

RECLAMATION

Managing Water in the West

2020 Project Overview & Future Research Direction



Jobaid Kabir



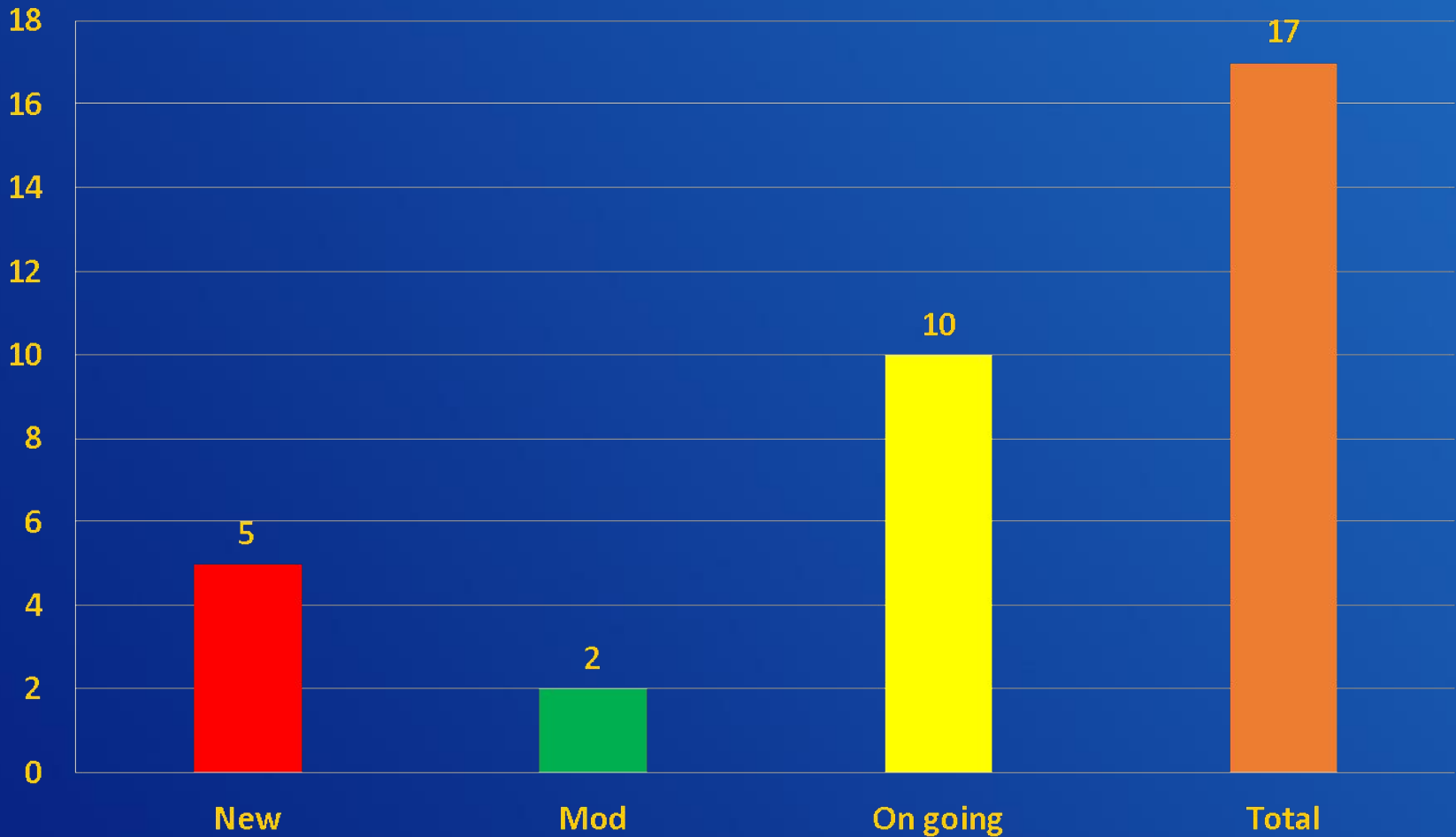
U.S. Department of the Interior
Bureau of Reclamation



FY20 US Bureau of Reclamation Projects

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No of FY20 Reclamation Projects



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New Projects Initiated In FY20

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Tulare Basin Endangered Species Surveys

- **Academic Partner: California State University, Stanislaus**
- **Project Cost: \$75,272**
- **Start Date: September 2020**
- **End Date: December 2021**

Conservation Hatchery Operation for Delta Smelt Refuge Population Maintenance and Support

- **Academic Partner: University of California at Davis**
- **Project Cost: \$3,070,264**
- **Start Date: August 2020**
- **End Date: February 2025**

Delta-Mendota sub-basin models and evaluation of stakeholder Groundwater Sustainability Plans

- **Academic Partner: University of California, Merced**
- **Project Cost: \$30,859**
- **Start Date: August 2020**
- **End Date: September 2022**

Modeling effects of wildfire and fire retardant on nutrients downstream in a watershed scale

- Academic Partner: University of California, Chico
- Project Cost: \$15,000
- Start Date: August 2020
- End Date: September 2022

Food-temperature optimization model for Central Valley Project Reservoirs

- Academic Partner: University of California at Davis
- Project Cost: \$239,756
- Start Date: September 2020
- End Date: July 2023



FY20 Mods to Existing Agreements to Add Funds

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Assessing the Impacts of Different Contract Points on Predation-Related Mortality of Juvenile Chinook Salmon in the Sacramento-San Joaquin Delta

- Academic Partner: University of California UC-Santa Cruz
- Project Cost: \$2,292,000
- Start Date: September 2018
- End Date: September 2023
- In FY21 added \$595,961 to the 2018 agreement

Drivers of Delta Smelt Health and Condition and Reproduction

- Academic Partner: University of California at Davis
- Project Cost: \$1,490,000
- Start Date: September 2017
- End Date: April 2022
- In FY21 added \$850,000 to the 2017 agreement



Ongoing Projects Initiated Before FY20

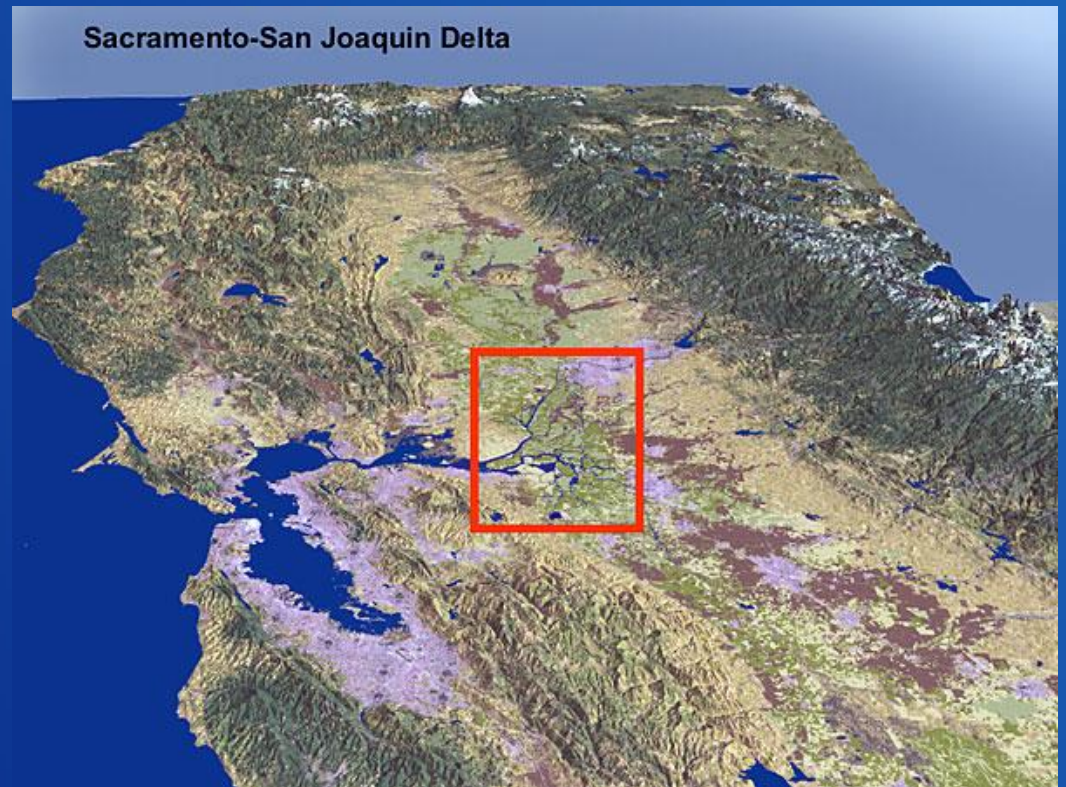
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Cyber-Infrastructure Development in Support of Real-Time Water Quality Management

- **Academic Partner: University of California, Merced**
- **Project Cost: \$750,000**
- **Start Date: March 2017**
- **End Date: September 2021**

Delta Smelt Research and Refuge Population Development

- Academic Partner: University of California at Davis
- Project Cost: \$9,953,000
- Start Date: March 2015
- End Date: February 2020



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Sea Grant Delta Science Fellows Program

- **Academic Partner: University of California, San Diego**
- **Project Cost: \$1,100,000**
- **Start Date: March 2016**
- **End Date: February 2021**

Integrated Modeling Tool

- **Academic Partner: University of California, Merced**
- **Project Cost: \$61,000**
- **Start Date: May 2017**
- **End Date: September 2020**

Enhanced Acoustic Tagging, Analysis, and Real-Time Monitoring of Wild and Hatchery Salmonids in the Sacramento River Valley

- Academic Partner: University of California UC-Santa Cruz
- Project Cost: \$2,784,000
- Start Date: May 2018
- End Date: December 2020

Life-Cycle Modeling Project

- **Academic Partner: University of California UC-Santa Cruz**
- **Project Cost: \$2,776,000**
- **Start Date: September 2018**
- **End Date: June 2022**

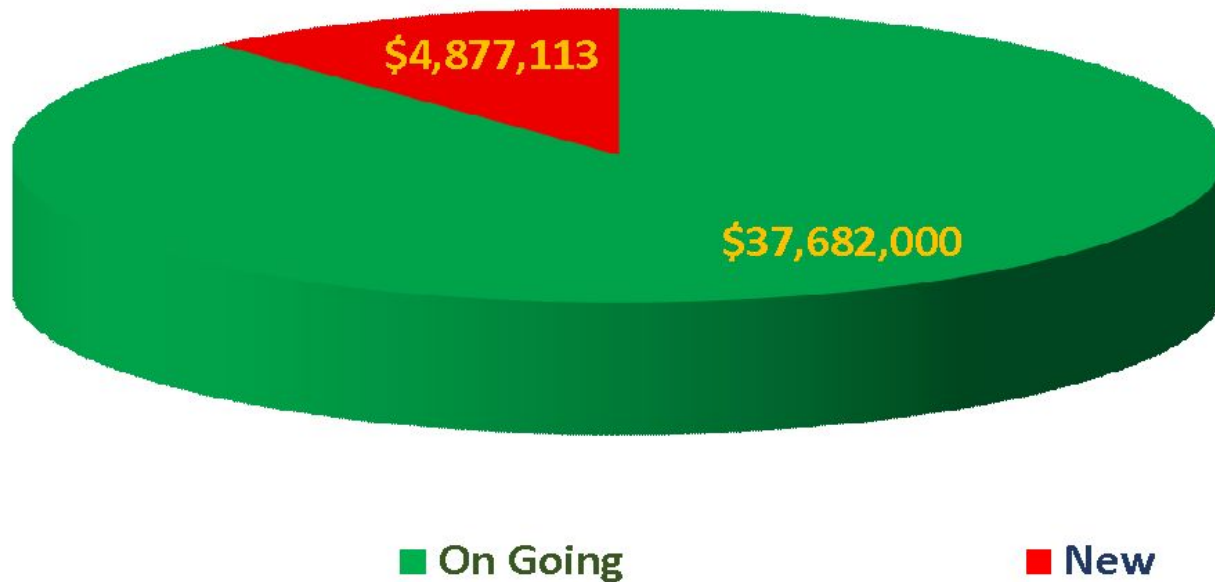
Anadromous Salmonid Habitat Restoration in the Sacramento River

- Academic Partner: University of California, Davis
- Project Cost: \$16,936,000
- Start Date: September 2016
- End Date: June 2021

Evaluation of Cultured Delta Smelt Exposure to Contaminants from the Sacramento-San Joaquin River Delta

- Academic Partner: University of California at Davis
- Project Cost: \$440,000
- Start Date: September 2019
- End Date: July 2020

FY 2020 Reclamation Projects (\$42,559,113)



Potential Future Directions

- Fisheries Mitigation
- Salinity Management
- Forest Fire Impact and Forecasting
- Climate Change Impact Analysis