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# OVERVIEW OF THE BASIN SETTING PROJECT

## GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT

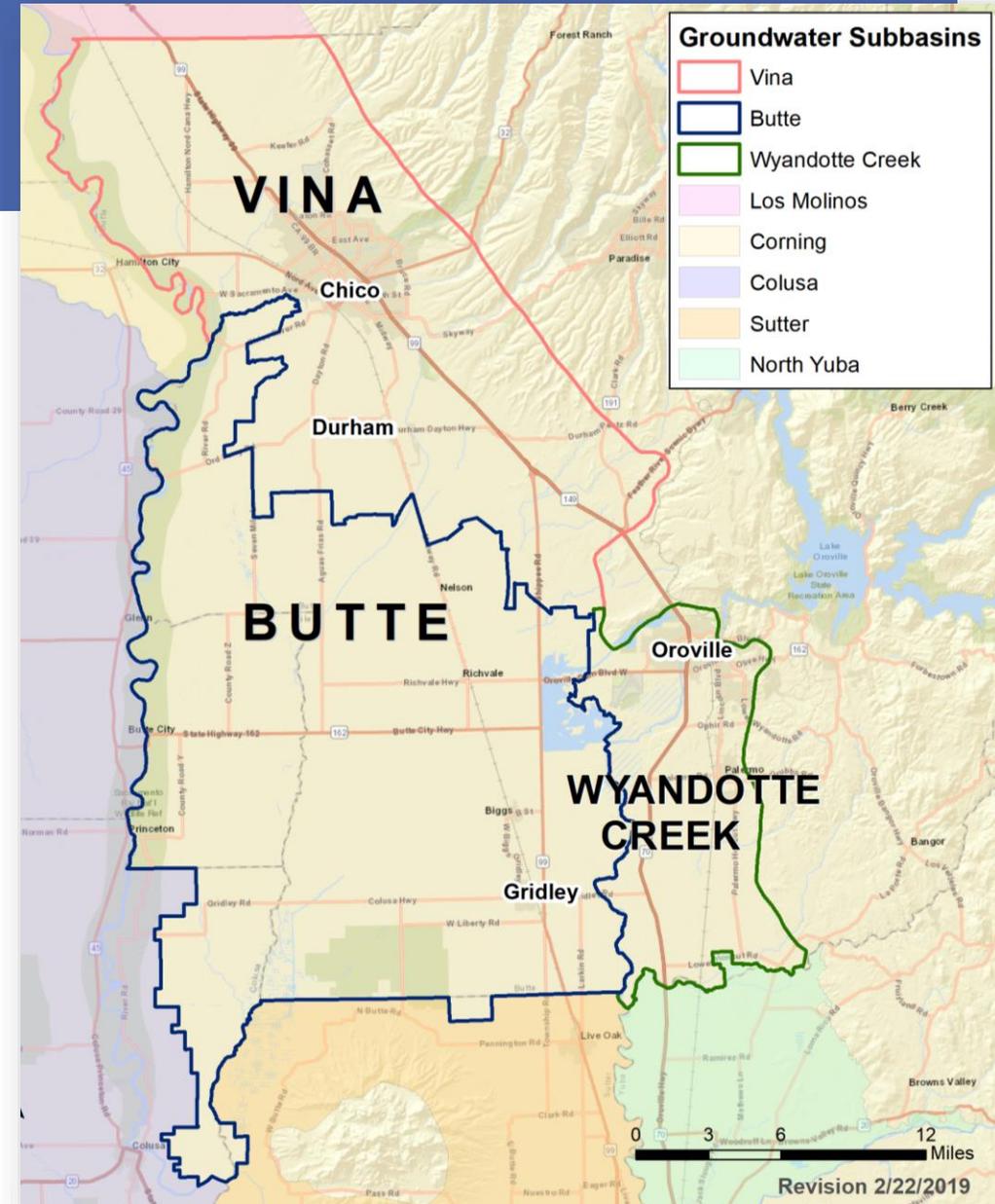
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# SCHEDULE & BUDGET

- Single project for all three subbasins
- Contract with Davids Engineering (subcontractors: GEI and Woodard and Curran)
- Work by Consultant Team and GSA Staff
- Schedule: August 2018-June 2020
- Amended Budget: \$600,543
- Funded by Prop I GSP Grant and in-kind staff time



## LOCAL EXPERT GROUP (LEG)

- Project specific advisory committee
  - Mix of academics, local farmers, GSA managers, and members of Butte County TAC
- Provide feedback and input on project approaches and results
- Have met multiple times since project start

## DATA MANAGEMENT TASKS

- Monitoring Protocols
- Data and Reporting Standards
- Data Management System

## MONITORING NETWORKS

1. Monitoring Network- describe existing network and how it will be used regarding sustainability criteria and monitoring conditions and impacts
2. Representative Monitoring (**NOT** included in Basin Setting Project)

# INTEGRATED HYDROLOGIC MODELING

1. Compare Butte Basin Groundwater Model (BBGM), Sacramento Valley Simulation Model (SVSim), and local information/data
2. Select and refine modeling tool
3. Develop model scenarios and analyze results
  - Historical, Current, and Projected Water Budgets
  - Future conditions (consider climate change, land use changes, population, surface water availability)
  - Potential projects and management actions

# BASIN SETTING

## Subtasks

1. Hydrogeologic Conceptual Model (HCM) (Subbasin description, maps, and 2 geologic cross sections)
2. Current and Historical Groundwater Conditions
  - Groundwater elevation maps, hydrographs, pumping patterns
  - Groundwater Change in Storage
  - Map of water quality issues
  - Land subsidence map
  - Identify interconnected surface water and groundwater, estimate quantity and timing of depletions
  - Identify groundwater dependent ecosystems (GDEs)

## BASIN SETTING CONTINUED

### Subtasks cont'd

#### 3. Water Budget Information for historical, current and projected scenarios

- Compile and report results from integrated hydrologic model
- Includes inflows, outflows, change in storage, sustainable yield (based on sustainable management criteria)

#### 4. Management Areas

- Description and maps of management areas

# CONCLUDING THOUGHTS

- LOTS of work
- Funded by Prop I grant and in-kind staff time
- Analysis will build on & add to large foundation of existing data and studies
- Opportunity to enhance our understanding, monitoring networks, analytical tools
- Results provide foundation of technical information for all three subbasins
  - Supports future development of Representative Monitoring, Sustainable Criteria, Minimum Thresholds, Projects and Actions.