



# Yuba Water Agency

WEF Tour October 10, 2018

# The Vision of our Founders

Vol. 66—No. 133—100th Year Marysville-Yuba City, California Thursday, June 4, 1959 TWENT



**GOVERNOR SIGNS YUBA WATER AGENCY BILL**—A delegation from Yuba County looked on yesterday as Gov. Edmund G. Brown signed into law the Yuba County Water Agency act designed to permit Yuba to develop water resources in the Yuba River watershed. Shown (from left), standing behind Governor Brown are Ben Rose, chairman of the Marysville-Yuba County

Chamber of Commerce Water Committee; Atty. Eugene E. Gray, Supervisor Charles E. Coupe, Supervisor Harold J. Sperbeck and Assemblyman Harold T. Selgwick. Also at the signing ceremony were Supervisor John E. Furnaux of Wheatland and Engineer Collin Handforth. The agency bill does not become effective until 90 days after the Legislature adjourns.

- A reliable water supply
- Improved flood protection
- For the people of Yuba County
- Yuba Water Agency bill signed in 1959



# Why were we created

- Linda 1950 flood and the Yuba City 1955 flood
- Farmers were over drafting the groundwater aquifer resulting in an unreliable water supply
- No action by state or federal entities to control the Yuba. State pursued Oroville and the feds pursued Folsom for multipurpose facilities

# Who are we?

- A stand alone public agency governed by a board of 7 – the 5 board of supervisors and 2 elected at large
- We are the foundational force behind improved flood protection in the county
- We develop and help manage a reliable water supply for the county



# Why the change to Yuba Water Agency?

- We are rebranding the agency with a new logo and moniker to help us enhance the public's understanding of the agency
- Residents confuse us as a department of the county
- Our official name does not change; it is still the Yuba County Water Agency
- Our email address: now use @yubawater.org instead of @ycwa.com (@ycwa.com will still work)

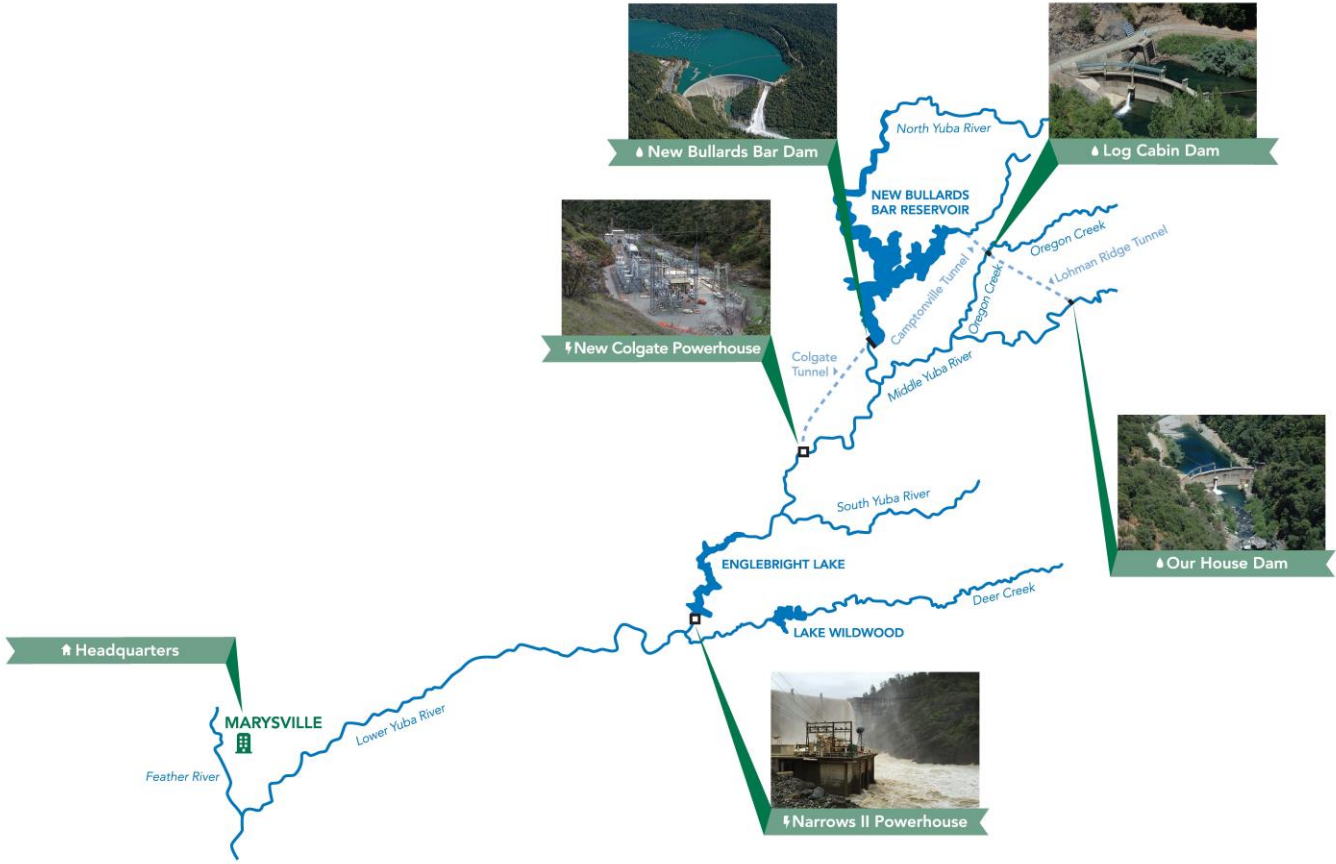


# Our mission and authorizations

- Reducing Flood Risk
- Ensuring a Sustainable Water Supply
- Hydropower Generation
- Fisheries Protection and Enhancement
- Recreation at New Bullards Bar



# Yuba River Development Project



# New Bullards Bar Dam and Reservoir

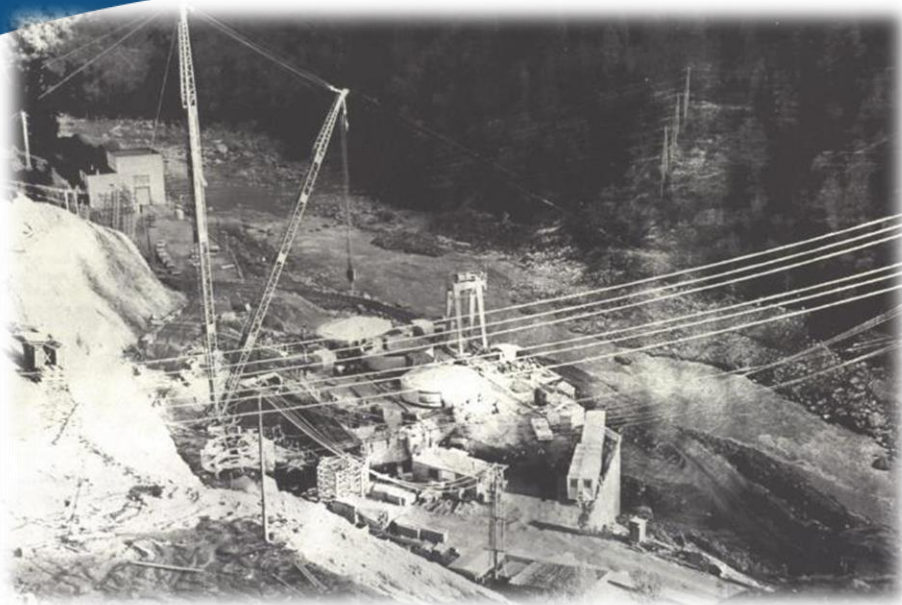
- Provides 170,000 af of dedicated flood storage
- Stores 966,000 af of water for regulatory, beneficial, environmental and recreational purposes
- 5<sup>th</sup> tallest dam in the US at 645 feet high
- Provides water supply for 8 irrigation districts and a byproduct of this is a reliable groundwater aquifer as the sole source of municipal water supply for 80% of Yuba's population



# New Bullards Bar Dam



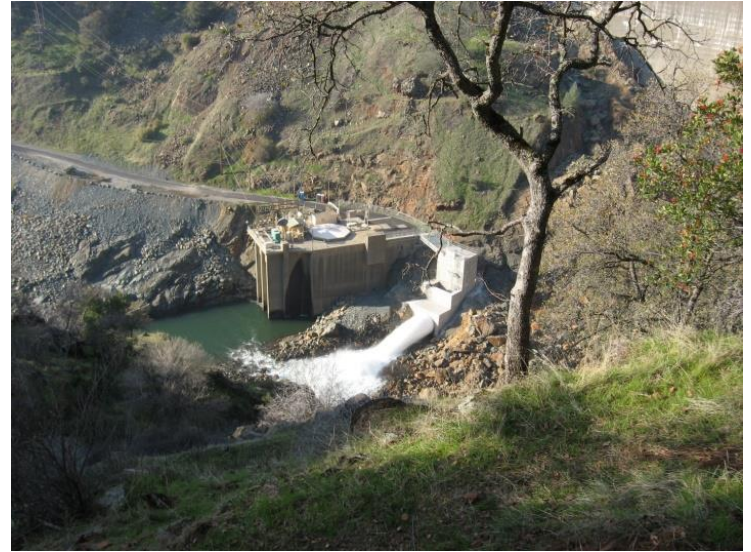
# The facilities to accomplish the vision



New Colgate Powerhouse



# The facilities to accomplish the vision



Narrows 2 Powerhouse

# Colgate and Narrows Powerhouses

- Colgate Units 1 & 2 produce 340 MW of carbon free power
- Narrows 2 produces 55 MW of power
- Total of 495 MW – power 300,000 homes
- The revenues of these powerhouse fund our operations and provide revenue accomplishing our mission

# Yuba Watershed





# Gold Rush Legacy – Hydraulic Mining



# Gold Rush Damage

- Gold Rush hydraulic mining devastated the river
  - destroyed salmon habitat
  - raised river bed, requiring levees to be built for flood protection
- Over 685 million cubic feet of debris was deposited in the river and downstream (three times the amount of earth excavated for the Panama Canal)
- The mining debris raised the Yuba River bed as much as 30 feet
- Increased flood risks
- Resulted in the first US Supreme Court Environmental Decision
- Sawyer decision 1884



# Responding to the Damage

- **Daguerre Point Dam:**  
constructed by the CA Debris Commission in 1906 to contain hydraulic mining debris
- Diversion point - 60,000 ag acres and two fish ladders
- Corps authorized by Congress in 1986 to administer Englebright Dam when Debris Commission was deauthorized



# Responding to the Damage

- **Englebright Dam:** constructed by the CA Debris Commission to contain hydraulic mining debris
- Corps authorized by Congress in 1986 to administer Englebright Dam when Debris Commission was deauthorized
- **BUT**
  - completely blocks passage of anadromous salmonids



# The flood protection story



DWR's Oroville Spillway



1997 Flooding - Arboga

# Flood prone Yuba

- Inadequate flood storage – Corps 1950's study called for 3 reservoirs with dedicated flood storage New Bullards Bar (170,000 af), Oroville (750,000 af) and Lake Marysville (240,000 af) authorized but never built
- 1986 flood resulted in the class action Paterno decision resulting in \$450 million in state payment
- 1997 flood resulted in \$50 million in state payment
- Floods have devastated Yuba County's economy

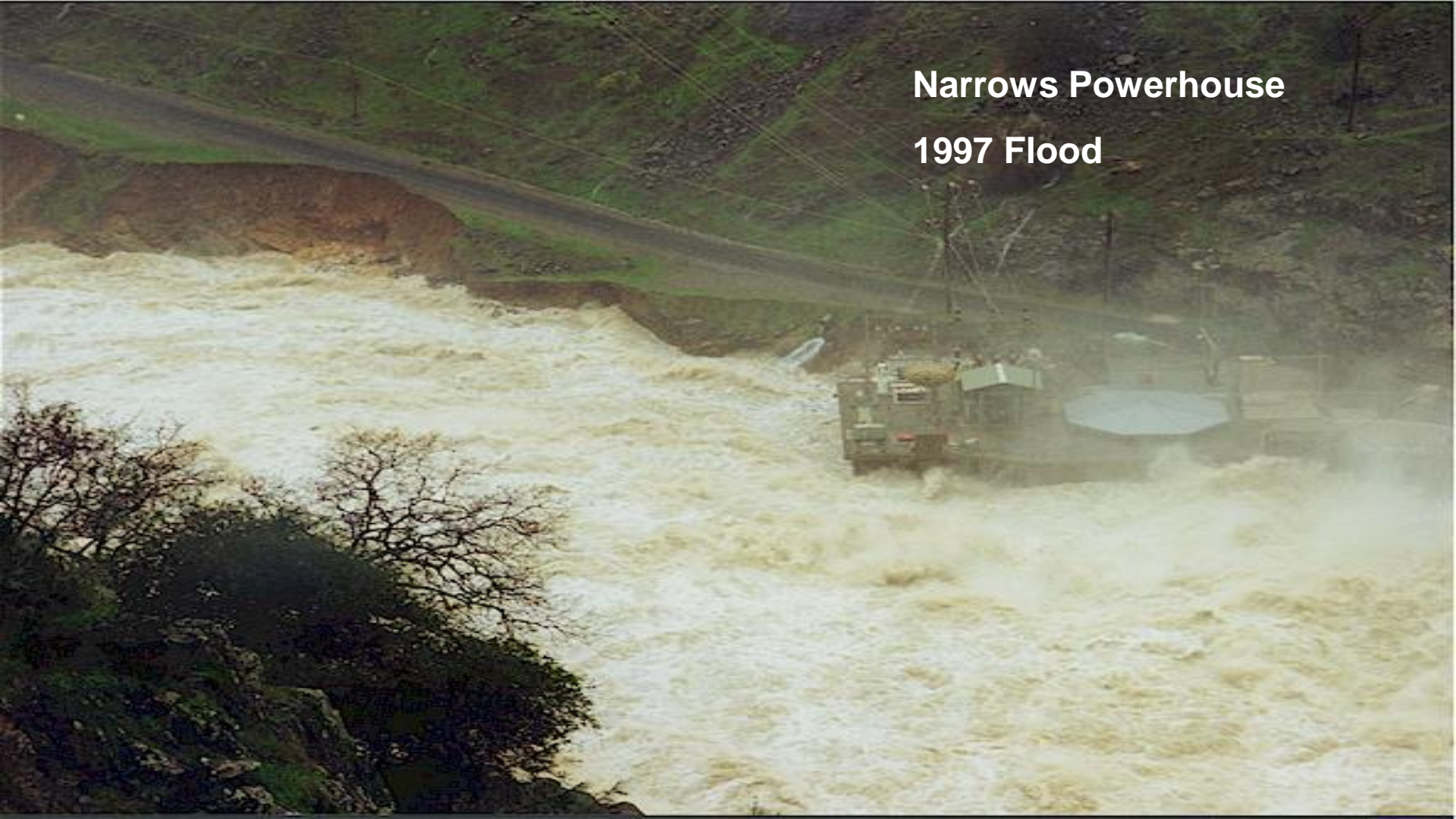




**Englebright Dam  
1997 Flood**



**Narrows Powerhouse**  
**1997 Flood**





# Marysville Sandbagging - 1955





# 1986 flood



# 1986 flood – regional mall now vacant



# 1997 flood



# Major flood protection accomplishments

- Construction of New Bullards Bar with flood storage
- Urbanized areas of south Yuba County and Marysville nearing 200-year level of protection
- Setback levees – flood & environmental benefits
- Rural levee improvements
- Forecasted Coordinated Operations / FIRO programs
- Over \$50 million in local share funding of state and federal projects costing in excess of \$450 million
- Reduced state liability – Paterno decision



# Setback levees

- 3 setback levees with 2,000 acres now in flood plain
- Local share Feather setback - \$78 million in bonds

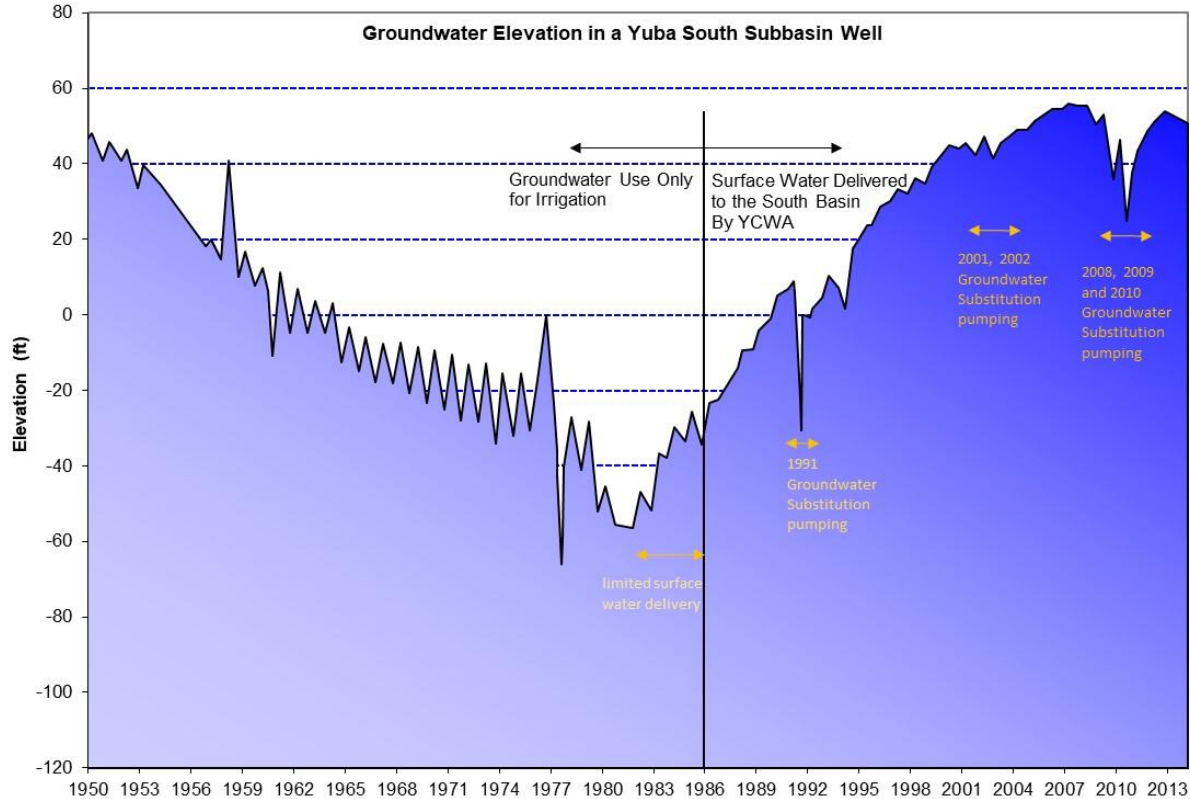




# Levee improvement projects



# The water supply reliability story





# Major Water Supply Accomplishments

- Construction of YRDP
- Expansion of surface water delivery to the south county
- Serve 260,000 af to 8 districts with 60,000 acres
- Ag conservation 20% per Cal Poly 2009 study
- Sustainable groundwater valley aquifer which is the sole source of water for 80% of residents
- SGMA for north and south Yuba aquifers

# Major Water Supply Accomplishments

- Yuba Accord – resolved 20 years of controversy via a landmark settlement agreement providing more water for the environment while retaining a reliable surface water supply
- YWA and Yuba County resolved Gold Village disadvantaged community water and waste water problem
- Funding low income water conservation actions

# The Yuba Accord

- Higher LYR required instream flows
- Local water supply reliability
- Supplemental water supplies for dry-year export supplies
- Revenues fund community benefits
  - flood risk management projects
  - new FERC license application
  - river science programs
  - habitat enhancement/reintroduction
  - conjunctive use for local supply



# Groundwater Activities

- Monitoring and data management (CASGEM)
- Groundwater management plan
- Active Conjunctive use management
- Annual monitoring and measuring report
- Developing groundwater model
- SGMA implementation

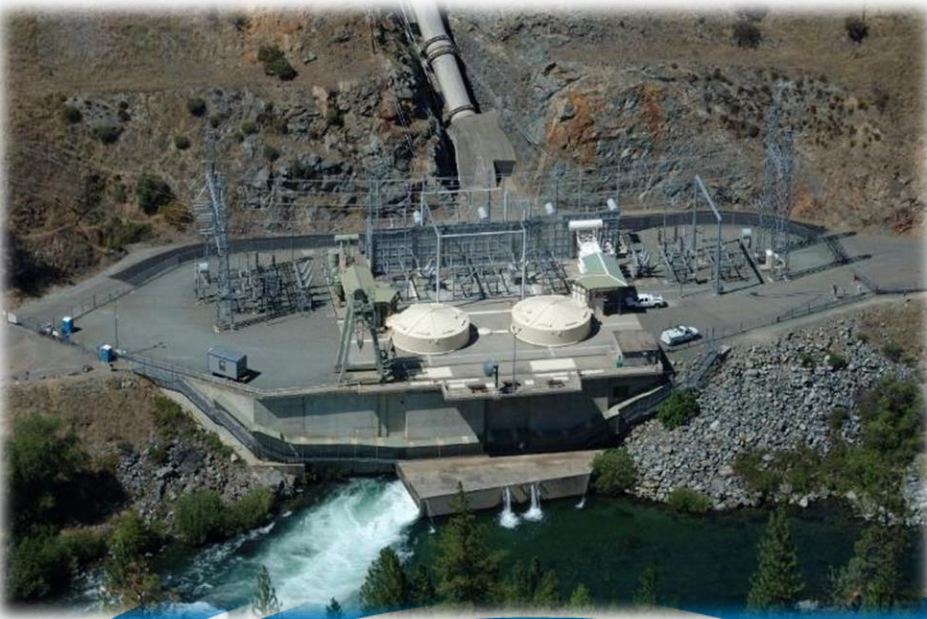
# Watershed improvement

- Winter water provides waterfowl habitat
- Partner in Blue Forest \$1.5 million watershed and fuel load reduction pilot with USFS
- Supporting Camptonville Biomass generation project



# The source of revenue

**Hydroelectric power sales**  
(as of May, 2016)



**Water transfers** outside the county for  
communities and farms in need





# Uses of revenue

- All revenue benefits the people of Yuba County, one of the poorer counties in California
- Operation costs, including capital improvements of 50-year-old plant, relicensing/new FERC license
- Flood protection – security from future floods is a foundation needed to rebuild our economy
- Water supply efforts such as SGMA, Blue Forest
- Environmental efforts such as the River Management Team, habitat projects like those being pursued through the voluntary settlement agreements



# Ongoing and future work

- Strategic plan identified \$455 million in additional flood protection need
  - Additional Urban and rural levee strengthening
  - Secondary spillway
  - Forecast Informed Operations
- FERC Relicensing
- SWRCB Bay Delta Water Quality Control Plan
- Endangered species and fish passage
- Watershed actions – Blue Forest and Biomass
- Updating YRDP assets

# Secondary Spillway at New Bullards Bar



# Secondary Spillway at New Bullards Bar



# Secondary Spillway

- \$160 million project to improve flood storage during major flood events like 1997
- Requires Forecast Informed Reservoir Operations via USACE to create a larger flood pool in advance of major storm event peak flows
- Part of State Plan of Flood Protection that provides regional benefits
- Enhances dam safety



# Community Development & Grants

## Flood Risk Reduction



Feather River Setback Levee

Marysville Ring Levee



## Public Safety



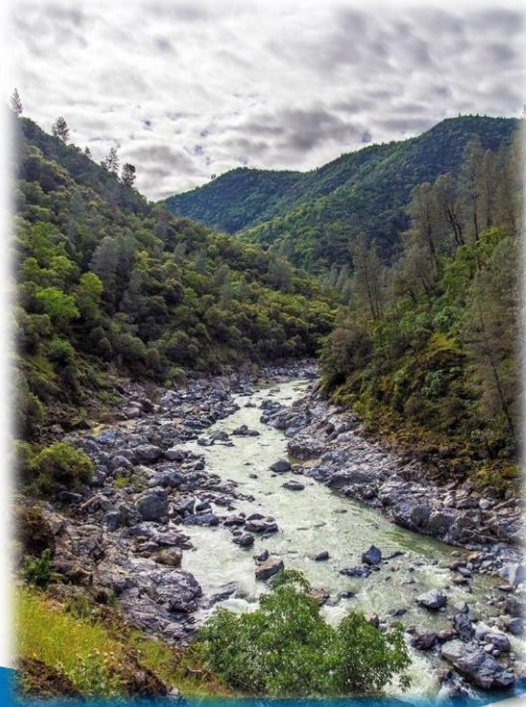
Water tender fire truck  
Dobbins Oregon House  
Fire Protection District

# Community Development & Grants

## Forest Health, Environment and Watershed Protection



River Management Team  
fisheries research



Blue Forest  
Pilot Project



# Community Development & Grants

## Educational Programs

### Fish in the Classroom





# Yuba Water Agency

Questions?