The Vision of our Founders

- 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
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
• 5th 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
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 a 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

- Dam
- Existing Spillway
- New Secondary Spillway
- New Spillway Flip Bucket
Secondary Spillway at New Bullards Bar

Approximate Location of New Tunnel Outlet
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

Blue Forest Pilot Project

River Management Team
fisheries research
Community Development & Grants

Educational Programs

Fish in the Classroom
Yuba Water Agency
Questions?