Yuba River, California
Fish Passage Challenges

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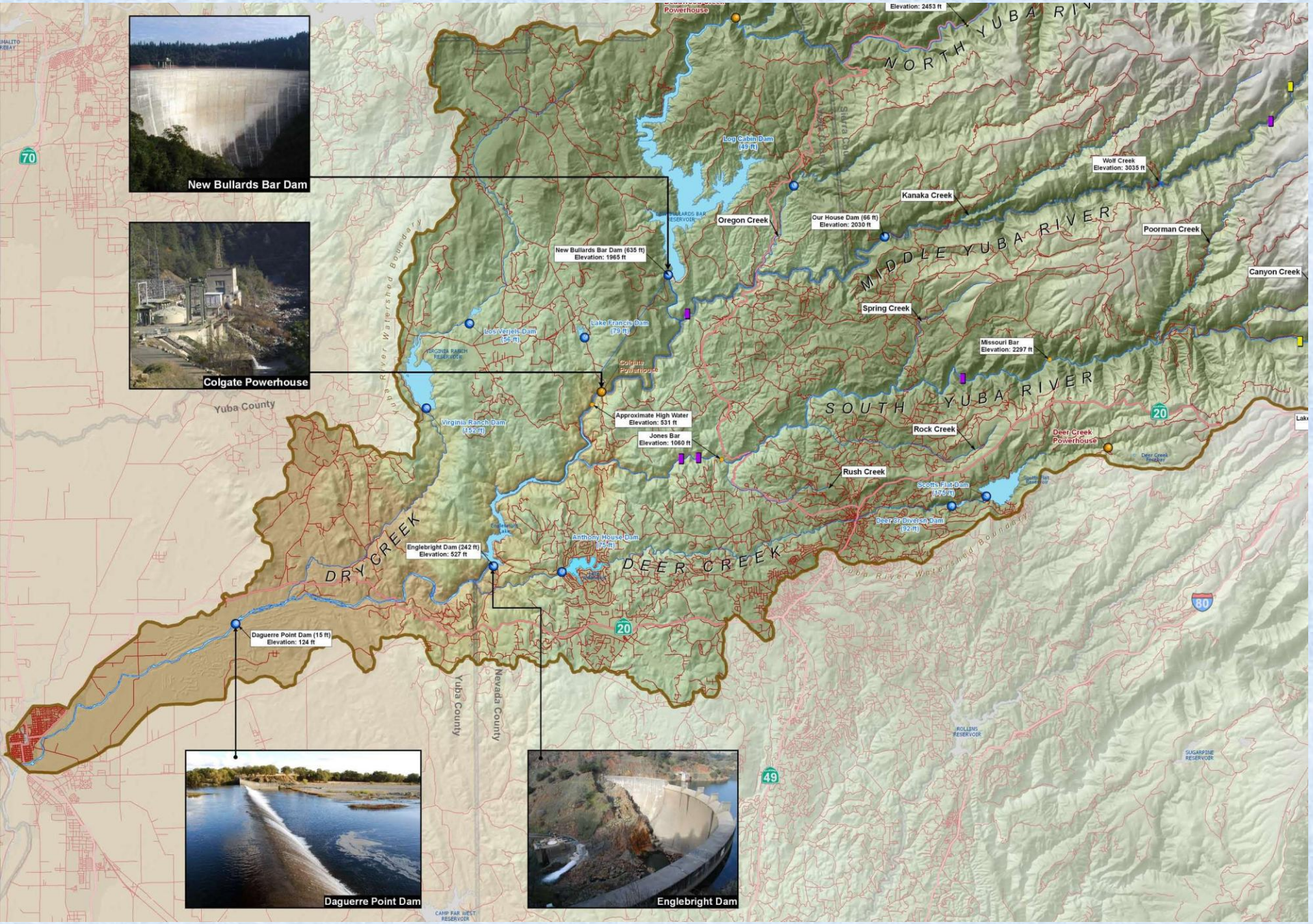
Background

- Long history of challenges
- Hydraulic mining impacts
- Lower Yuba River was physically relocated to current location
- Englebright Dam and Daguerre Point Dam are debris-control features
- LYR recovering, but many challenges remain
- Chinook are limited to lower ~23 river miles (below Englebright Dam)

Recent Management Actions

- Ongoing studies of fish passage problems and solutions since late 90s (and earlier)
- Yuba River Accord for water flow and temperature management to meet various diverse stakeholder needs and protect resources
- ESA Section 7 Consultation for Englebright and Daguerre Point dams (Lawsuits since 2007 and 2012 Draft Jeopardy BO)
- Ongoing FERC Relicensing related to power facilities at Englebright and New Bullards Bar dams (YCWA and PGE)
- Various diversions removing water (one intake redesign underway).


New Bullards Bar Dam
Colgate Powerhouse
Daguerre Point Dam
Englebright Dam
NORTH YUBA RIVER
MIDDLE YUBA RIVER
SOUTH YUBA RIVER
DRY CREEK
DEER CREEK
Elevation: 2453 ft
Log Cabin Dam (49 ft)
Wolf Creek Elevation: 3035 ft
Kanaka Creek
Oregon Creek
Our House Dam (66 ft) Elevation: 2030 ft
Poorman Creek
Canyon Creek
New Bullards Bar Dam (635 ft) Elevation: 1965 ft
Spring Creek
Missouri Bar Elevation: 2297 ft
Los Verjels Dam (56 ft)
Lake Francis Dam (79 ft)
Colgate Powerhouse
Yuba County
Virginia Ranch Dam (152 ft)
Approximate High Water Elevation: 531 ft
Jones Bar Elevation: 1060 ft
Rock Creek
Deer Creek Powerhouse
Rush Creek
Scotts Flat Dam (175 ft)
Deer Cr Diversn Dam (92 ft)
Anthony House Dam (76 ft)
Englebright Dam (242 ft) Elevation: 527 ft
Daguerre Point Dam (15 ft) Elevation: 124 ft
Yuba County
Nevada County
Yuba River Watershed Boundary
ROLLINS RESERVOIR
SUGARPINE RESERVOIR
CAMP FAR WEST RESERVOIR
70
20
80
49

Daguerre Point Dam
RM 11.5, 24 ft high

Englebright Dam
RM 23.9, 260 ft high

New Bullards Bar Dam
RM 42, 645 ft high

Ongoing Activities

- Yuba River Accord RMT studies of physical aspects and fish movements in Lower Yuba River.
- Habitat restoration and monitoring
- Corps Feasibility Study for ecosystem restoration and fish passage – Looking to start in 2015
- Gravel augmentation below Englebright Dam
- Large wood placement in Lower Yuba River
- Studies of habitat suitability

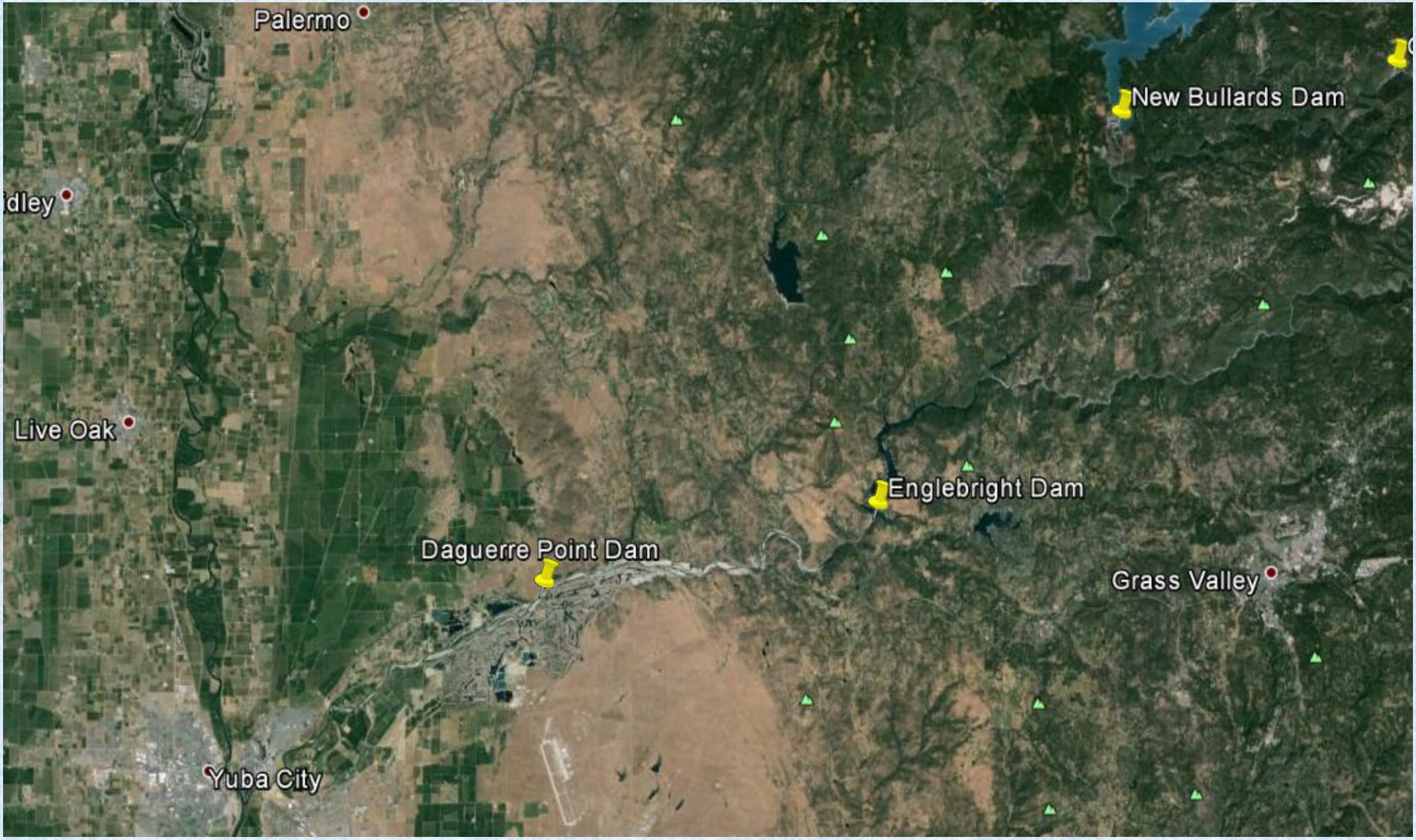
Challenges

- Fall/Spring overlap
- Yuba River/Feather River hatchery overlap
- Limited spawning and rearing habitat in LYR
- Water temperature management with ongoing drought conditions
- Green sturgeon unable to pass DPD
- Passage improvements at DPD may increase predation of juvenile salmon above DPD
- Various water diversions on the LYR need to be considered

Challenges-continued

- Significant challenges for passage over Englebright Dam
- Mercury laden sediments behind dams hinders any dam removal/lowering
- Habitat quality issues in reaches above Englebright to New Bullards Bar Dam
- Temperature issues in the Middle Yuba and South Yuba Rivers, so limited value for Chinook
- North Yuba River above NBB dam higher quality habitat, but requires additional passage over 645 foot high dam

Lower Yuba River



Potential Solutions

- Passage around Englebright combined with habitat restoration and flow management changes
- Fish translocation around Englebright and NBB dams
- Habitat restoration in the Lower Yuba River combined with increased management of access by Chinook salmon to better segregate spring-run and fall-run

Potential EWN Projects

- Rock ramp at Daguerre Point Dam with additional features (on ladders) to control access upstream
- Pilot project at Englebright Dam to determine feasibility for passage (passage with notch, or new technology demonstration project)
- Segregation technology on Lower Yuba River as proof of concept, or identify means to segregate fish during spawning or for transport (upstream or downstream)
- Other?


08.01.2013


06.18.2014

Discussion