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<td><strong>Filer:</strong> Jann Mitchell</td>
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State Water Project’s August 2020 Heatwave Operations & Summer 2021 Operations Outlook for California Energy Commission’s Summer 2021 Energy Reliability Workshop
Content

- State Water Project Overview
- SWP Operations - August 2020 Heatwave
  - Objectives
  - Actions Taken
  - Results
- 2021 SWP Operations Outlook
- Questions
SWP Overview - Purpose

- Primary Purposes
  - Water Supply
  - Flood Control

- Additional Benefits
  - Environmental Needs
  - Power Generation
  - Recreation
SWP Overview - Facilities

SWP Facilities

- 34 Storage Facilities
  - Oroville (3.5 MAF)
  - San Luis (2.02 MAF, SWP Share 1.06 MAF)
- 29 Pumping and Generating Plants
  - Edmonston (1926’)
- 3 Pump/Gen Plants
- 700 Miles of Canals and Pipelines
SWP Overview

Field Divisions (FD)

1. Oroville FD
2. Delta FD
3. San Luis FD
4. San Joaquin FD
5. Southern FD
SWP Objectives During August 2020 Heatwave

- Maintain water delivery to its Contractors
- Maintain compliance with all regulatory requirements
- Assist California Independent System Operator (CAISO) grid operations by offering additional generation and reducing consumption during peak electricity demand period
SWP Operations During August 2020 Heatwave

Actions Taken

- Responded to CAISO’s exceptional dispatches
- Utilized afterbay storage to provide additional generation
- Used pumped-storage at Gianelli PGP to inject additional generation into the grid during peak hours
- Leveraged the terminal reservoir storages to reduce peak pumping
- Coordinated with State Water Contractor to increase water demand providing additional peak generation at Devil Canyon GP
- Collaborated with operating partner to shift the Federal’s peak pumping from Jones PP. to non-peak pumping at Banks PP.
SWP Operations During August 2020 Heatwave - Results

**Valley String Pumping Plants**

- **Banks Pumping Plant**
  - 2020 load reduction: -6 MW to -70 MW

- **Edmonston Pumping Plant**
  - 2020 load reduction: -90 MW to -210 MW

- **Gianelli Pumping-Generating Plant**
  - 2020 additional generation: 35 MW to 90 MW

- **Devil Canyon Powerplant**
  - 2020 additional generation: 30 MW to 160 MW

- **Oroville Complex**
  - 2020 additional generation: 60 MW to 260 MW
SWP Operations – 2021 Outlook

Percent of Average Precipitation (%)
10/25/2019 – 10/24/2020

Water Year 2020

Percent of Average Precipitation (%)
10/1/2020 – 4/14/2021

Water Year 2021 to date
SWP Operations – 2021 Outlook & Preparation

Outlook

- Hydrologic dry year reduces available water for generation
- 5% allocation results in less water release for generation
- 2021 SWP generation is estimated to be only 35% of 2020 level
- 2021 SWP Banks and Valley String pump loads available for reduction are estimated to be only 25% of 2020 level
SWP Operations – 2021 Outlook & Preparation

Preparation

- Insofar as possible schedule generator outages during non-summer months
- Develop emergency communication protocol with CAISO
- Participate in CAISO tabletop summer readiness exercise
Questions?