

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







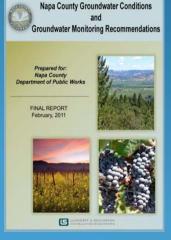
Napa County Groundwater Workshop 2011

- 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

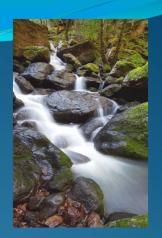
Groundwater Quality

- 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?



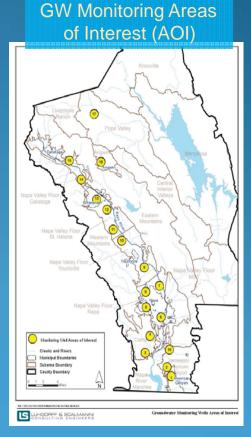
- How does GW move through our aquifer?
- What is the overall status of our aquifers in Napa County?
- What are the groundwater conditions & trends?
- How do groundwater and surface water connect?
- Questions led to development of the Groundwater Monitoring Program



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

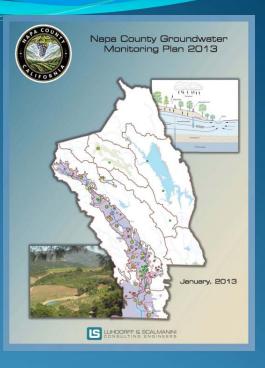
4 GW Basins/2 Sub-Basins(DWR)

17 GW Subareas Countywide

Napa Valley Floor includes 5 Subareas

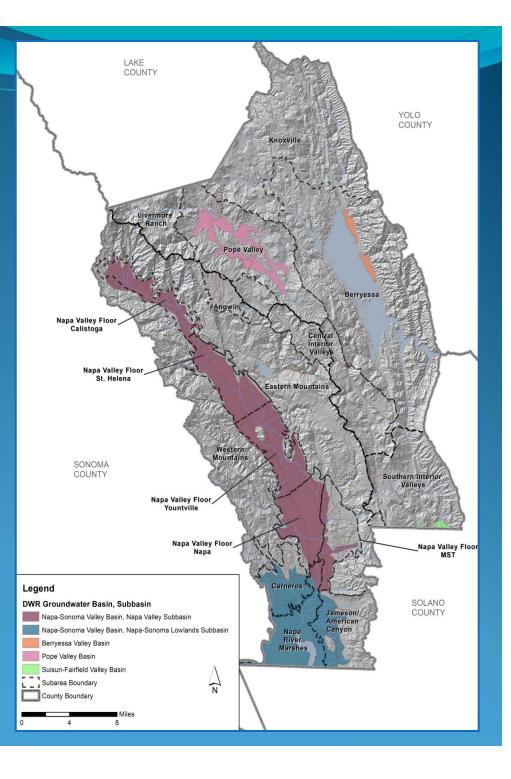
7 GW Level & Quality Priority Subareas

18 GW Monitoring Areas of Interest (AOI)



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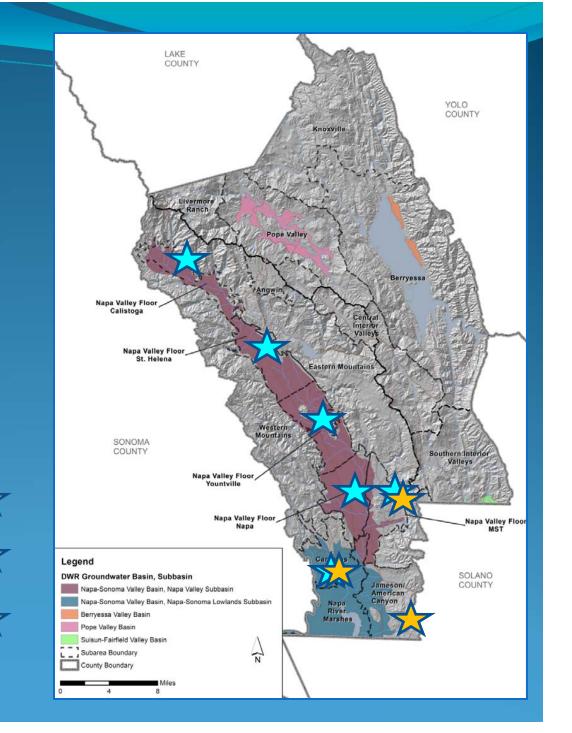


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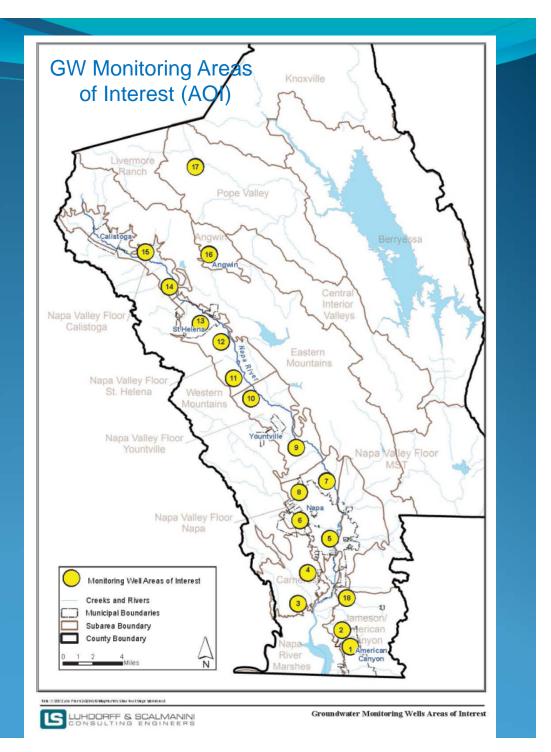
GW Levels GW Quality



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



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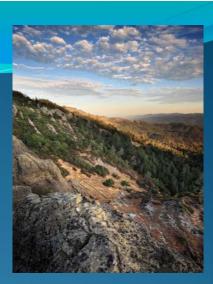


Groundwater Resources Advisory Committee (GRAC)

- 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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