

## Our Groundwater Resources in Napa County Monitoring for Sustainability



Workshop Presentation March 2014

A Tradition of Stewardship A Commitment to Service

www.countyofnapa.org/bos/grac



### **Overview**

- Background
- What We Know
- Importance of Groundwater (GW)
- What We're Trying to Learn
- Voluntary GW Monitoring Program
- Groundwater Resources Advisory
   Committee (GRAC)
- Next Steps
- Education & Outreach
- Sustainability







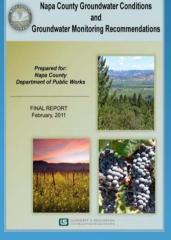
## Napa County Groundwater Workshop 2011

- Comprehensive Groundwater Resources Study to meet General Plan goals/actions (2009)
- BOS GW Workshop February 14, 2011
  - Napa County GW Conditions & GW Monitoring Recommendations (LSCE Feb. 2011)
  - Assessment of the Feasibility of a Collaborative GW Data Gathering Effort in Napa County (CCP/CSUS Aug. 2010)
- Groundwater Resources Advisory Committee
  - Both studies identified need for collaborative data gathering and community advisory committee to guide effort
  - GRA Committee appointed by BOS on Sept. 20, 2011





Groundwater Workshop



## Working to Improve Our Understanding of Groundwater

- Groundwater Monitoring Plan (Jan 2013) and CASGEM Plan (Sept 2011)
  - Addressing Long-term Monitoring Needs
- Updated Hydrogeologic Conceptualization & Characterization of Conditions (Jan 2013)
   Report Addressing GW Data Gaps
- Groundwater Data Management and Disclosure Guidance Document (Jan 2013)



#### Groundwater: What we know

Napa County and other public agencies have been monitoring groundwater resources since mid-1900's

#### **Groundwater Levels**

 The Napa Valley Floor shows stable long-term trends and shallow depth to water

#### Milliken, Sarco & Tulucay (MST) creek watersheds

- Northern MST shows historical declines but it has stabilized in last 30 years
- Central MST shows long-term declines, increasing since 1990 with recent stabilizing
- Southern MST is historically stable with shallow depth to water, some decline in mid-1990's to mid-2000's with recent stabilizing



#### Groundwater: What we know

#### **Groundwater Quality**

- Quality generally good on Napa Valley Floor
- Higher levels of salt and other constituents in northern Napa Valley Floor/Calistoga
- Salts, iron and other constituents are higher in southern Napa Valley Floor

#### **Groundwater Recharge**



- Most recharge occurs in the Napa River watershed
- Almost 43% of the watershed has geology/soils with the greatest potential for recharge



## Importance of Groundwater in Napa County



#### Vital source of water supply

- Relied upon by: residents, businesses, agriculture, fish, wildlife, and the natural environments
- Used for drinking, irrigation, the environment, others

These and other water demands make it essential that we:

- Preserve GW quality and availability for the long term
- Be able to meet water needs during drought conditions
- Prevent potential negative environmental effects due to groundwater use

## What Are We Trying to Learn about Groundwater?



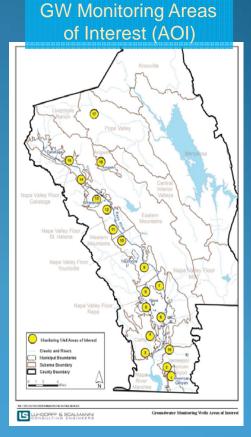
- How does GW move through our aquifer?
- What is the overall status of our aquifers in Napa County?
- What are the groundwater conditions & trends?
- How do groundwater and surface water connect?
- Questions led to development of the Groundwater Monitoring Program



## Voluntary Groundwater Monitoring Program



- Expands voluntary monitoring well network to help answer remaining questions
- Supports County water resources goals
- Addresses identified data needs
- Coordinates data collection with State/Federal agencies
- Incorporates data into a locally maintained system



Napa County Groundwater Monitoring Plan 2013

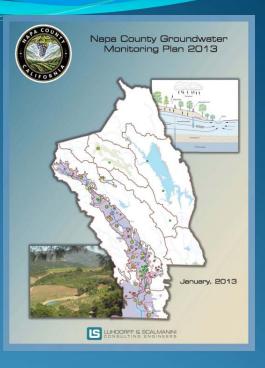
4 GW Basins/2 Sub-Basins(DWR)

**17 GW Subareas Countywide** 

Napa Valley Floor includes 5 Subareas

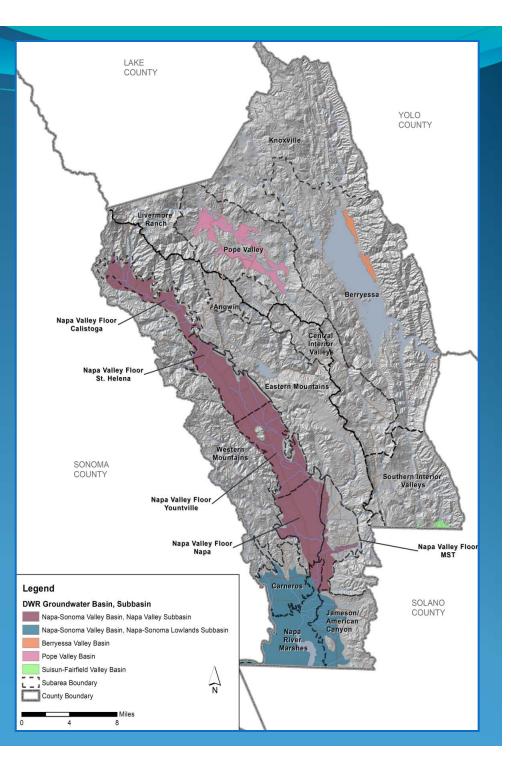
7 GW Level & Quality Priority Subareas

**18 GW Monitoring Areas of Interest (AOI)** 



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#### 17 Groundwater Subareas Countywide

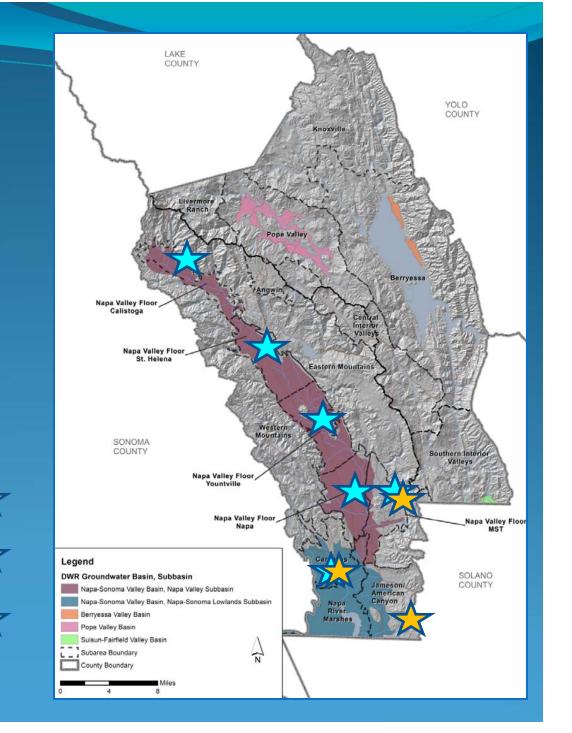


#### 7 GW Priority Subareas

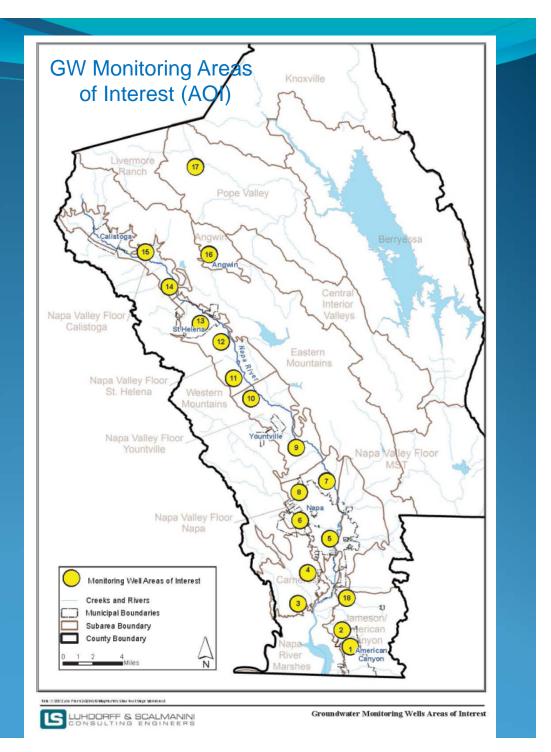
#### GW Levels GW Quality



- Calistoga
- St. Helena
- Yountville
- Napa
- MST
- Carneros
- Jameson/ American Cyn



#### 18 GW Monitoring Areas of Interest

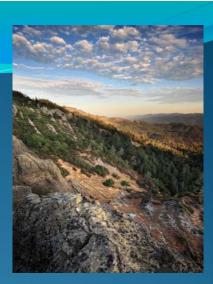


#### Groundwater Resources Advisory Committee (GRAC)

- Advisory Committee to Board of Supervisors created in 2011 - 15 Members
- Diverse community representation
  - Farming/Agriculture Industry
  - Environmental Interest Groups
  - Business/Wine Industry

Napa County Groundwater Resources Advisory Committee

 Purpose is to assist County staff and technical consultants with GW recommendations



## Next Steps....



- Final Report to the Board of Supervisors on GRAC's Conclusions & Recommendations (April 2014)
- Public Outreach & Education through RCD and WICC
- Expanded Groundwater Monitoring Program to insure long-term sustainability (General Plan goal)

## **Education & Outreach**

- Ag Industry, Environmental, others
- GRAC- WICC Board Joint Meetings Hosting Public Meetings/Forums
- Participation in Community Events
  Earthday, River Fest, others
- Public Speaking
  - Organizations, Groups, others...
  - WICC Watershed Symposium







## **Groundwater Sustainability**

- Ongoing monitoring of groundwater conditions to ensure stable long-term supply
- Build partnerships and expand collaborative efforts to improve supply reliability, protect water quality, and sustain habitats
  - Seek funding to further our understanding of surface and groundwater resources conditions and trends



#### **Groundwater Sustainability**

GW Monitoring Program and GRAC Efforts Consistent with Napa County General Plan

# June 2008 Dapa County General Plan

#### Water Resources Goals/Actions

- **Goal CON- 12:** Collect information about status of Surface and Groundwater resources for improved forecasting of supplies and effective management
  - Action Item CON WR- 4: Implement a countywide watershed monitoring program to assess health of County's watersheds
  - Action Item CON WR- 8: Monitor Surface and Groundwater interrelationships using County-owned wells and stream and precipitation gauges, data from private property owners on a voluntary basis, data via conditions of land-use approvals, data from DWR and other agencies/organizations



#### For Additional Information:

**GRAC** Website:

www.countyofnapa.org/bos/grac

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