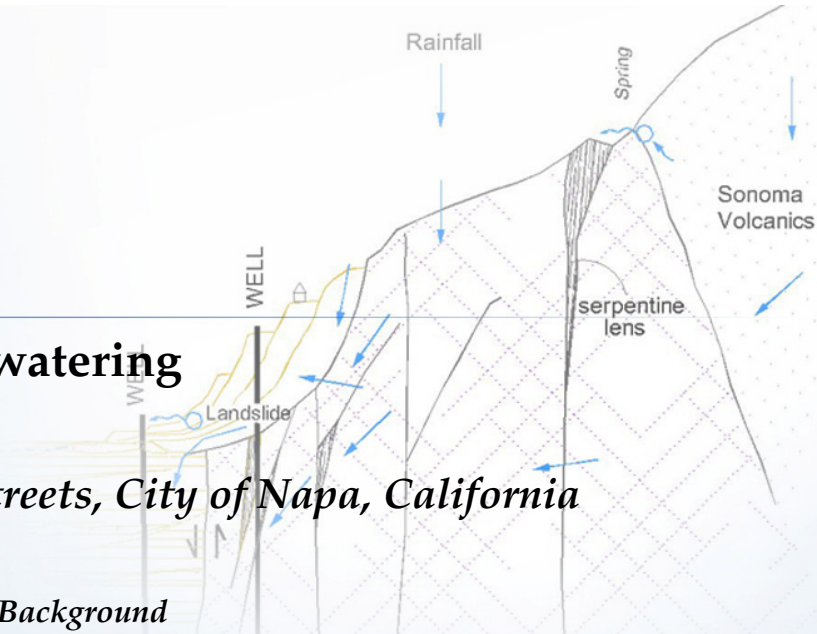


## Aquifer Assessment and Site Dewatering

### *Napa Riverfront, Third and Market Streets, City of Napa, California*



Measuring surface to groundwater depth

### Background

Located in historic downtown Napa on the Napa River, the Napa Riverfront project required excavation 24 to 26 feet below ground surface for construction of a 4-story commercial building with underground parking. During construction, the site needed dewatering related to seepage from the Napa River and local high ground-water conditions. After construction, dewatering was anticipated during high storm flows.

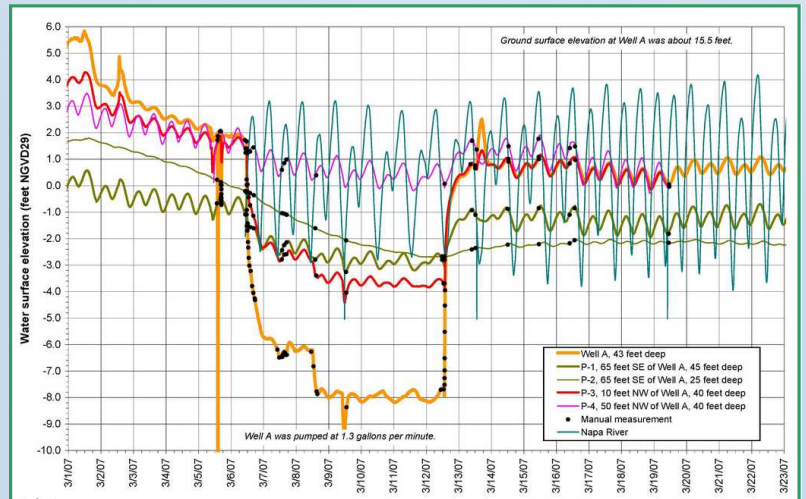
### Project Highlights

Conducted on-site tests, water-level monitoring, and evaluated the ground-water hydrology, which was key in time-sensitive planning and permitting meetings prior to excavation.

Flow modeling conducted for various dewatering schemes was beneficial to optimize drawdown while being sensitive to offsite effects to surrounding buildings, including a historic brick building immediately opposite the site.

Drawing in known offsite contaminants related to a former gasoline station was also a concern.

Our analysis was critical information in the regulatory process to explain subsurface hydrologic conditions and demonstrate the effectiveness of the proposed dewatering system, both during construction and long-term.



Monitoring groundwater elevation



Napa River adjacent to site