

Upper Sacramento PWT
March 25, 2015

Roundtable Updates

Butte Creek (CDFW Chico):

- Observed low numbers of Brood-year 2014 spring-run at the rotary-screw trap: ~15,000 fish
- 2014 adult Spring Chinook escapement was 4800
- 2015 monitoring:
 - First adult observed on Feb. 14
 - Second year of using the Vaki system
 - March 15 is typically peak for returning adults and as of March 10, 1300 have been observed
- Reservoirs in the upper watershed are 78% filled

Red Bluff Juvenile Winter Chinook Monitoring (RB USFWS):

- Brood-year 2014 winter-run Chinook salmon juvenile monitoring estimated production to be ~518,000 fry equivalents.
 - Translates into an estimate of egg to fry (ETF) survival of 5.7% with a range of 3.3 to 8.1% based on confidence intervals around the estimate.
 - Lowest ETF estimate in nearly 20 years of monitoring, which typically averages ~25%.
- Brood-year 2014 juvenile fall run monitoring indicates low survival with a passage estimate of ~3.6 million juveniles.
 - Likely biased low, due to staffing effort, as the project was reconfiguring their rigging operations at the dam during the second pulse of fall run in February.
 - Back to 7 days per week sampling due in part to the mild weather conditions and new staff coming online.

Sacramento River (USACOE Redding):

- Robert Chase is now working for ACOE out of Redding on Sac. River projects, Section 10 and 404 permits and Section 7 consultations
- When people are on the river and see violations please take down some information and share with the Redding office
 - Coordinates, pictures
 - Example of violation: landowner pushing gravel into the river
- New legal definition of navigable waters will be released soon
 - Shouldn't affect the Sacramento River or tributaries
 - Thought to be broader definition
 - Final draft is open to the public for comment

Red Bluff Green Sturgeon Monitoring (RB USFWS):

- 2014 experimented with various gears for capturing juvenile green sturgeon
 - Although we didn't collect any juveniles we learned how to sample our trawl nets effectively
- Hope to expand sampling area in 2015

Clear Creek (RB USFWS):

- Last several years observed that spring pulse flows aid in moving fish into the Creek and moving them upstream
 - 2014 evaluated pulse flows using the video weir and snorkeling
- Working with CDFW to investigate installing a resistance board weir
- Had the highest spring-run adult escapement in 2013 but only observed 95 fish in 2014
- 2014-2015 kayak surveys are almost complete and have observed over 200 *O. mykiss* redds and large number of late-fall Chinook redds
- Brood-year 2014 juvenile spring Chinook capture was very low (~ 3,000) and have captured 30% of expected catch
 - High flows in Nov. and Dec. could have impacted sampling
- Brood-year 2014 juvenile fall Chinook capture was 145,000 which is less than expected with high adult escapement
 - Trap was out of the water due to storms during peak out-migration in early Feb.
 - Temperatures and scour from flow events could've also impacted production

Battle Creek (RB USFWS):

- Adult escapement for 2014 spring Chinook was 429, third highest escapement
- Adult escapement for 2014 natural origin late-fall Chinook was 120, which is the highest it has been in 6 or more years.
- Difficulty with juvenile estimates because of high flow events in winter.
 - Lost the rotary-screw trap during Dec 4, 2014 storm event (flow reach 15,000 cfs which is the fourth highest flow on record) and the trap was later found downstream
 - Another trap was installed but very little sampling because of other storm events

Sacramento River Temperatures (RB USFWS):

- 2014 – Sac. River temperatures led to the trucking of 3 fall-run releases groups from Coleman National Fish Hatchery
- Livingston Stone National Fish Hatchery anticipated poor temperatures for winter-run and expanded the 2014 production
 - 400 adult fish were used and 600,000 juveniles were released
- For 2015 winter-run production LSNFH is currently keeping every fish but are seeing a skewed sex ratio (70% female)
- The 2015 Sac. River forecast is similar to last year and would run out of cold water by the end of the summer
- There is a potential to re-initiate captive bloodstock program especially if there is another drought year
 - These fish would be used to reintroduce winter-run above Shasta Dam

Anadromous Fish Restoration Program (RB USFWS):

- Habitat and barrier surveys have been completed on Cow Creek
- Geomorphology studies on Cottonwood and Antelope Creeks
- Riparian assessments have been completed on Mill and Deer Creeks
- Hammer Dam was removed on the South Fork Cottonwood Creek allowing for additional Steelhead habitat
- Funding for another year of juvenile acoustic studies
- Redd de-watering surveys were completed for another year on the Sacramento River
- This summer, Ward Dam on Mill Creek will be retro-fitted with a new fish ladder

- Fish passage work will be completed on Deer Creek at Upper Dam location
- There will be an Upper Sacramento River and Tributaries session at the Cal-Neva AFS conference in Santa Cruz, April 8-10

Anadromous Fish Restoration Program (CDFW Redding):

- There has been a full year of study on the impacts of marijuana cultivation on water quality
- Removal of mercury from dredge tailing on Clear Creek, which will provide a 10-year supply of spawning gravel
- Fish passage improvements on Clover Creek include building a ladder at the dam/siphon and will allow access to 10 miles of habitat
- Juvenile fish passage issues on Antelope Creek was an AFRP project but now will be completed under the Environmental Restoration Program (ERP).

Anadromous Fish Restoration Program (CDFW Sacramento):

- Studies on the Yuba River are being completed to assess restoration projects
- Drought studies are also being conducted on the Yuba River
- A new screen was installed on the Sacramento River
- Final report for 2014 Wallace Weir/Colusa Basin Drain monitoring should be out in a month
- Additional gravel augmentation projects on the American River

Colusa Basin Trap and Haul (CDFW Sacramento):

- Currently there is a fyke installed at the Wallace Weir locations and 700-750 fish have been trapped
 - Mainly all fall-run but there were 6 recent fish that could potentially be winter or spring-run
- There is a resistance board weir that was going to serve as a back-up, but is not installed
- Also used a Didson for salmonid detection
- Acoustic studies are being completed with adult Chinook and fish are being tagged at the top of the Delta (Jersey Point)
- Wrapping up 3 years of work of studying Mokelumne River straying

Funding Update (IEP):

- Management team is trying to develop a priority list for projects that are ready to be implemented to resolve some of the data gaps in the Upper Sacramento River
 - Formal request for proposals will be coming soon
 - Focus is on important science
 - Timeframe for the proposals will be now-July
 - If you have questions or want information email Doug Killam and he will provide the contact information

Sacramento River Projects (CDWR Red Bluff):

- Primary designs for the floodplain and channel projects at Cypress Bridge and Anderson will be presented in April

Kopta Slough Update (CDWR Red Bluff):

- The feasibility study has been completed and will be release soon
- Document with EIA details and project description will be available in coming months

Fish Health in Sacramento River (USFWS CA/NEV Fish Health Center)

- Currently investigating the distribution and prevalence of a stomach parasite *Ceratomyxa shasta* (*C. shasta*)
- This parasite has been documented as killing a high number of fish in Klamath River
- Sampling in the Feather River has found that there is a high percentage of natural fish with this parasite
- Observed at Red Bluff Diversion Dam
- Potential issue for juveniles and linked to pre-spawn mortality
- Look for bulging eyes, fluid in the stomach, dark and lethargic also hemorrhaging at the vent
- National Wild Fish Survey allows to track pathogens in wild fish
- Endemic parasite but might be more prevalent in drought conditions
- Contact Fish Health for more information or for sampling

Next Year's Meetings: March 23, 2016

Hosting Agency: California Department of Water Resources