



CAL FIRE FIA Temporal Intensification

Update for the California Board of Forestry and Fire Protection

January 22, 2025



CAL FIRE FIA TEMPORAL INTENSIFICATION SUMMARY

What is FIA?

The Nation's Forest Census.

A network of permanent forest inventory plots utilizing consistent sampling protocols, data management, and reporting.

- All forest lands
 - Nationally
 - U.S. territories
 - U.S. affiliated islands
- All ownerships public and private

FIA Plot Sampling

- 1 plot samples 1 acre
- 1 plot per ~6,000 acres
- 1 panel represents 10% of all plots in California, i.e., 10-year remeasurement cycle
- States may contribute funds to “buy down” the cycle length and/or add plots to the sampling grid
- In 2021, California “bought down” the remeasurement cycle to 5-years

CAL FIRE FIA Temporal Intensification

- Partnership with USFS PNW-FIA for support and staffing
 - FIA Partnership initiated in 2020
 - Current collection agreement through March 2027
- USFS PNW-FIA provides data management and support for data analysis
- USFS PNW-FIA manages QA/QC program, including certification of new contractors and QA/QC field inspections throughout a season
- CAL FIRE manages 7 contract areas for intensified FIA data collection crews
 - In progress: Contract amendments extending through 2027 field season

Intensification Summary

- 2020: 70-plot pilot season
- 2021 – 2022: full implementation
 - Covid-19 and 2021 severe wildfire season
 - 5-year remeasurement cycle delayed
- 2023-2024: 3 new data collection contracts
 - 19 crew leaders certified

Summary of Challenges

- Staffing shortages
 - Landowner contacts
 - Field inspections
 - Data collection production
- Data support
- Data rollout

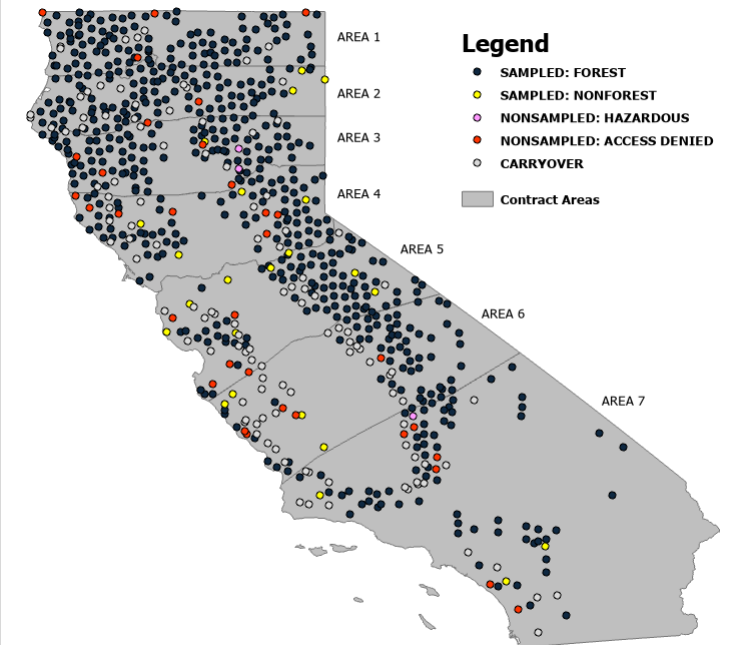
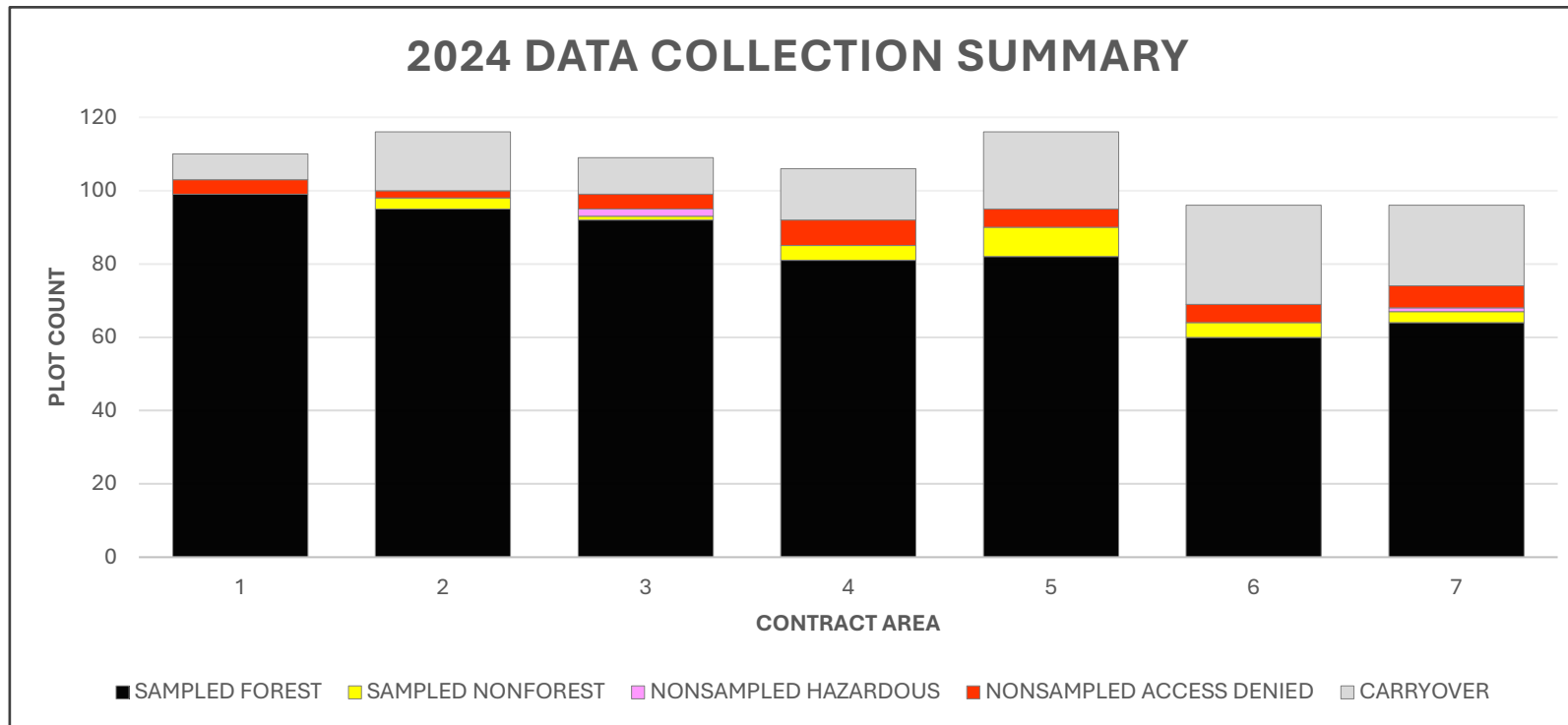
California FIA Contract Areas



2024 DATA COLLECTION PRODUCTION SUMMARY

Total plots = 749 (Carryover from 2023 = 105, Inventory Year 2024 = 644)

SAMPLED FOREST	SAMPLED NONFOREST	NONSAMPLED HAZARDOUS	NONSAMPLED ACCESS DENIED	CARRYOVER
573 (77%)	23 (3%)	3 (<1%)	33 (4%)	117 (16%)



2024 QUALITY ASSURANCE/QUALITY CONTROL SUMMARY

Statewide

596 sampled plots

Field inspection rate goal: 5%

Total inspections: 27

- Average: 94.8%
- Max: 99.8%
- Min: 85.7%

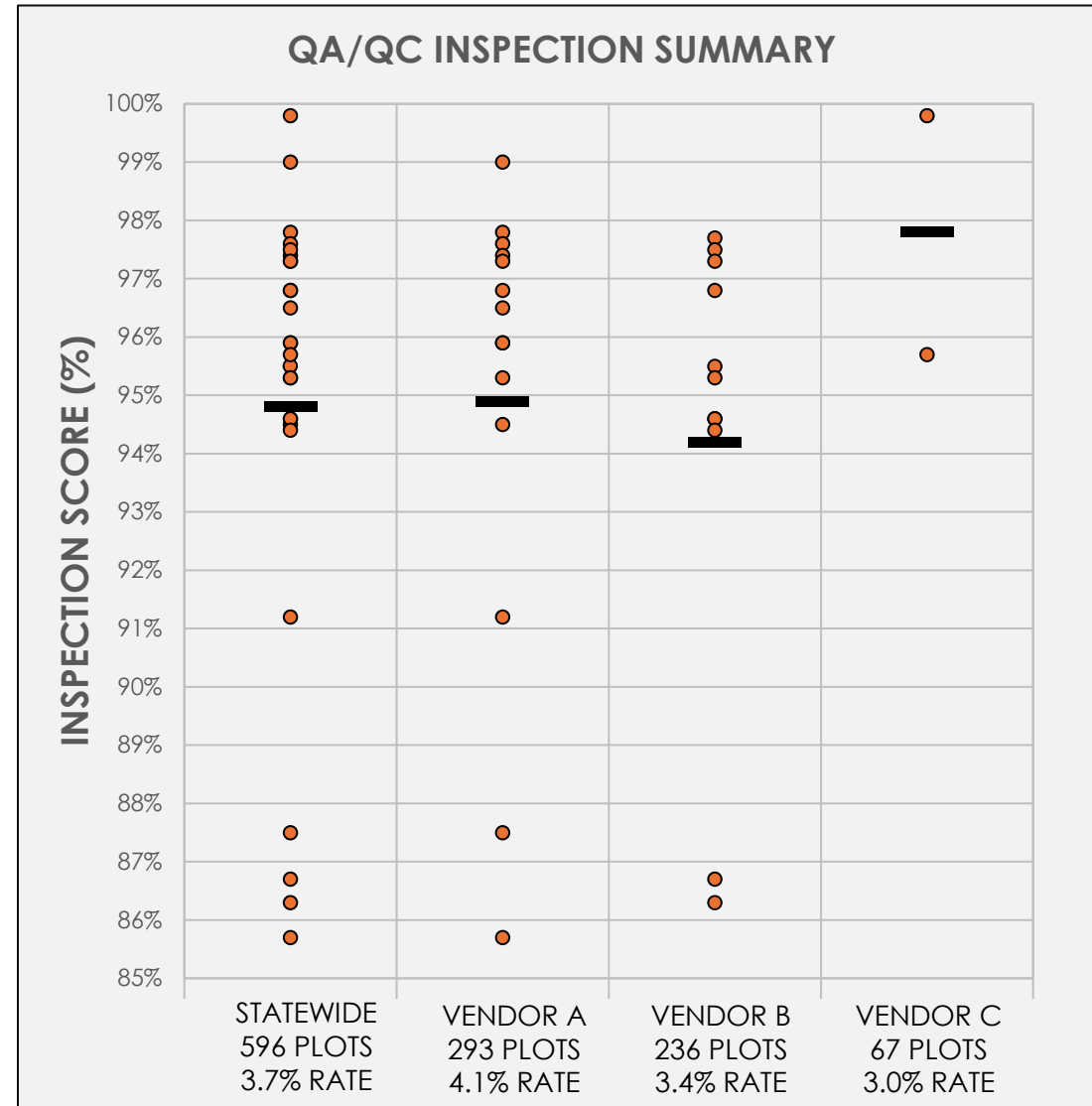
Certification inspections: 5

- Average: 94.9%
- Max: 97.3%
- Min: 91.2%

Field inspections: 22

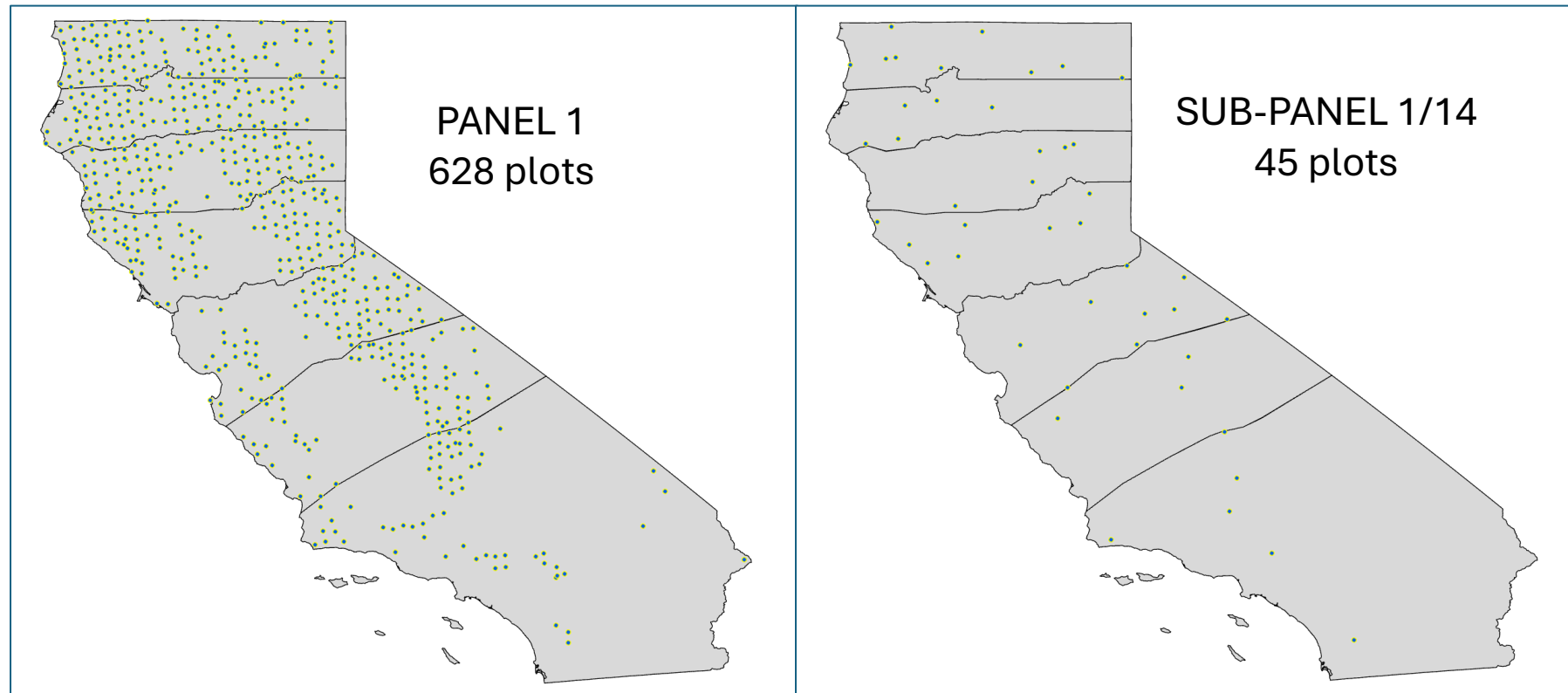
Inspection rate: 3.7%

- Average: 94.8%
- Max: 99.8%
- Min: 85.7%



2025 SUB-PANEL SAMPLING STRATEGY

- Provides a spatially unbiased, scalable sampling strategy
- Allows for flexibility based on available resources and capacity
- Increasing the number of sub-panels reduces sampling error
- CAL FIRE's temporal intensification partnership allows 2x plot sampling
- Change estimates can be produced in 5 years for California (vs. 10-years)
- In partnership with CAL FIRE, PNW-FIA is positioned to lead in reporting under the sub-panel strategy



Thank you

Gerad Dean

Forest Inventory and Monitoring Specialist

Fire and Resource Assessment Program

Email: Gerad.Dean@fire.ca.gov



Fire and Resource Assessment Program
California Department of Forestry and Fire Protection