

Central Valley Spring-run Chinook Salmon Population Monitoring Mill and Deer Creeks



Spring 2025

California Department of Fish and Wildlife

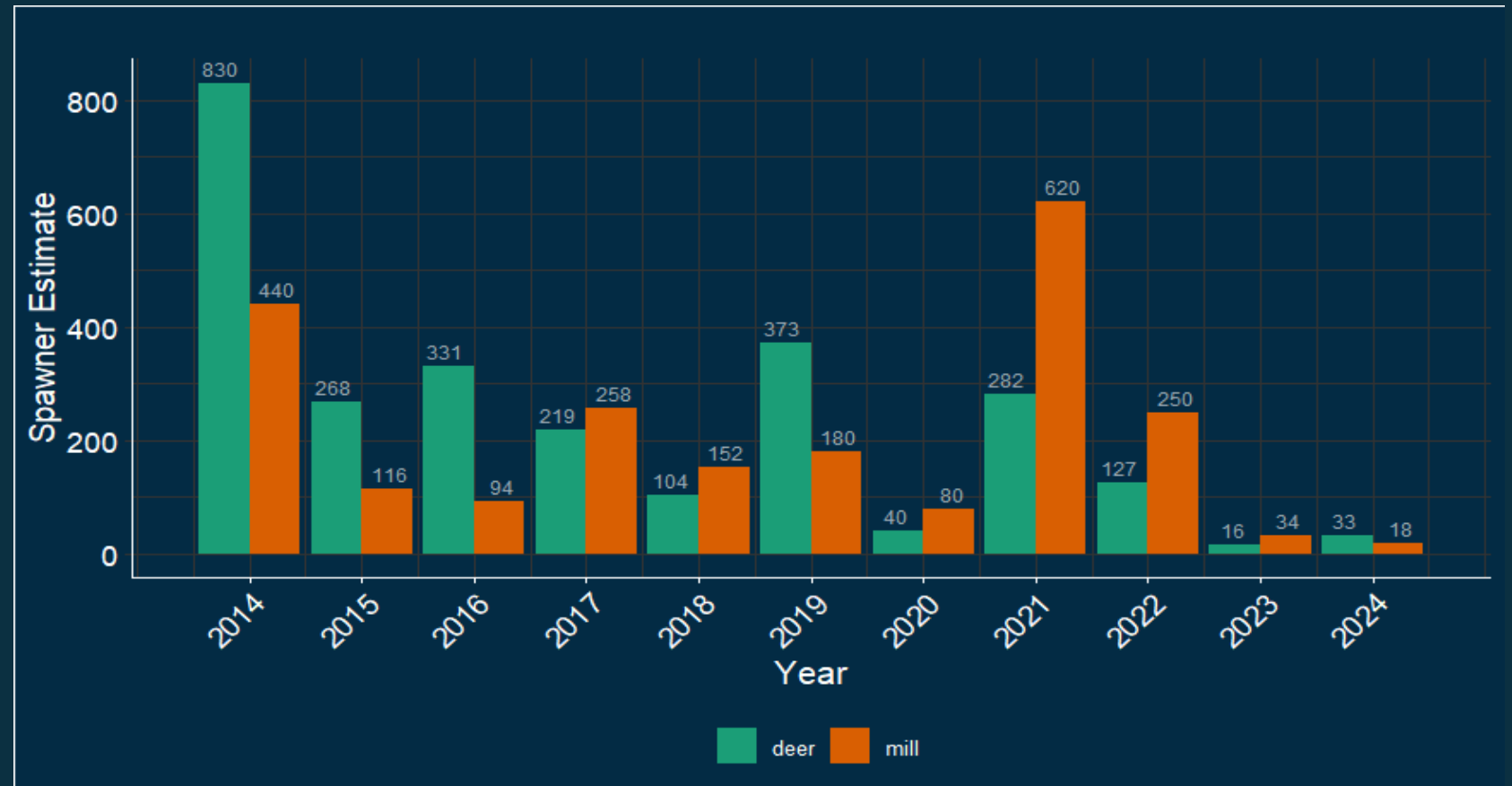
Mill and Deer Creek SRCS

- Mill and Deer Creek SRCS independent populations of wild CV SRCS
- Two of the three remaining (Core 1) genetic lineages of wild SRCS with Mill, Deer, Butte Creeks.
- Populations in Deer, and Mill creeks have seen statistically significant declining trends in abundance for the last ten years.



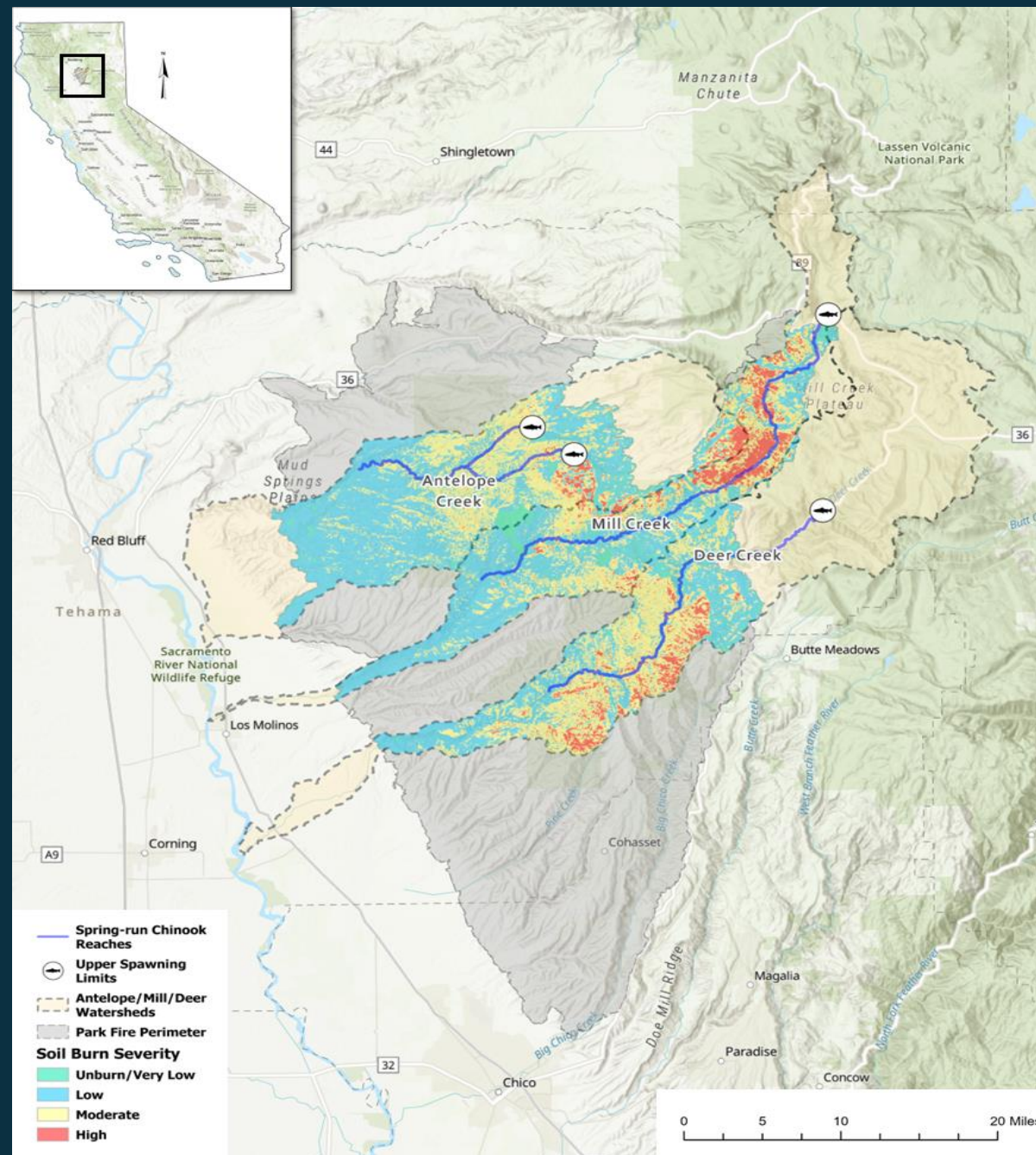
Mill and Deer Creek Adult SRCS Spawner Population

- SRCS adult population data collected through passage/video monitoring and spawner surveys
- In 2023 Core 1 populations suffered cohort collapse/failure, with estimated returns of 16 fish in Deer Creek, 34 in Mill Creek
- Monitoring results in 2024 indicated a second cohort collapse/failure with population estimates of **33** fish in Deer, and **18** in Mill Creeks.



Park Fire and 2024 SRCS Monitoring

- Park Fire started July 24, 2024, and burned 429,603 acres.
- Nearly 100% Mill Creek and 70% of Deer Creek SRCS spawning/holding habitat is within by Park Fire perimeter
- 24 (of 33) SRCS Deer Creek up stream of fire perimeter



Park Fire and Winter 2024/Spring 2025 Juvenile Monitoring

- Winter AR events on post Park Fire burn scar in 2024/2025 resulted in numerous high flow events, debris and sediment in Mill and Deer Creeks
- Feb 5, 2025, flow in Deer Creek reached 17,510 CFS, and Mill Creek reached 15,086 CFS
- To date – no BY 24 Chinook salmon juveniles have been sampled in Mill Creek
- 6 BY 24 Chinook salmon juveniles sampled in Deer Creek





Emergency Conservation Actions

- 2023 Captive Broodstock collection in Mill, Deer, Butte as well as Battle and Clear Creek and transferred to UCD CABA.
- Currently there are 300 fish from Mill, 259 Butte, and 98 Deer Creek held as CBS at CABA. CDFW continues to collect SRCS juveniles from the wild in an effort to preserve genetic diversity within these populations in the event of a third cohort failure.
- USFWS held unclipped SRCS at LSNFH, four adult SRCS were spawned, and ~ 10,000 eyed eggs were transferred to CDFW.
- SRCS eggs were implanted using in-stream incubators (egg boxes) in Clear Creek as a pilot study for future supplementation and/or reintroduction efforts for Core 1 populations.



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