2014 Drought Update

Paul Gosselin, Director
Butte County Water and Resource Conservation
February 11, 2014
2014 Drought Update

Today's Presentation

- Statewide Drought Emergency
- County’s Drought Response
- Butte County 2014 Drought Action Plan
What is a Drought?

A drought is defined as a prolonged or chronic shortage or lack of water expected or desired to meet demands. In other words, the demands for water exceed the available supply.
Governor Declares Drought State of Emergency

- 2014 projected to be driest on record
- Snowpack is approximately 20% of normal average
- Largest reservoirs have very low water levels for this time of year
- Major rivers have reduced surface water flows due to lack of precipitation
- Groundwater levels have dropped significantly in many areas
2014 Drought Update

Governor Declares Drought State of Emergency

Statewide Economic & Environmental Problems

- Drinking water supplies at risk
- Fewer crops can be cultivated
- Lower income, seasonal workers will suffer heightened unemployment
- Natural species reliant on river flows are in greater danger of extinction
- Wildfire risk is greatly increased
2014 Drought Update

**Governor’s Declaration States**

- State Agencies will execute a statewide *water conservation* campaign
- Local urban water suppliers will implement water shortage *contingency plans*
- State Agencies will implement *water use reduction plans* for State facilities
- Restrictions of voluntary water transfers will be reduced and *transfers expedited*
- Potential for water-rights holders to be directed to *cease or reduce diversions*
2014 Drought Update

Governor’s Actions

- Call to order State Drought Task Force to develop a plan to provide:
  - Emergency food supplies
  - Financial assistance
  - Unemployment services
- Fund additional monitoring activities
- Hire additional seasonal firefighters to suppress wildfires
2014 Drought Update

Governor’s Goals

Health and Safety of Citizens Statewide

- Clean drinking water
- Protection from wildfires
- Protection of threatened and endangered species through contingency plans
- Additional reporting and data gathering on groundwater conditions
2014 Drought Update

**Butte County’s Drought Response**

- Drought Preparedness Plan
  - Drought Task Force
- 2014 Drought Action Plan
Butte County 2014 Drought Action Plan

- Natural disaster response structure
- Two week operational period(s)
- Command and General Staff Sections established
- Operation Sections
  - Water Resources
  - Environmental Health
  - Agriculture
  - Fire
2014 Drought Update

Butte County 2014 Drought Action Plan
Butte EOC Level I Activation Organizational Chart
2014 Drought Update

Butte County 2014 Drought Action Plan

Water Resources Operations Section
2014 Drought Update

Water Resources

State…

- State Water Project Allocation Set to ZERO
- Agricultural surface water districts will turn to groundwater to grow crops or be forced to fallow
- Urban suppliers utilizing surface water will need to find alternative sources
- Groundwater conditions will be further degraded through increased usage
- Water quality may be reduced
2014 Drought Update

Water Resources

Locally...

- Groundwater Levels are at record lows in groundwater dependent areas
- Increased demand on groundwater to offset reduced precipitation and surface water
- There is a threat of cut-backs to SWP Settlement Contractors’ surface water supplies
2014 Drought Update

Water Resources

Local Water Supply Issues

- Local municipal suppliers have jurisdiction over water supplies through their Urban Water Management Plans
  - No expected drought contingency actions this year
  - Some have implemented voluntary water conservation measures
- Private wells may experience problems
- Potential Cutbacks to Surface Water Deliveries
2014 Drought Update

Water Resources

Potential Surface Water Cut-backs

- Loss of surface water supplies due to drought conditions
- Surface water users switching to groundwater to meet their needs
- Increased pumping not related to water transfers is not subject to transfer restrictions from local ordinances
2014 Drought Update

**Water Resources**

**SWP Settlement Contractors Cutback Scenarios (East side)**

- Western Canal Water District and Joint Boards:
  - Up to 50% in any one year
  - Up to 100% in any seven years
  - Result will be increased groundwater pumping
  - Fallowed crops where groundwater is not available
2014 Drought Update

Water Resources

CVP Settlement Contractors Cutback Scenarios (West side)

- GCID and other Sacramento Valley irrigation districts on the west side of the Sacramento River
  - Up to 25% annually based on hydrology of in-flow (<3 MAF for water year)
  - Estimated 15,000 acres fallowed without compensation
- Water distributed on a pro-rata basis
2014 Drought Update

Water Resources

Impacts to the Valley
- Up to 100,000 acres of farmland fallowed within the Sacramento Valley without compensation
- Stress to the groundwater system due to increased pumping
- Increased costs for irrigation to all farmers due to the competition within the groundwater basin
2014 Drought Update

Butte County 2014 Drought Action Plan

Environmental Health Operations Section
2014 Drought Update

Environmental Health

Environmental Health Well Permits
January 2014

- Additional: Applied 4, Issued 3
- Deepening: Applied 4, Issued 3
- Exploratory: Applied 5, Issued 2
- Irrigation: Applied 14, Issued 6
- Small diam.: Applied 18, Issued 12
2014 Drought Update

Agriculture

Preliminary Assessment Process
2014 Drought Update

Agriculture

Livestock concerns

- Poor pasture conditions
- Lack of supplemental feed
- Increased feed costs- 60% increase
- Selling off livestock early- reduction of replacement calves/cows
2014 Drought Update

Agriculture

Crop impacts

- Potential loss of rice acreage- current projection 30-40% reduction in acres
- Economic impact- value of $5-6,000 per acre in economic value- translates to over $150 million impact loss to jobs, sales of goods and services
2014 Drought Update

**Agriculture**

Crop impacts
- Reduction of needed water to orchards
- Reduction or loss of winter grains
- Increased water pumping costs - with added frost protection potential costs
- Loss of bloom for pollinators - further honeybee impacts
2014 Drought Update

Butte County 2014 Drought Action Plan

Fire Operations Section
2014 Drought Update

Closing Comments and Questions