

Proposed Drought-Related Emergency Regulation for Curtailment of Diversions on Mill and Deer Creeks Due to Insufficient Flow for Specific Fisheries

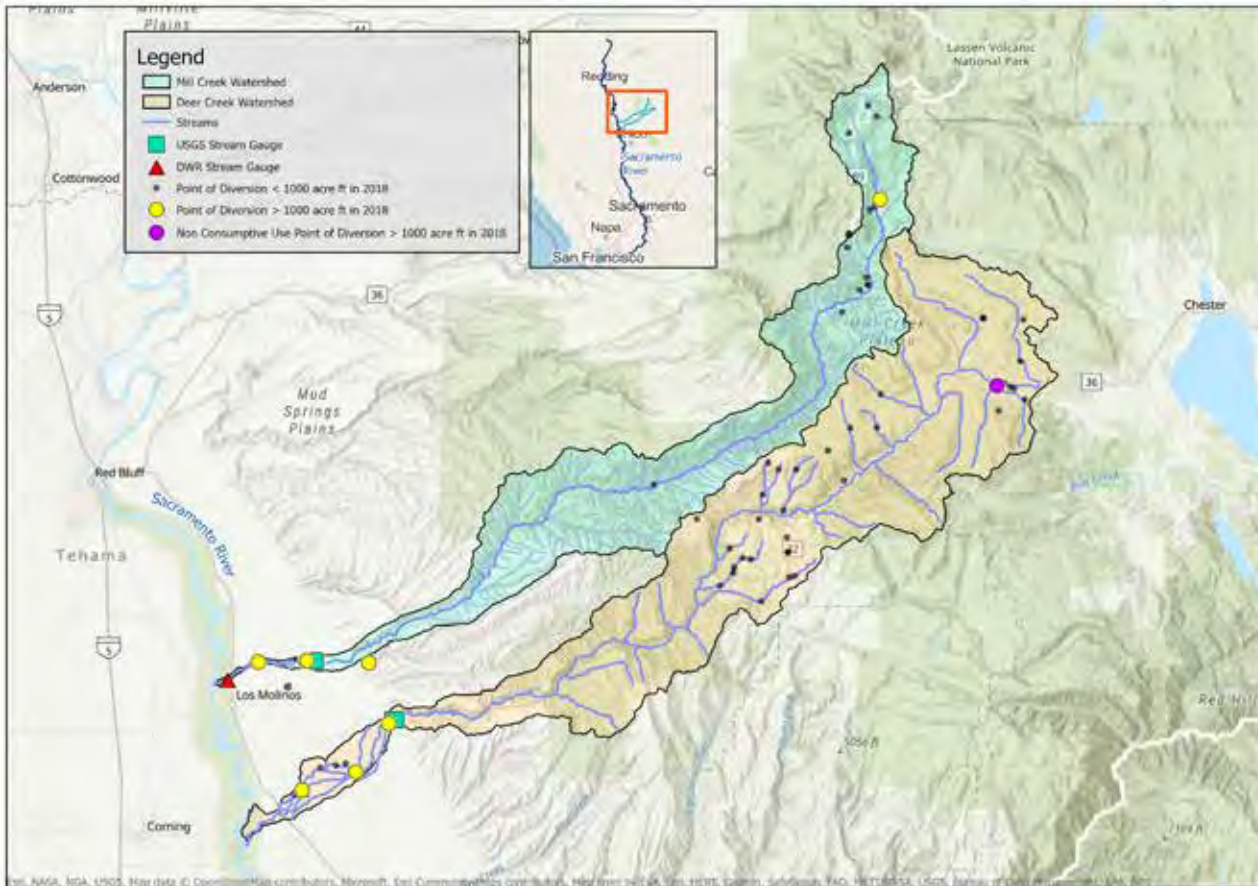
Agenda Item 15
September 22, 2021



Bay-Delta and Hearings Branch

Agenda

- Introduction
- Emergency Conditions
- Drought Outreach and Actions
- Need for Regulation
- Overview of Proposed Emergency Regulation
- Public Comments Overview
- Next Steps and Schedule



Mill Creek and Deer Creek Watersheds

Sources: CA SWRCB, USGS, ESRI
 Map By: CA SWRCB, Division of Water Rights
 9/8/2021, L. Beaudin



0 2 4 6 8 Miles
 Scale: 1:360,000



Introduction: Project Team

Division of Water Rights

- Stephen Louie
- Nicole Williamson
- Hwaseong Jin
- Lauren Beaudin
- Karen Niiya
- Diane Riddle

Office of Chief Counsel

- David Rose
- Marianna Aue
- Samantha Olson

Consultant

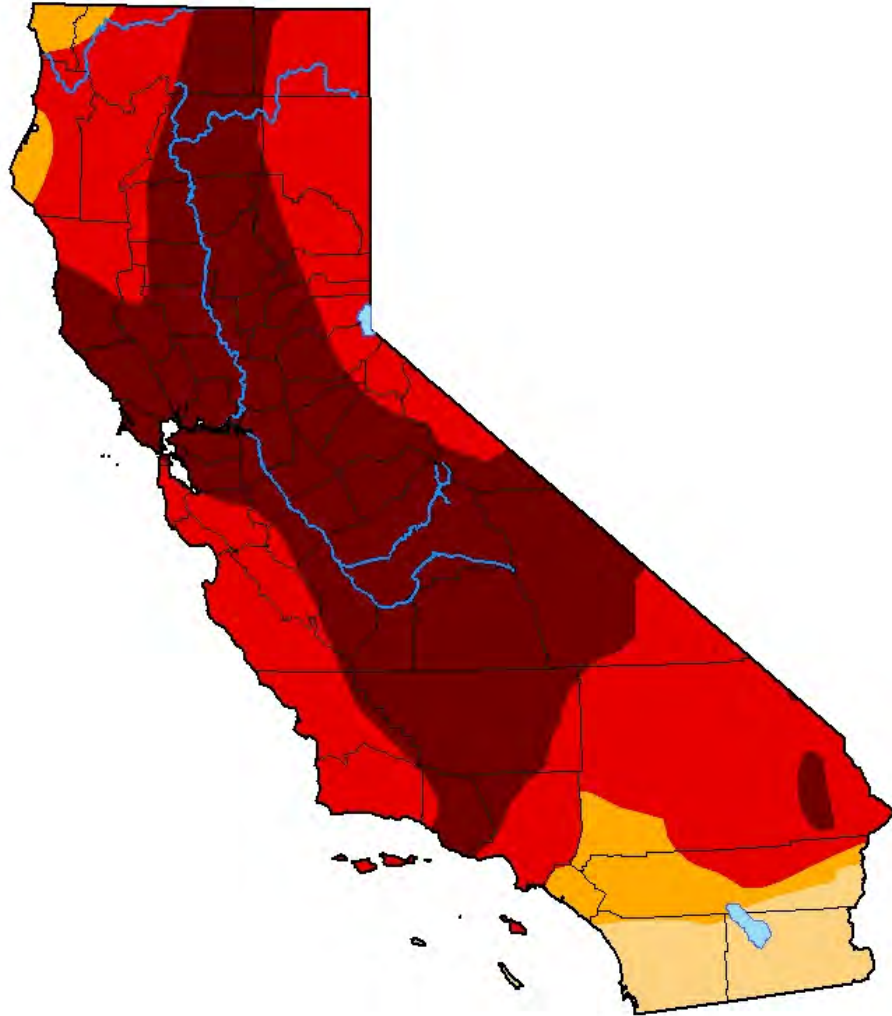
- Mike Taylor

Other Offices

- Office of Public Affairs



Evidence of Drought Emergency



Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

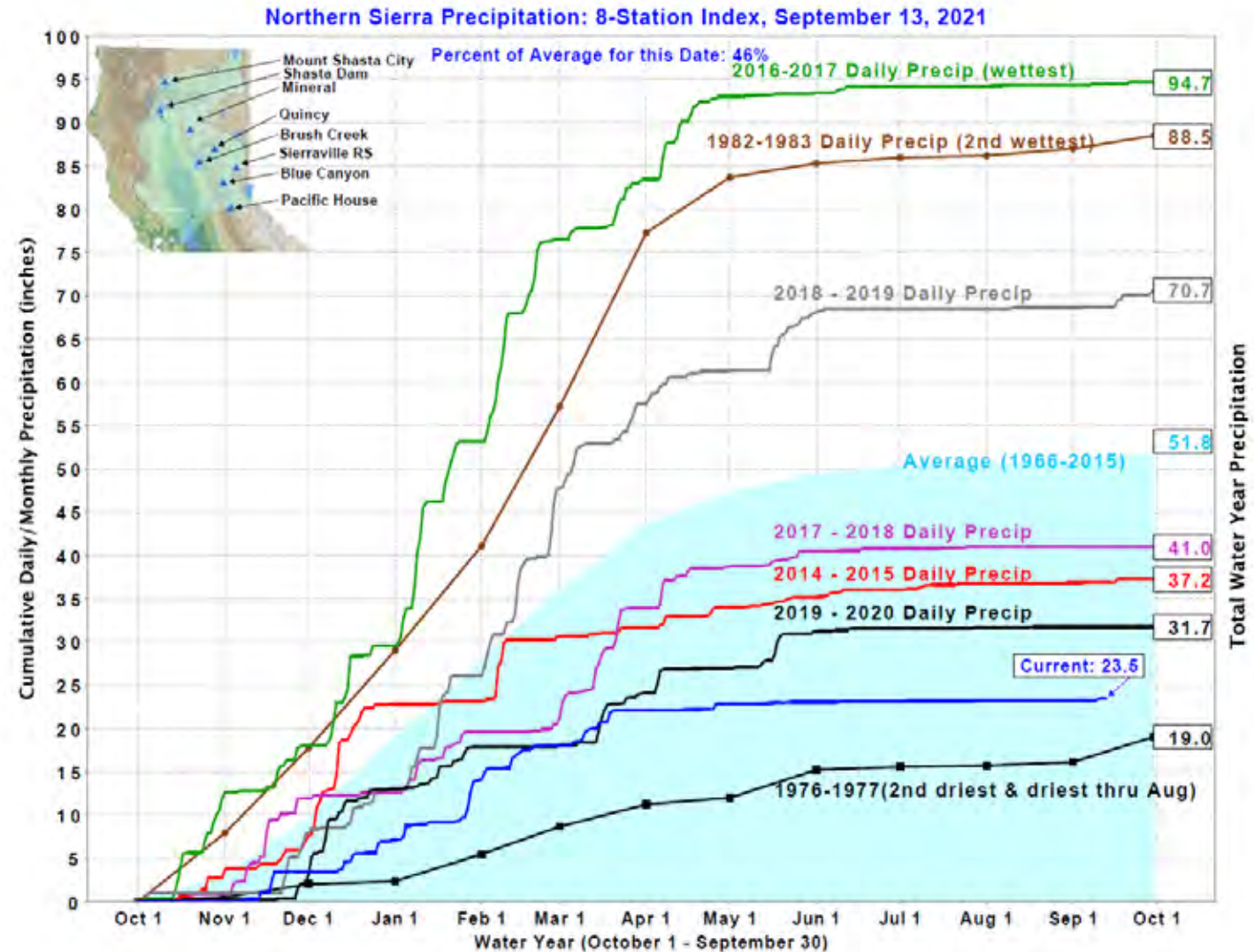
David Simeral
Western Regional Climate Center



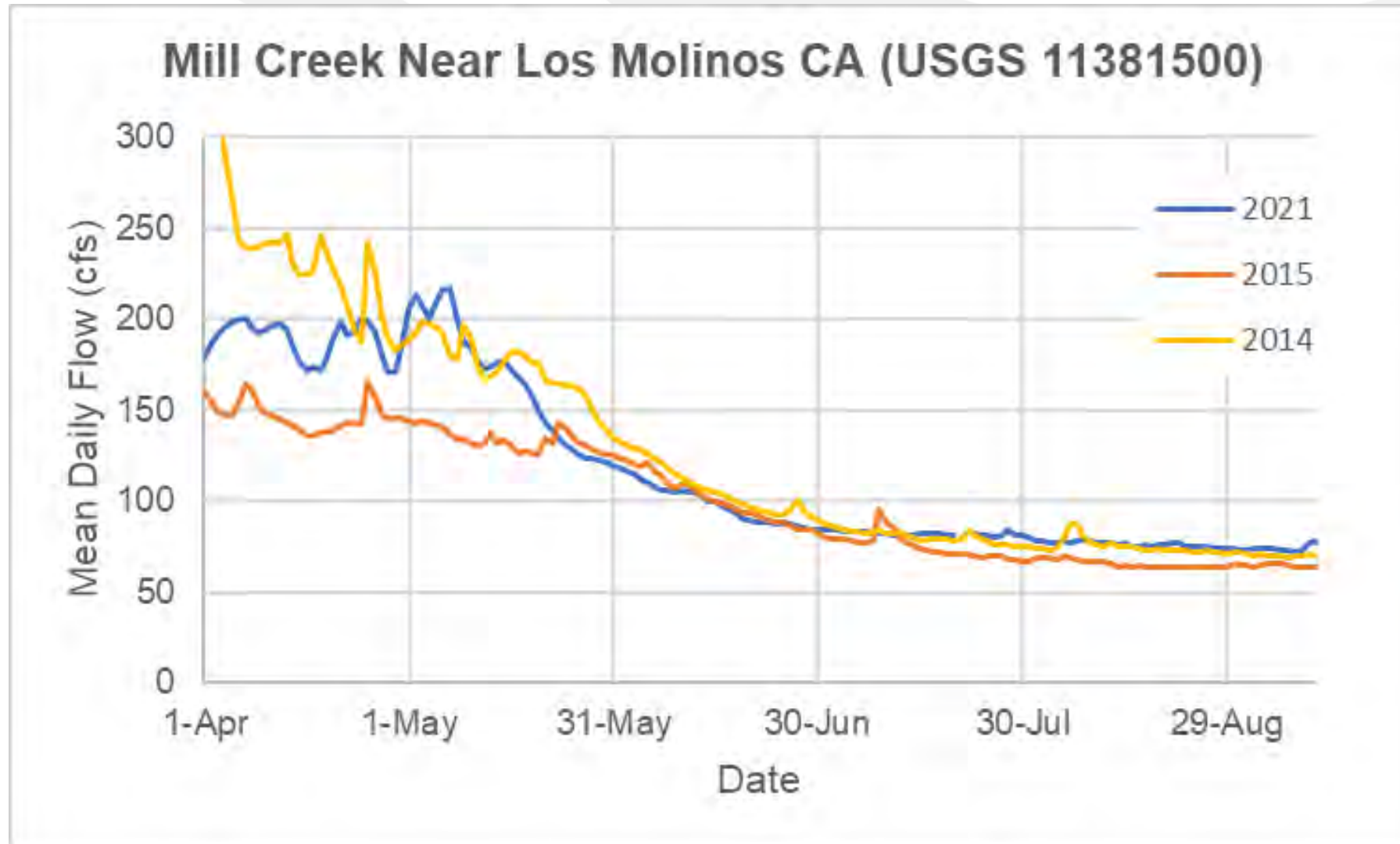
droughtmonitor.unl.edu

Emergency Conditions: Weather

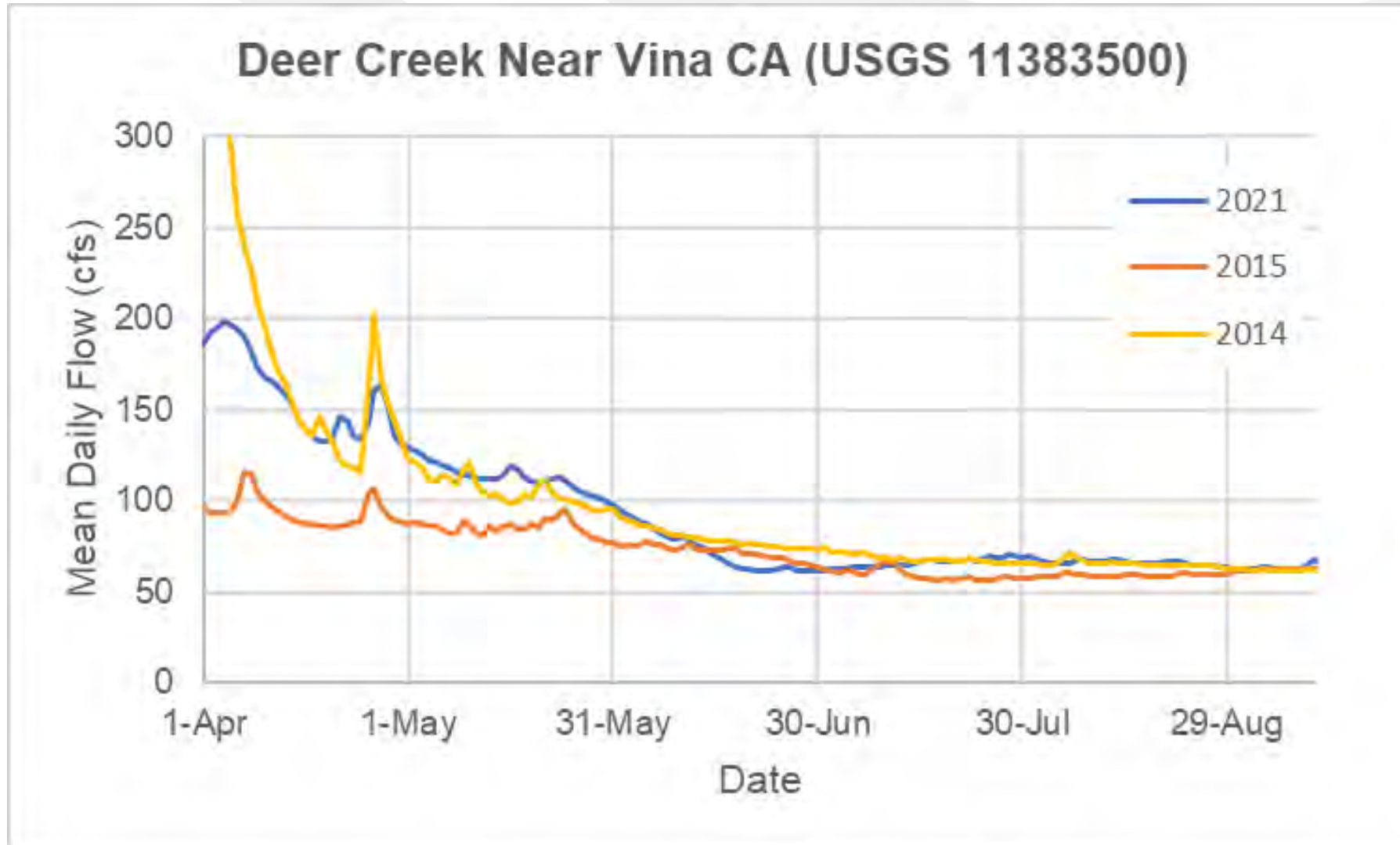
- Water years 2020/2021 - second driest two-year period on record to date, behind 1976/1977
- April/May/June 2021 period was the warmest and driest since 1896



Evidence of Drought Emergency: Mill Creek Streamflows



Evidence of Drought Emergency: Deer Creek Streamflows



Drought Proclamations

- April 21 – Initial Proclamation of State of Emergency (to address Russian River watershed in Mendocino and Sonoma Counties)
- May 10 – expanded Drought Emergency Proclamation for 41 counties, including Tehama County
 - Directs the State Water Board and California Department of Fish and Wildlife (CDFW) to evaluate minimum instream flows and other actions to protect salmon, steelhead, and other native fish species in critical stream systems
 - Directs State Water Board and CDFW to work with stakeholders on voluntary measures to provide needed protections
 - Directs the State Water Board, in coordination with CDFW to consider emergency regulations to curtail water diversions to provide minimum drought instream flows, if voluntary measures are not sufficient
- July 8 – expanded Proclamation to 9 additional counties and called upon Californians to voluntarily reduce water use by 15 percent

Previous Efforts on Mill and Deer Creeks

- During 2014-2015 drought emergency, State Water Board adopted emergency regulations to protect California and federal Endangered Species Act (ESA) listed salmon and steelhead in Mill, Deer, and Antelope Creeks requiring curtailment if drought emergency bare minimum passage flows not met
- In 2020, CDFW issued a Lake and Streambed Alteration Agreement (LSAA) pursuant to Fish and Game Code section 1602 for the operation and maintenance of Antelope Creek diversions that provides for instream flows on Antelope Creek below Edwards Dam

Outreach and Drought-Related Actions

April – May 2021

- Mill and Deer Creek Watershed meetings with CDFW, National Marine Fisheries Service (NMFS), water users, and State Water Board
- Water Users submitted *Outlines of Key Terms for Drought Year 2021 Actions*

June 2021

- NMFS, CDFW, and State Water Board responses to *Outlines of Key Terms for Drought Year 2021 Actions*, identifying the need for revisions and additional protections

July – August
2021

- NMFS letter to State Water Board recommending drought emergency minimum instream flows for Mill and Deer Creeks (7/30)
- CDFW letter to State Water Board recommending drought emergency minimum instream flows for Mill and Deer Creeks (8/9)

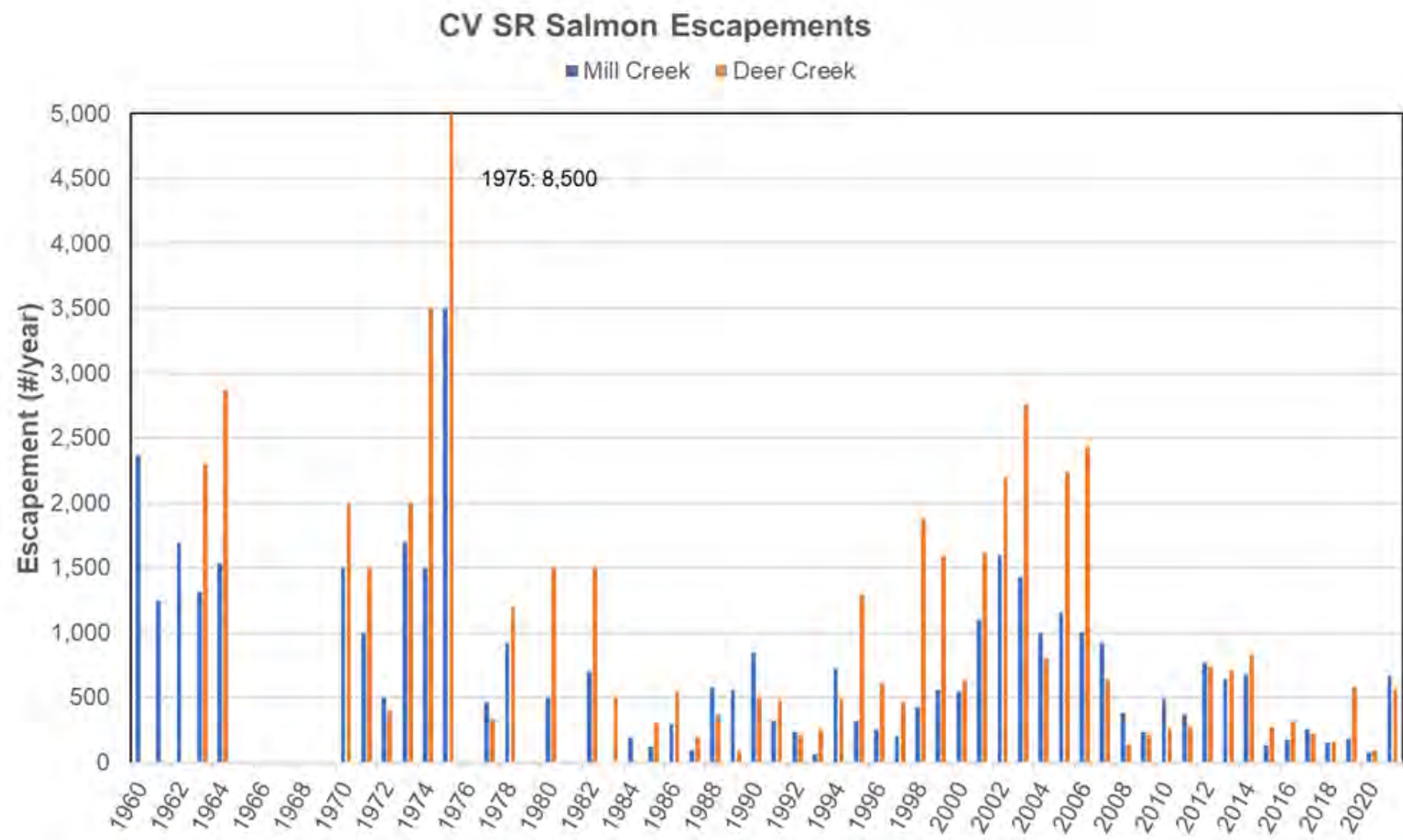
September 2021

- Release of Preliminary Draft Emergency Regulation (9/1)
- Release of Board Materials (9/10)
- Release of Informational Digest and Notice of Proposed Emergency Rulemaking (9/16)

Need for Emergency Regulation

- Due to severe drought conditions, immediate action needed in priority water bodies, including Mill and Deer Creeks, to protect ESA listed salmon and steelhead in light of limited water availability during the drought
- Mill and Deer Creeks have adjudications allocating most supplies without minimum instream flows resulting in very low flows during dry conditions that can impact fish passage
- Need to prohibit inefficient flood irrigation of domestic lawns
- Need to provide for minimum health and safety water supplies
- No agreements for voluntary solutions at this time

Need for Emergency Regulation



Proposed Emergency Regulation Overview

- Amends Title 23, Division 3, Chapter 2, Article 24 of the California Code of Regulations
- Emergency Curtailment to Protect Fish in Mill and Deer Creek Watersheds
- Limitation on Inefficient Domestic Lawn Irrigation
- Local Cooperative Solutions
- Reporting Requirements

Proposed Emergency Regulation

Section 876.5: Emergency Curtailments Due to Lack of Water Availability in Certain Watersheds

- Would establish drought emergency minimum flow levels in Mill and Deer Creeks to provide for migratory passage of adult and juvenile Central Valley spring-run Chinook salmon and California Central Valley steelhead
 - Exception for Minimum Human Health and Safety Needs
 - Exception for Non-Consumptive Uses
 - Exception for Local Cooperative Solutions
- Proposed minimum instream flow levels are consistent with the Mill and Deer Creek bare minimum passage flow requirements adopted under the 2015 emergency regulation

Proposed Emergency Regulation

CCV Steelhead and CV SR Salmon Life Stage Timing

| Life Stage Timing | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | July |
|---|------------|-----|-------------|-------------|-----------|------------|-----|-------------|-------------|------|
| Adult spring-run Chinook (upstream migration) | | | | | Dark Blue | | | Light Blue | | |
| Adult steelhead (upstream migration) | Dark Blue | | Light Blue | Dark Blue | | Dark Blue | | Light Blue | | |
| Adult fall-run Chinook (upstream migration and spawning) | Dark Blue | | Light Blue | | | | | | | |
| Juvenile Chinook (downstream migration) | Dark Green | | Light Green | Light Green | | Dark Green | | Light Green | Light Green | |
| Juvenile steelhead (downstream migration) | Dark Green | | Light Green | Light Green | | Dark Green | | | Light Green | |

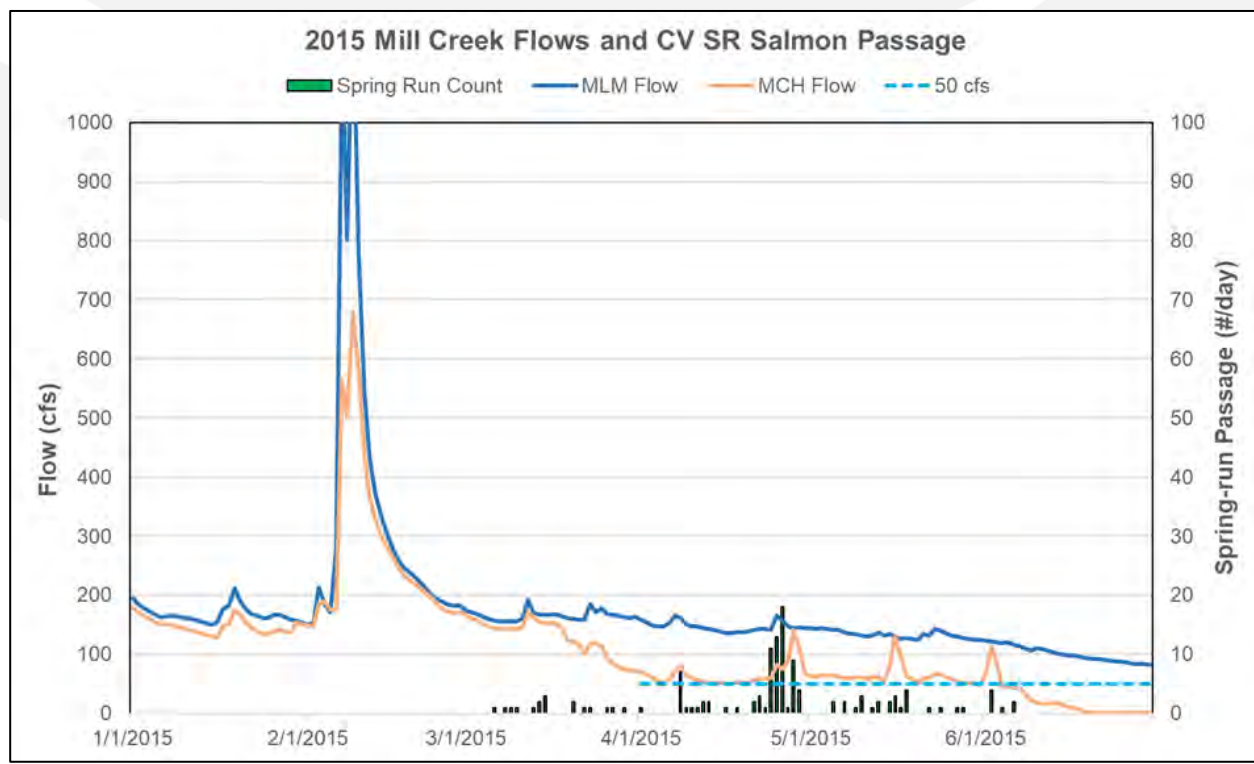
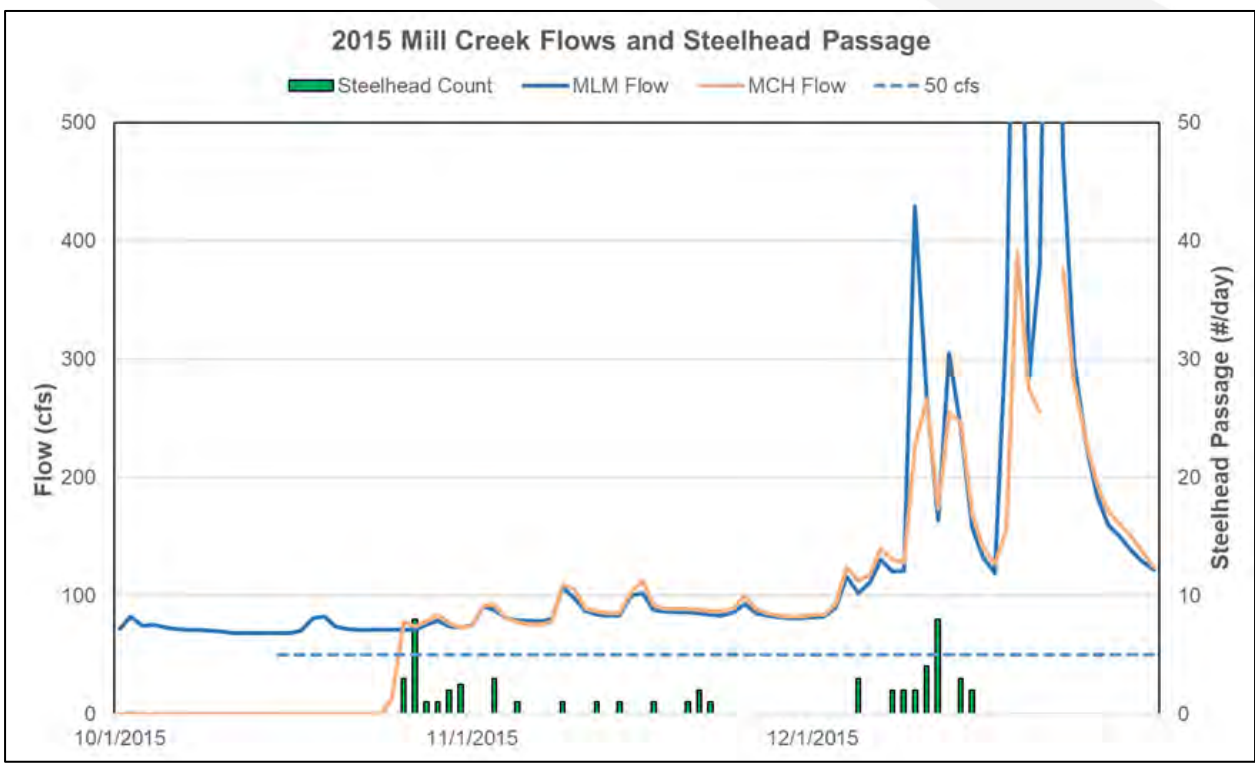
Proposed Emergency Regulation

Section 876.5: Flow Schedule for Mill and Deer Creeks

| Targeted Species/ Life Stage | Flow Requirements | Date Requirements |
|--|--|-----------------------|
| Adult Steelhead | Base flow – 50 cubic feet per second (cfs) or full natural flow, whichever is less | October 15 – March 31 |
| Juvenile Steelhead and spring-run Chinook salmon | Base flow – 20 cfs or full natural flow, whichever is less | October 15 – June 30 |
| Juvenile Steelhead and spring-run Chinook salmon | Pulse flow – 100 cfs or full natural flow, whichever is less | June 1 – June 15 |
| Adult spring-run Chinook salmon | Base flow – 50 cfs or full natural flow, whichever is less | April 1 – June 15 |
| Adult spring-run Chinook salmon | Pulse flow – 100 cfs or full natural flow, whichever is less | April 1 – June 15 |

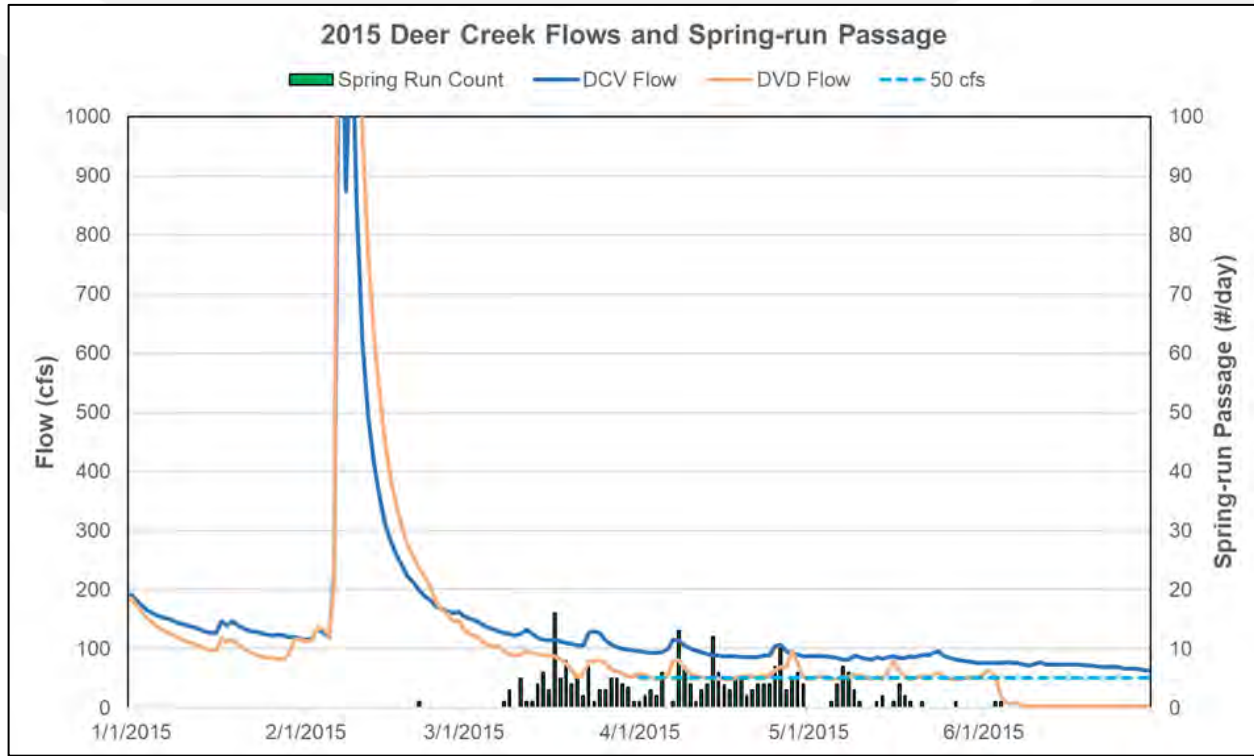
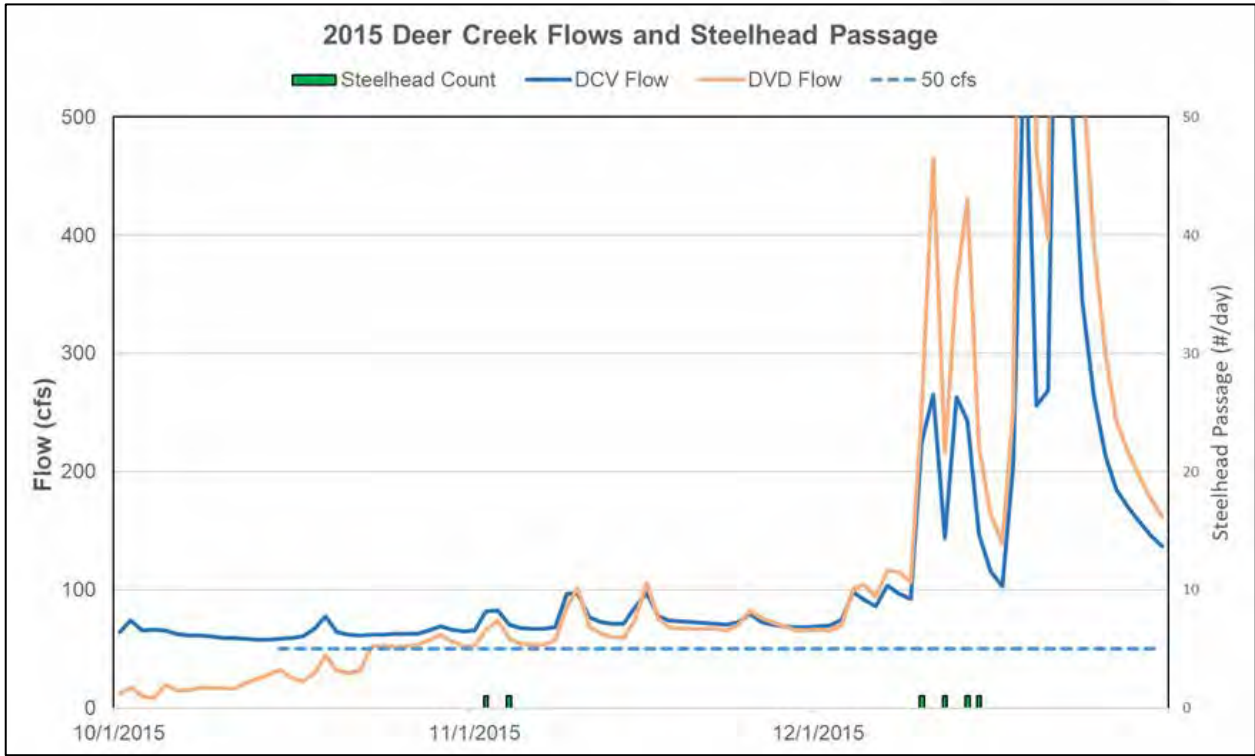
Flow Rates Supported Adult Migration

Mill Creek 2015



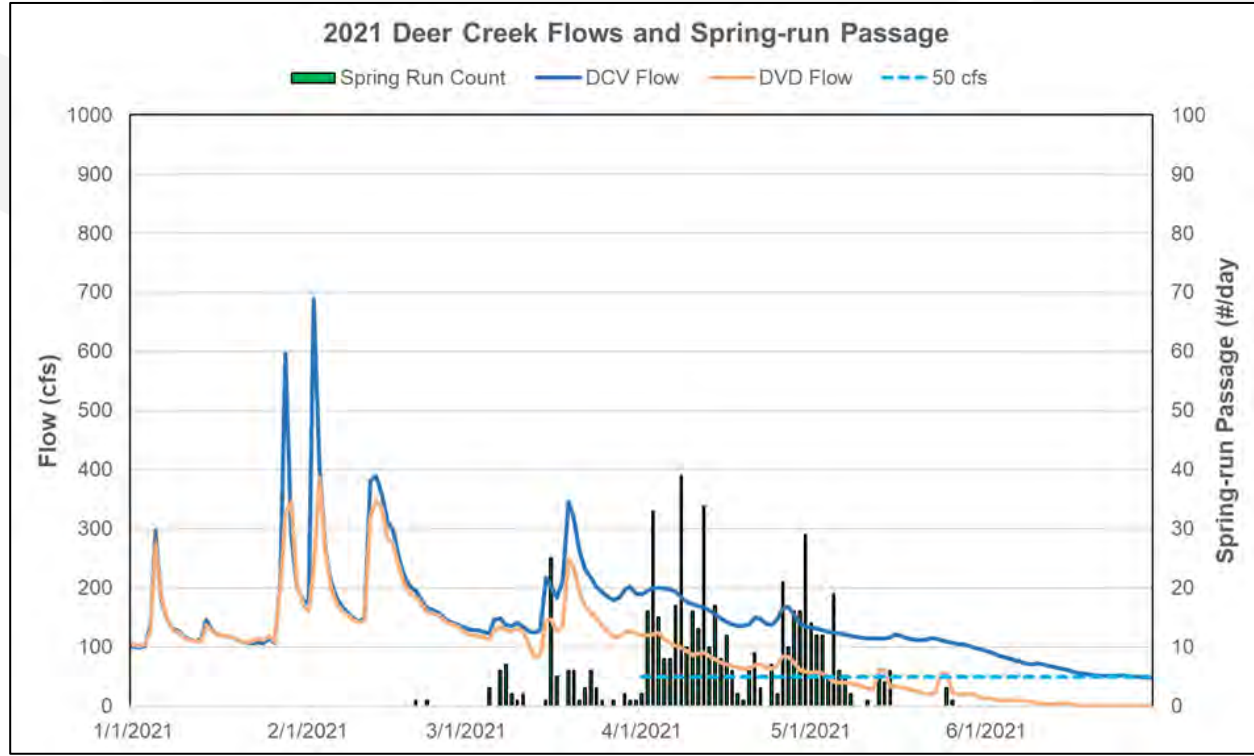
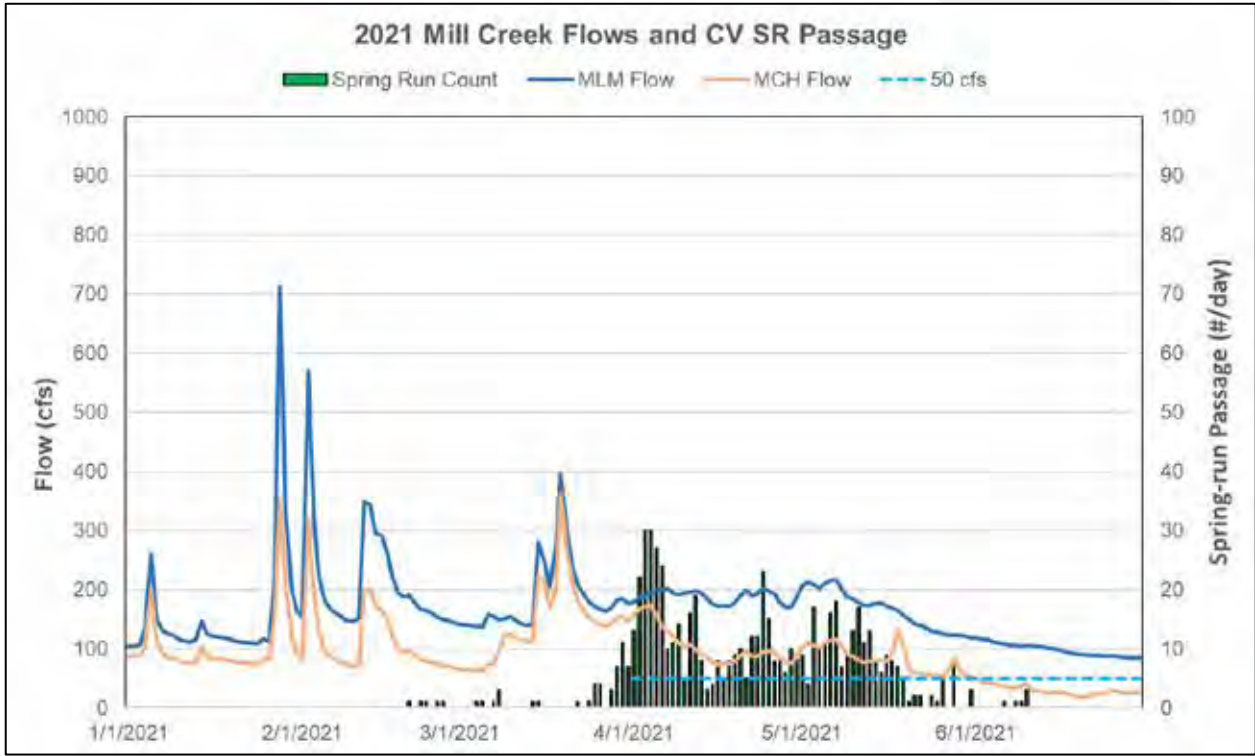
Flow Rates Supported Adult Migration

Deer Creek 2015



Continued Need for Regulation

Mill Creek and Deer Creek 2021 Adult Migration



Recent Instream Flow Studies

- In 2017, CDFW completed instream flow evaluations on Mill and Deer Creeks
- In 2018, CDFW released a draft instream flow criteria report for Mill Creek, which recommended flow criteria needed for the long-term management and viability of salmonids
- The instream flow evaluations identified significantly higher flows on Mill and Deer Creeks than the emergency regulation minimum baseflows
- The proposed emergency regulation minimum flows were determined to be the bare minimum flows necessary during extreme water shortage conditions to protect native fish species, and do not represent optimal passage conditions for Chinook salmon and steelhead

Table 3. Lower Mill Creek flow criteria in cubic feet per second (cfs).

| Month | Water Year Type | | | | |
|--------------|---------------------------------------|-----|--------------|--------------|-----|
| | Critical | Dry | Below Normal | Above Normal | Wet |
| October | < 140 cfs → 80% UF*; ≥ 140 cfs → UF** | | | | |
| November | < 140 cfs → 80% UF*; ≥ 140 cfs → UF** | | | | |
| December | 190 | 190 | 190 | 190 | 190 |
| January | 190 | 190 | 190 | 190 | 190 |
| February | 190 | 190 | 190 | 190 | 190 |
| March | 180 | 260 | 260 | 260 | 260 |
| April | 180 | 260 | 260 | 260 | 260 |
| May | 180 | 260 | 260 | 260 | 260 |
| June | 140 | 180 | 260 | 260 | 260 |
| July 1 - 15 | 30 | 30 | 140 | 140 | 220 |
| July 16 - 31 | 30 | 30 | 30 | 30 | 30 |
| August | 30 | 30 | 30 | 30 | 30 |
| September | 30 | 30 | 30 | 30 | 30 |

Proposed Emergency Regulation

Section 876.7: Limitation on Inefficient Domestic Lawn Irrigation

- Would establish that domestic lawn watering of more than 18.5 gallons per day per 100 square feet would be unreasonable considering the current drought conditions
- Watering rate is consistent with a quantity set forth in California Code of Regulations, title 23, section 697
- Increases water availability for economic and environmental purposes
- Provision would apply throughout the effective period of the emergency regulation

Proposed Emergency Regulation

Section 878.4: Local Cooperative Solutions

- Local cooperative solutions/voluntary programs may be proposed to the Deputy Director of the Division of Water Rights (Deputy Director) as an alternative means of reducing water use to preserve drought emergency minimum flows
- Approval of a cooperative solution would be based on:
 - The continued diversion is reasonable
 - No injury to other users of water
 - Minimum flows identified in the regulation will be met
- Cooperative solutions can be made between diverters and NMFS and CDFW
- Cooperative solutions are subject to public review

Proposed Emergency Regulation

Section 878.1: Minimum Human Health and Safety Needs

- Section already established in Article 24 for curtailment health and safety exceptions
- Proposed emergency regulation includes existing health and safety exception
 - Diversions for minimum human health and safety needs not greater than 55 gallons per person per day may continue after issuance of a curtailment order
 - If more than 55 gallons per person per day is needed, the diverter must submit petition to the Deputy Director

Proposed Emergency Regulation

Section 879: Reporting

- Section already established in Article 24
- Incorporate reporting requirements for section 876.5 into section 879(a)
 - Water right holders and claimants issued initial curtailment orders are required to submit a certification form within seven days
 - Diversions will cease when required to meet emergency minimum flows
 - Diversion are exempt and not subject to curtailment
 - §878, Non-Consumptive Use
 - §878.1, Minimum Human Health and Safety Needs
 - §878.4, Local Cooperative Solutions

Comments Received

Overview of Comment Letters:

11 Total Commenters

- **Bailey and Amy Peyton, Peyton Pacific Properties, LLC**
- **The California Farm Bureau**
- **Keith Bentz, Deer Creek Irrigation District**
- **Linda Pitter, Landowner**
- **Los Molinos Mutual Water Company**
- **The Nature Conservancy**
- **Northern California Water Association**
- **Melinda Brown**
- **Stanford Vina Ranch Irrigation Company**
- **Sue Knox, Landowner**
- **California Cattlemen's Foundation**

Comments Overview – Major Themes

- Both support for and opposition to adoption of regulation
- Local cooperative solutions
- Applicability of minimum flow requirements
- Long-term solutions needed
- Other

Comments – Local Cooperative Solutions

- **Comments:**

- Support for continued cooperation with fishery agencies and use of their expertise
- More effort should be put toward voluntary approaches
- The State has made insufficient effort to develop local cooperative solutions

- **Response:**

- The proposed regulation allows for cooperative solutions even after the adoption of the emergency regulation
- Since April 2021, the State Water Board, CDFW, and NMFS have been in discussion with water users in the Mill Creek and Deer Creek watersheds regarding voluntary actions and so far, there has been no agreement on voluntary actions that can adequately protect threatened species

Comments – Local Cooperative Solutions (continued)

- Spring 2021 voluntary actions and fish counts negate the need for regulation
 - Spring 2021 pulse flows showed clear responses; however, the data suggests that a combination of multiple factors contributed to the increase in escapement, including wetter conditions when adult fish were juveniles, that will not necessarily occur in this drought
 - While past voluntary actions have provided some benefits, the species' long-term populations continue to show declines
- Instream flow regulation would counteract voluntary actions
 - Fishery agencies recommended the development of emergency regulation because current voluntary proposals do not appear to provide adequate protections during this drought for sensitive species

Comments – Minimum Flow Requirements

- Minimum flow requirements are arbitrary and there has been no evidence that the minimum flow requirements are effective
 - Minimum passage flows were developed by fishery biologists from NMFS and CDFW
 - Passage study in lower Deer Creek found multiple sites with ≤ 0.5 foot at 49 cfs, and one location was likely unpassable at < 50 cfs (Kopp and Demko, 2014)
 - Clear evidence from the implementation of emergency minimum flows during the last drought resulted in successful migration
- These watersheds play a critical role in the lifecycle, but Mill and Deer Creek water rights should not be the solution for other needs downstream
 - The minimum flow requirements protect passage only within the lower creek reaches
- Support for the use of CDFW's 2018 flow criteria
 - The proposed flows represent bare minimum flows for passage of ESA species during critical water supply shortage conditions, higher flows may be needed for the long-term support and recovery of these species

Comments – Long-Term Solutions

- Frequent droughts necessitate solutions other than emergency regulations that evaluate reasonably balanced protections
- The State has not made process on long-term drought solutions
 - CDFW's flow criteria, once finalized, can be assessed for the long-term management of salmonid species on Mill and Deer Creeks, including through possible long-term voluntary measures
 - Immediate action is needed now to ensure the protection of sensitive threatened species in light of limited water availability
 - Long-term solutions have been implemented on Antelope Creek

Comments – Long-Term Solutions (continued)

- Water users have proposed physical solutions, but the State has not allowed them to implement the projects
 - Needed information to consider and address potential concerns with physical solutions (low-flow channel construction) have not been submitted to CDFW, NMFS, or the State Water Board
 - No evidence of required environmental review or permitting has been presented
 - Projects in the lower creeks would likely impact fall-run Chinook salmon spawning habitat
- The State should pay for restoration projects
 - The State has multiple financial assistance programs that proponents can pursue funding from for projects
 - More information on the State Water Board's financial assistance programs is available: https://www.waterboards.ca.gov/water_issues/programs/grants_loans/

Additional Comments

- The State Water Board has no authority to act in accordance with the requirements of ESA laws
 - The State Water Board is coordinating with CDFW and NMFS to provide the water quality conditions to protect listed species. Protection of fish, including listed species, is a beneficial use of water and can be considered as part of reasonable use, which extends to public trust uses.
 - Fish and Game Code section 2055 states, “The Legislature further finds and declares that it is the policy of this state that all state agencies, boards, and commissions shall seek to conserve endangered species and threatened species and shall utilize their authority in furtherance of the purposes of this chapter.”
- General concern that water will be unavailable for livestock and irrigation
 - For the past century, monthly average of daily unimpaired flow has been ≥ 70 cfs in Mill Creek and ≥ 60 cfs in Deer Creek in the months of October – June suggesting that some water will be available for diversion throughout the curtailment period that could be purchased or transferred for critical needs, water users may also have access to groundwater.

Next Steps and Schedule – Overview of Regulatory Process and Schedule

Board Meeting
September 22

- Staff presentation on overview of regulation
- Public comments
- Board consideration of proposed emergency regulation

Submittal to OAL
September 23-24

- OAL notices a 5 calendar day comment period
- OAL reviews package within 10 calendar days of submittal
- Upon approval, OAL submits to Secretary of State

Regulation Effective
October 4-9

- Release initial curtailment
- Continue coordination with water users
- Continue cooperative solution discussions
- Monitor conditions

OAL – Office of Administrative Law

Resources – Contact the State Water Board

- **Email:** DWR-MillDeerDrought@waterboards.ca.gov
- **Webpage: Mill Creek and Deer Creek Drought Response**
 - https://www.waterboards.ca.gov/drought/mill_deer_creeks/
- **Subscribe:** State Water Board Email Subscription list titled “Mill Deer Drought” under “Water Rights” at:
https://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.html