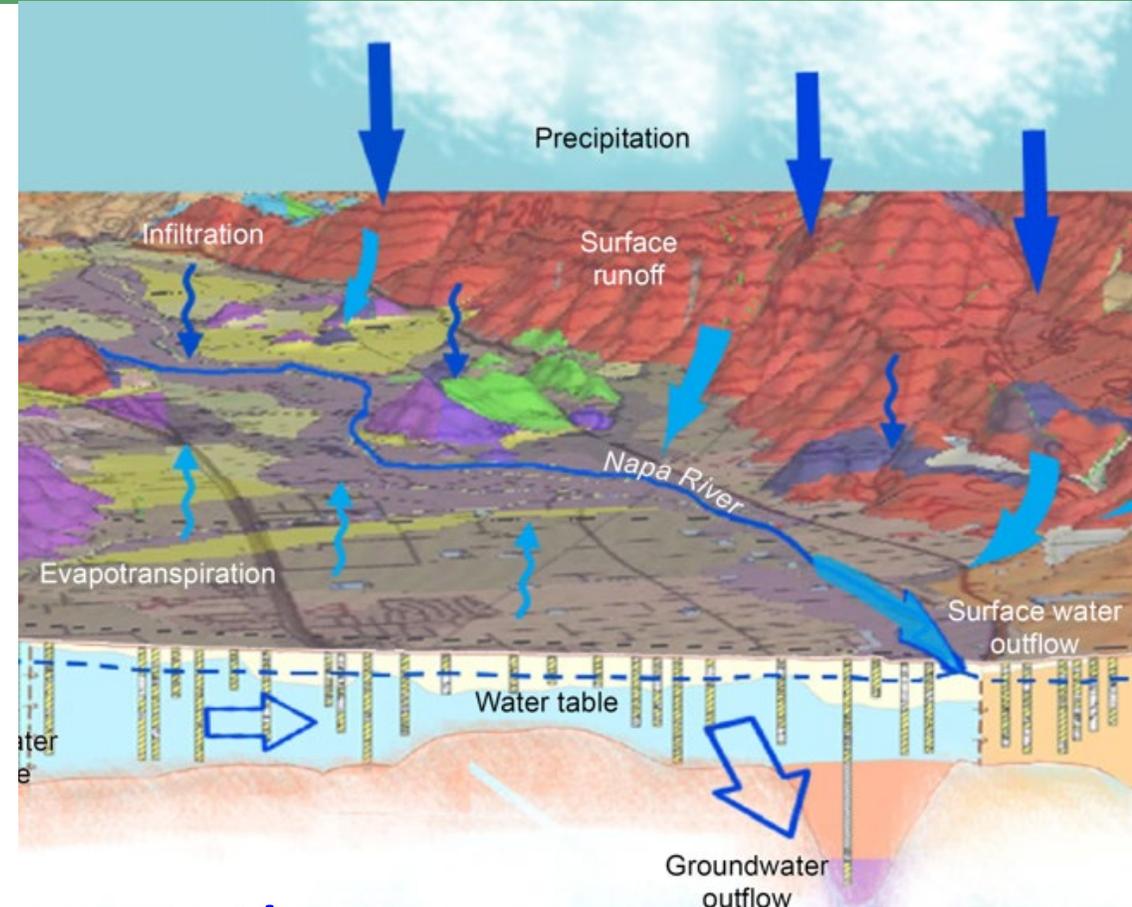
Expanded Streamflow Observations

- Napa County RCD Stream Watch Program; Citizen Science Tool
- Staff and public record streamflow observations have increased to 26 sites (941+ observations to date)
- Inform GDE mapping
- Complements data collection at permanent stream gauges



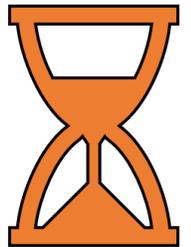
GSP Development: Some Next Steps

- Coordinate with Countywide Drought Contingency Plan
- Continue drafting GSP Sections; complete model
- Receive input related to monitoring network design and data gaps
- Evaluate strategic recharge and water conservation opportunities
- Increase outreach



How can we utilize the natural/contemporary landscape to retain more water entering the basin and slow the transit time for water leaving the basin?

GSP Development Progress and Timeline





Thank You

Vicki Kretsinger Grabert
vkretsinger@lsce.com



Napa County
Jeff Sharp, *Principal Planner*
Planning, Building, and
Environmental Services Department
1195 Third Street
Suite 210
Napa, CA 94559
jeff.sharp@countyofnapa.org

