Napa County Groundwater Conditions & Monitoring Recommendations

2011 LSCE Report Recommendations

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Groundwater Conditions & Monitoring Recommendations

2011 LSCE Report

- Performed Reconnaissance Level Evaluation
  - Compiled Readily Available Data
- Evaluated Countywide GW Conditions
- Report Findings:
  - What We Know, What We Don’t Know, and What We Need to Know
- Provided Recommendations Related to GW Monitoring Program
- Other Recommendations.....
Groundwater Basins & Subbasins

- Napa-Sonoma Valley Basin
  - Napa Valley Subbasin
  - Napa-Sonoma Lowlands Subbasin
- Berryessa Valley Basin
- Pope Valley Basin
- Suisun-Fairfield Valley Basin
Key Findings of LSCE Study:
Groundwater Level Conditions

Napa Valley Floor (Except for MST Subarea)

- Generally Stable Long Term Trends
  - St. Helena, Yountville, and Napa areas
- Shallow Depth to Groundwater
  - 10 to 30 feet Below Ground Surface

MST Area

- Pumping depressions common and worsening in some areas
- Importance of correlating levels with portion of aquifer system

Elsewhere – generally insufficient data
Key Findings of LSCE Study: Groundwater Quality Conditions

- Generally Good GW Quality
- Selected Areas of Elevated Constituents
- Calistoga Area of the Napa Valley Floor
  - Geothermal Influences
- Southern Napa County
  - Elevated TDS and Chloride
- Napa Valley Floor
  - Scattered Nitrate
Key Findings of LSCE Study:

Historic Record & Data Quality

- Long Historic Record in many areas of the Valley
  - Historical GW Monitoring Sites (pre-2005) Exceeds Current Sites (2005 to Present) by 50%
  - GW Quality Data More Spatially Distributed than Level Data
  - GW Level Data Primarily Collected from NVF Subareas

- Data Quality issues related to:
  - Well log/construction data
  - Pumping influence on gw level data
  - Anomalous gw quality data
  - Changes in wellhead reference elevations
  - Well location coordinates
Key Findings of LSCE Study: Recommendations

- **Countywide GW Level Network Priorities**
  - High priority subareas and monitoring needs
    - NVF-Calistoga/MST/Napa/St. Helena/Yountville, Carneros, and Pope Valley
    - Improved spatial distribution; subsurface geologic conditions for aquifer ID; improve understanding of SW/GW relationships

- **Countywide GW Quality Network Priorities**
  - High priority subareas and monitoring needs
    - NVF-MST, Carneros, Jameson, Pope Valley
  - Aquifer-specific data
Key Findings of LSCE Study:

Recommendations

• Updated Conceptualization & Characterization of Hydrogeologic Conditions in Napa County
  LSCE Work Underway 2012
  • Updated hydrogeologic conceptualization and characterization for priority areas
  • ID supplemental GW monitoring wells for high priority areas
  • Refine and further characterize areas with greatest recharge potential
Key Findings of LSCE Study:

Recommendations

Update the Plan for On-going Countywide Groundwater Monitoring

- Implement 2011 GW Study Recommendations
- CASGEM Program – Implemented in 2011
- Groundwater Resources Advisory Committee (GRAC)
  - Provides countywide knowledge to help define objectives for GW Monitoring Plan Update
  - Input on high priority subareas and/or issues of concern
  - Assist with public outreach/education and volunteer participation in the ongoing GW monitoring program

- Next Steps......
Discussion & Questions