Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Public Safety Radio Strategic Planning Committee
November 18, 2025

Item 1: Welcome, Call to Order, and Roll Call

Cal OES **(PSRSPC CHAIR)**
California Highway Patrol
Department of Corrections & Rehabilitation
Department of Technology
Emergency Medical Services Authority
Department of Finance
Department of Fish & Wildlife
Department of Forestry & Fire Protection
Department of Justice
Military Department
Department of Public Health
Department of Parks & Recreation
Department of Transportation
Department of Water Resources

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 2: Approval of Previous Minutes

PSRSPC – August 19, 2025

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 3: Public Comments for Matters on the Agenda

Public Comment for matters on the agenda.

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 4: Legislative Update

Cal OES Legislative and External Affairs will provide information regarding legislation that impacts Emergency Communications in California

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 5: CRIS Design Concept

Consistent with State Administrative Manual (SAM) Section 4530, PSC has developed and implemented CRIS to accommodate multiple state agencies.

- With CRIS the State has the ability to:
  - Leverage purchasing power as a single entity
  - Maximize the use of infrastructure
  - Reduce redundant and duplicative networks

Purpose:

- Statewide P25 Phase II (TDMA) trunked radio system providing interoperable voice communications for public safety agencies.
- Designed to enhance interoperability among state, local, and federal partners during day-to-day operations and major incidents.

System Overview:

- Dual-core architecture for reliability and continuity
- Primary Core – Sacramento
- Backup Core – Los Angeles
- RF sites across California connected via the state microwave network with redundant backhaul paths

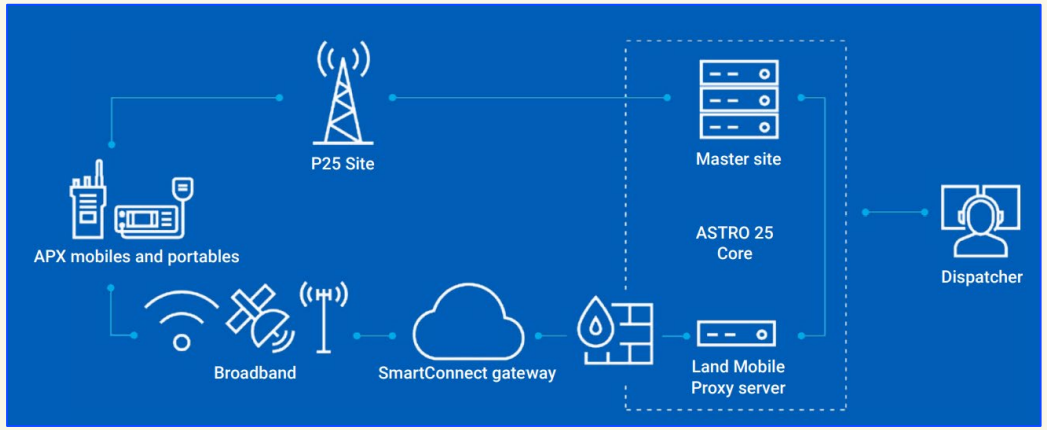
Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 6: Smart Connect Integration

An intelligent connectivity feature that allows APX P.25 radios to automatically switch between LMR and broadband networks (LTE, WiFi, or Satellite).

Functionality:

- **Dual-Mode Operation**: Radios with SmartConnect automatically switch to broadband when LMR coverage is lost, maintaining the same talkgroup and identity.
- **Broadband Fallback**: Ensures better connectivity in weak or no-LMR-coverage areas (indoors, remote or underdeveloped areas) by routing voice over LTE, WiFi, or Satellite.
- **Interoperability Support**: Keeps CRIS talkgroups active even when users move outside LMR coverage.
- **Seamless Switching**: Automatically transitions between LMR and broadband with no user action required, prioritizing LMR when available if the user desires.

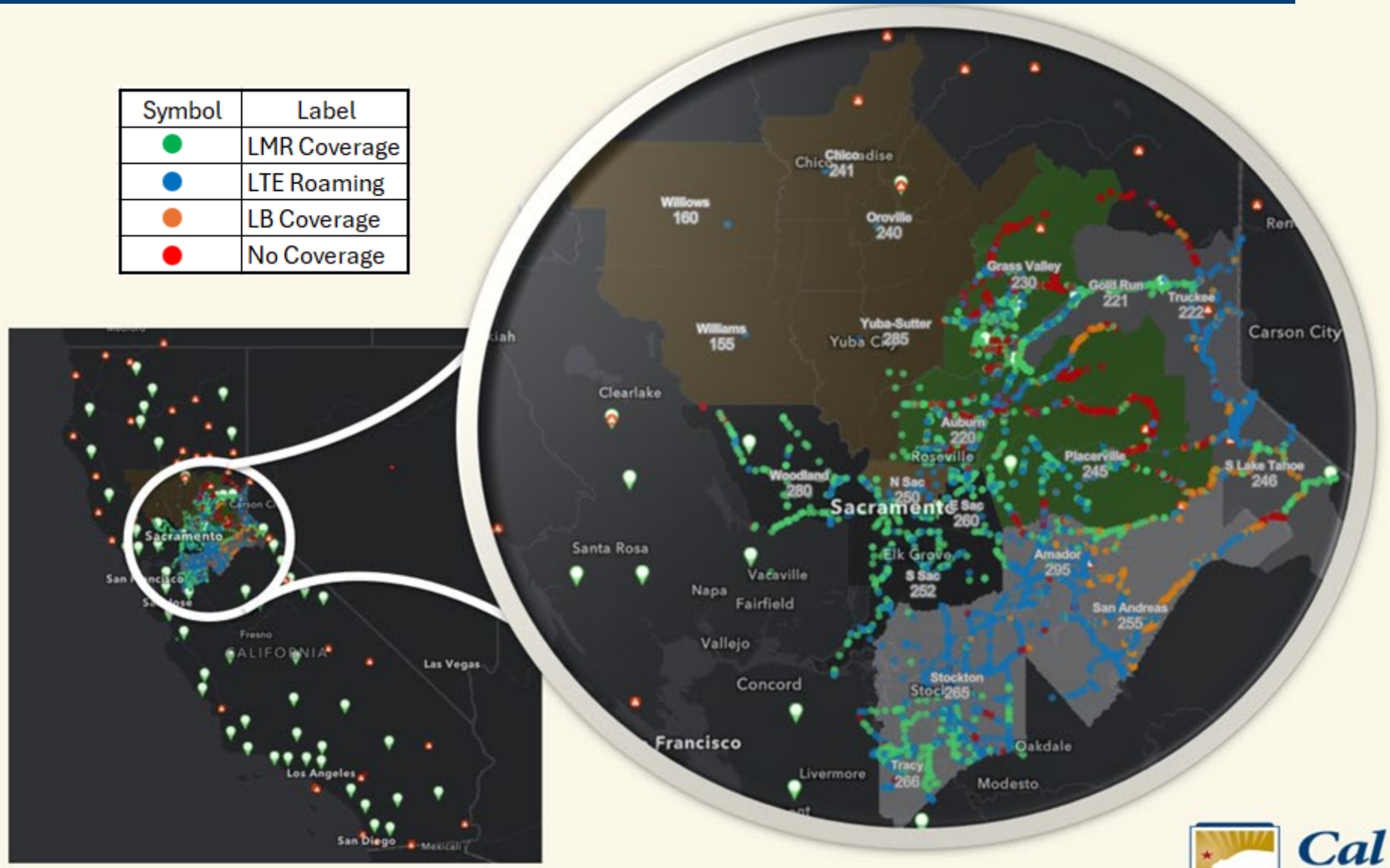


Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 6: Smart Connect Integration (cont.)

- CHP shared a coverage map showing areas with poor or unreliable CRIS service.
- PSC correlated the CHP data with internal coverage maps and conducted field surveys to validate findings.
- CHP results mostly matched PSC's expectations.

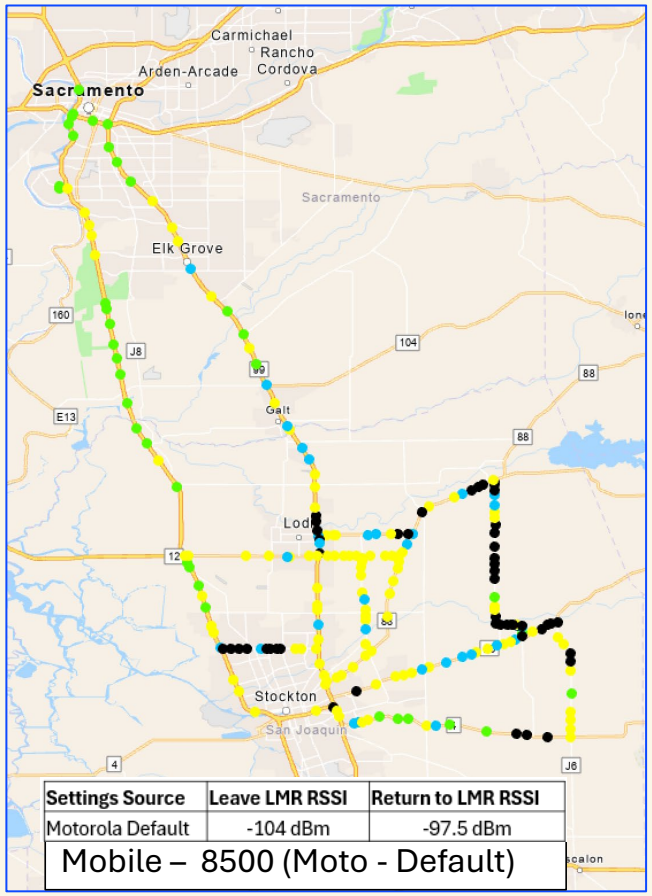
Symbol	Label
	LMR Coverage
	LTE Roaming
	LB Coverage
	No Coverage



Cal OES
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

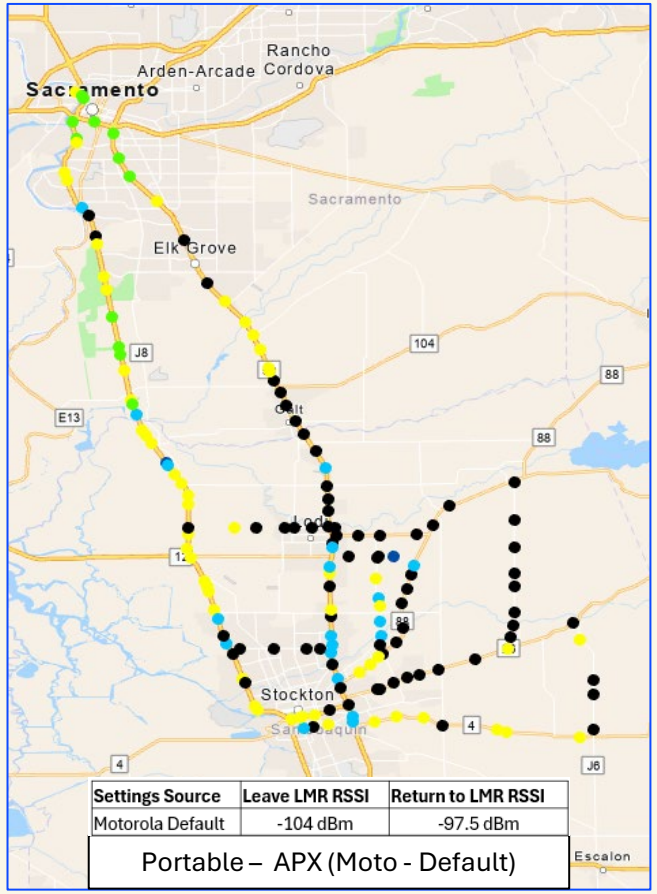
Item 6: Smart Connect Integration (cont.)

- Each point represents a PTT call with its corresponding RSSI signal level*
- All PTT calls were successfully completed**
- Motorola receiver sensitivity specification is -121 to -123 dBm depending on band.



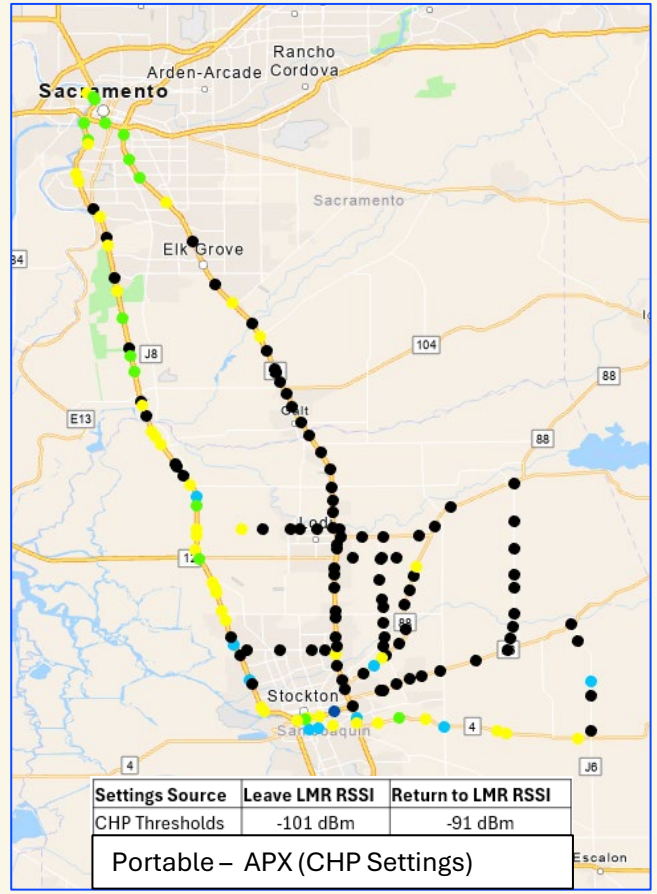
Settings Source	Leave LMR RSSI	Return to LMR RSSI
Motorola Default	-104 dBm	-97.5 dBm

Mobile – 8500 (Moto - Default)



Settings Source	Leave LMR RSSI	Return to LMR RSSI
Motorola Default	-104 dBm	-97.5 dBm

Portable – APX (Moto - Default)



Settings Source	Leave LMR RSSI	Return to LMR RSSI
CHP Thresholds	-101 dBm	-91 dBm

Portable – APX (CHP Settings)

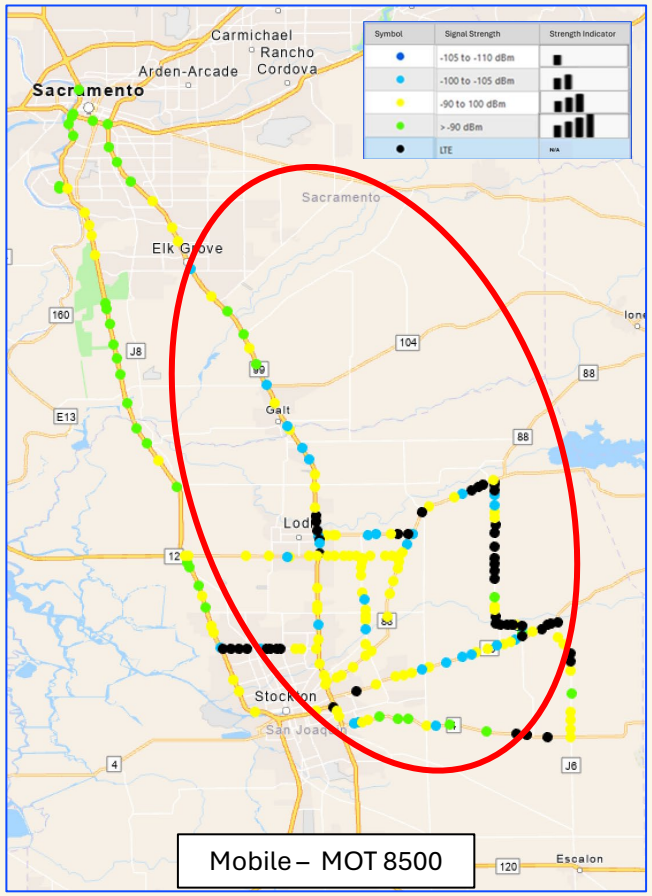
Symbol	Signal Strength	Strength Indicator
●	-105 to -110 dBm	
●	-100 to -105 dBm	
●	-90 to 100 dBm	
●	> -90 dBm	
●	LTE	N/A

*RSSI = Received Signal Strength Indicator on downlink.
**Portable radio measurements were taken from within the vehicle.

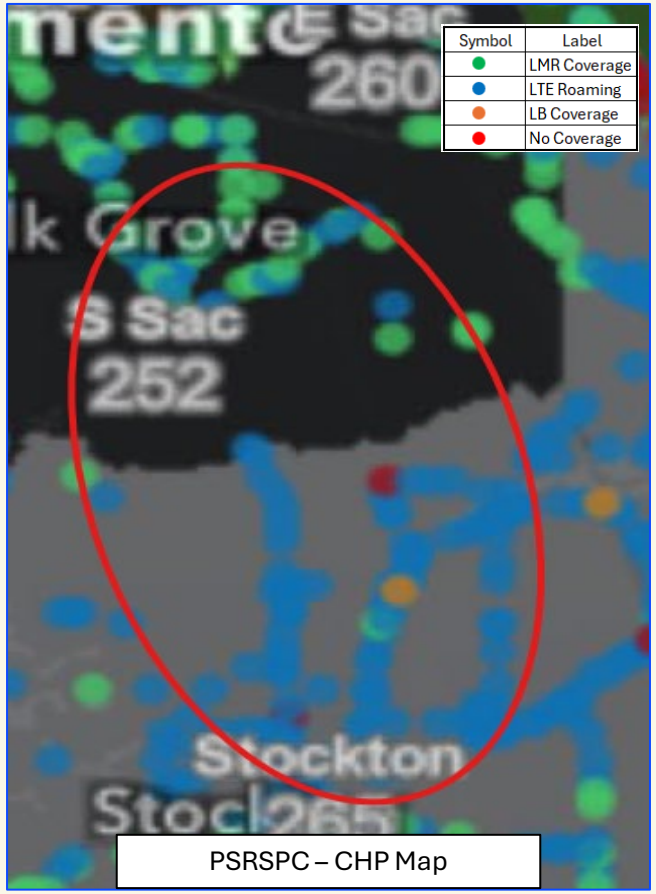
Cal OES
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

Item 6: Smart Connect Integration (cont.)

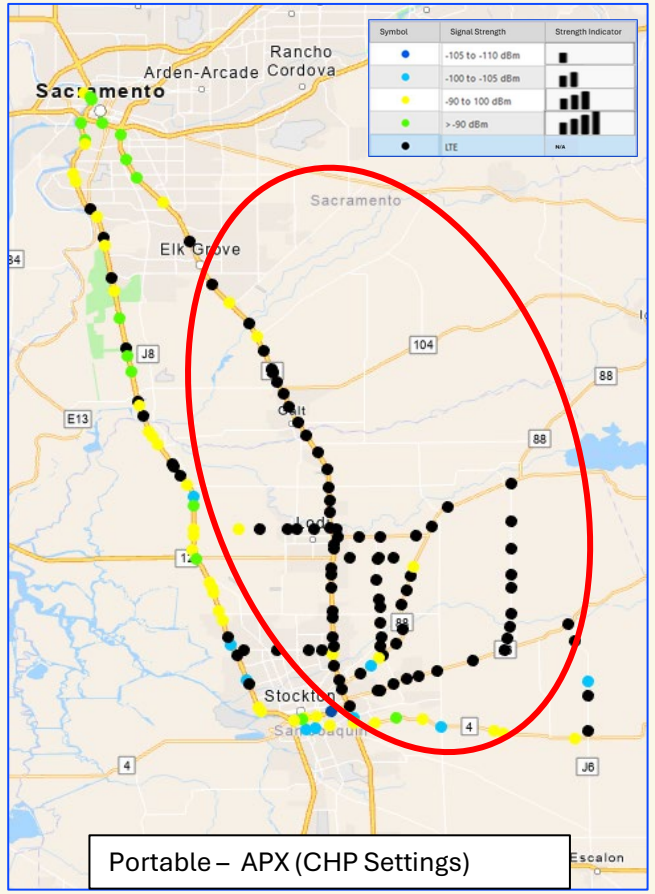
- Each point represents a PTT call with its corresponding RSSI* signal level.
- All PTT calls were successfully completed.**



Mobile – MOT 8500



PSRSPC – CHP Map



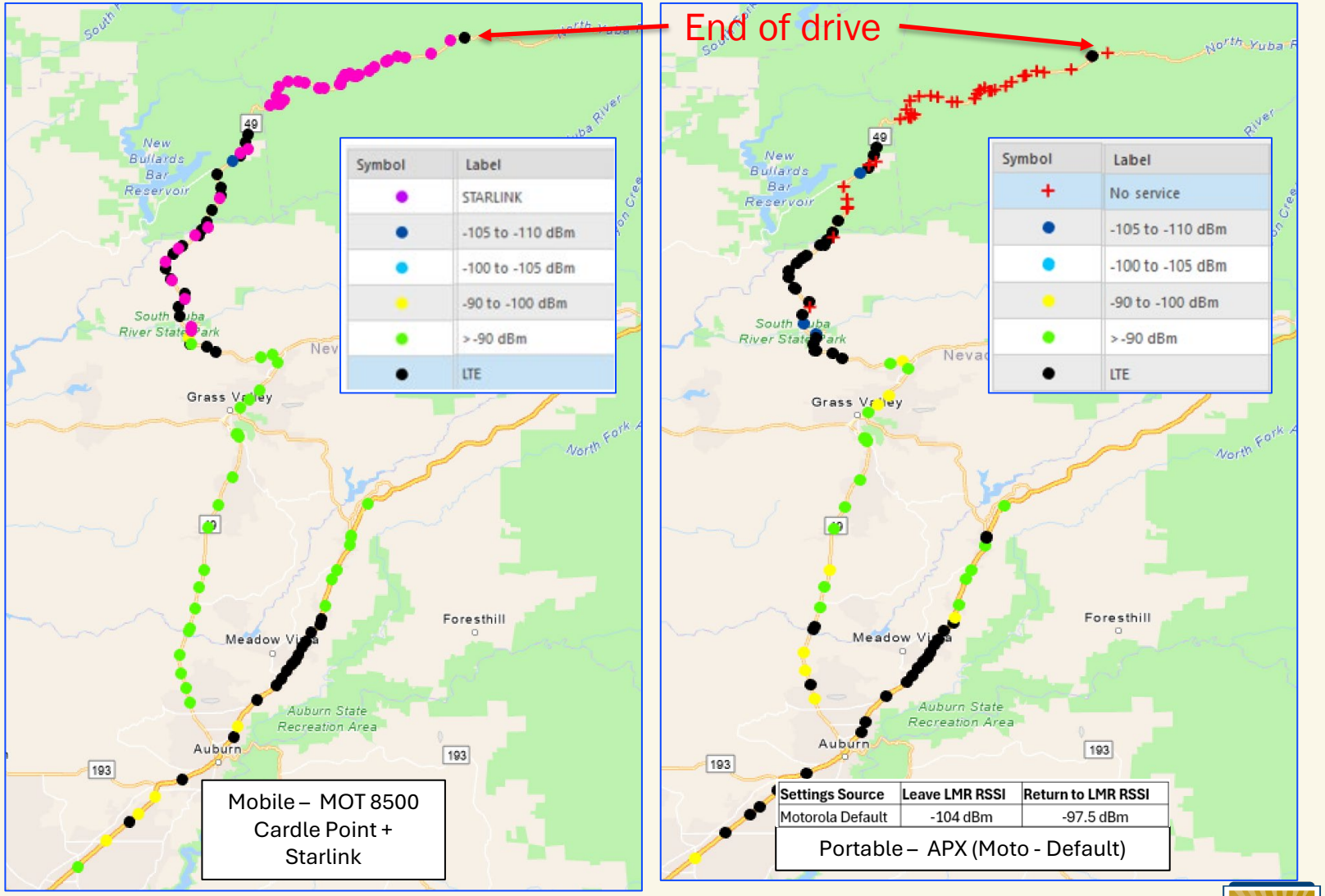
Portable – APX (CHP Settings)

*RSSI = Received Signal Strength Indicator.
**Portable radio measurements were taken from within the vehicle.

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

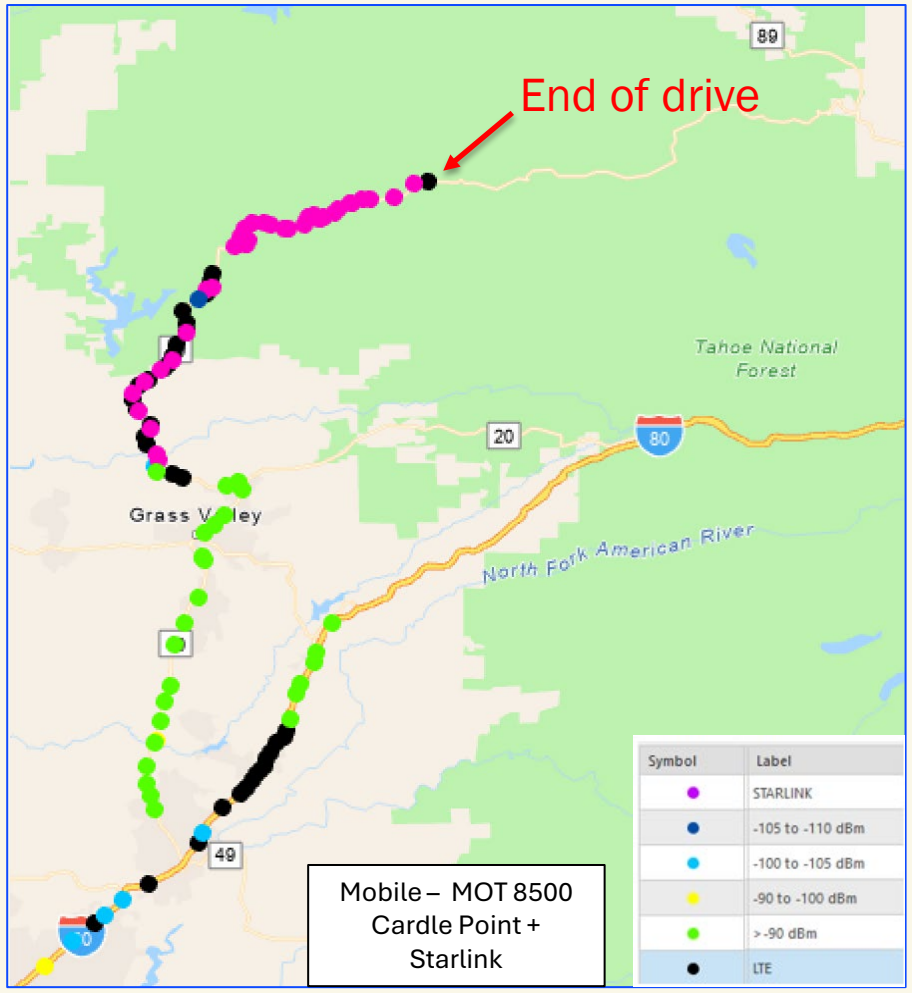
Item 6: Smart Connect Integration (cont.)

- We tested SmartConnect over satellite
- Starlink equipment was integrated with the Motorola mobile radio to test roaming over satellite

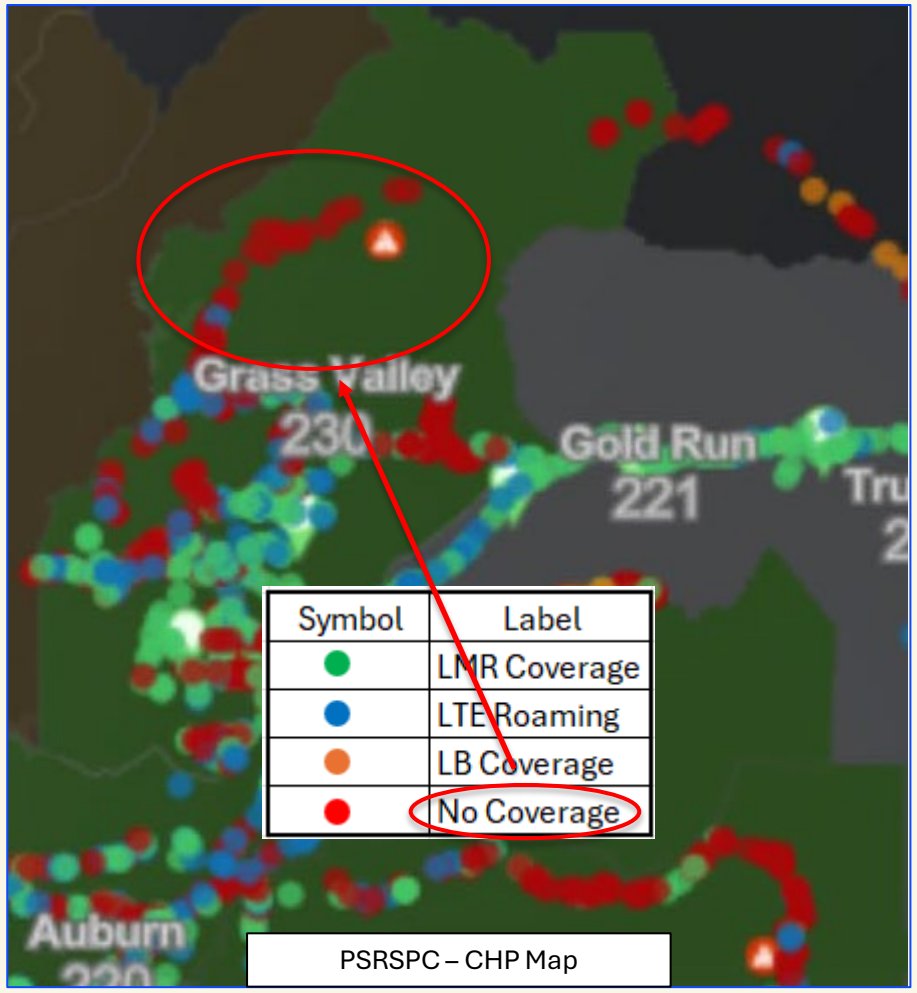


Cal OES
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

Item 6: Smart Connect Integration (cont.)



Mobile – MOT 8500 Cardle Point + Starlink



PSRSPC – CHP Map

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 7: Radio Signal Measurement Methodology

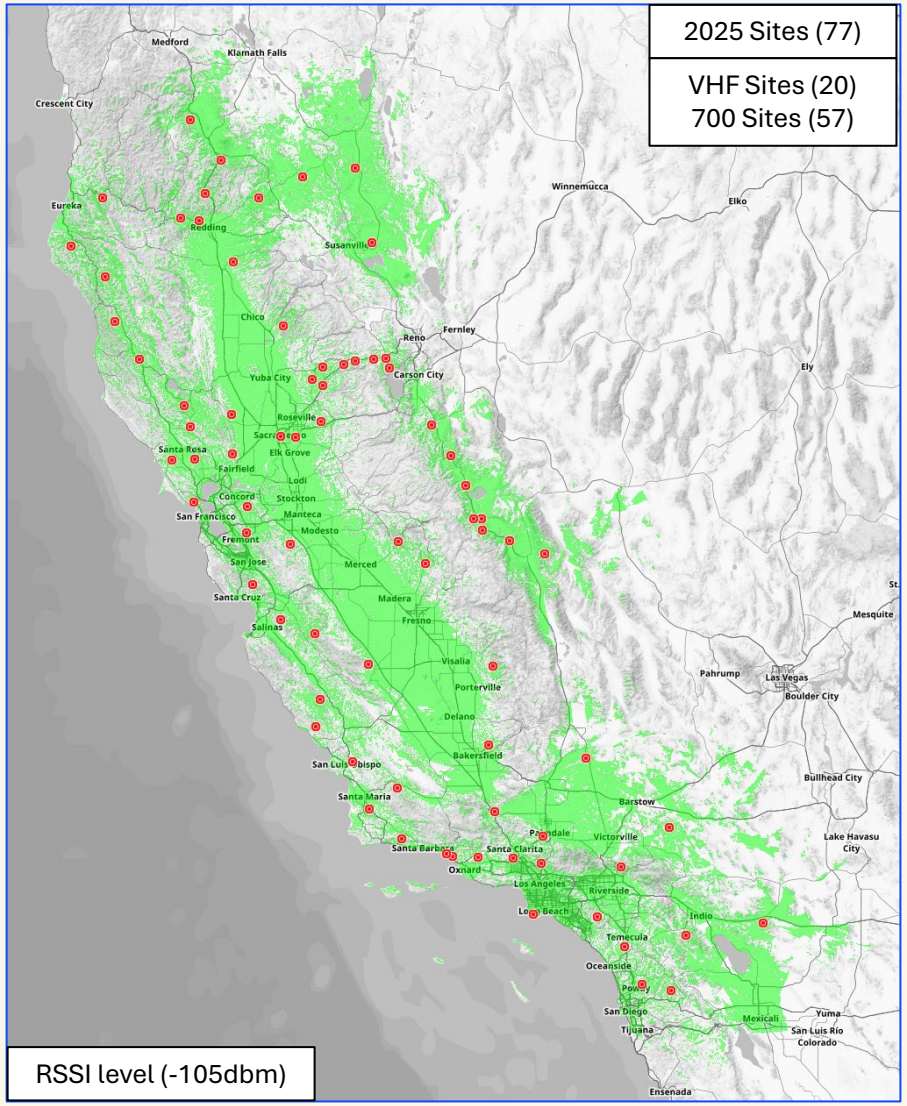
- Three different Motorola radios were used to evaluate existing CRIS coverage in sample areas identified by CHP as having poor CRIS coverage or frequent roaming on LTE.

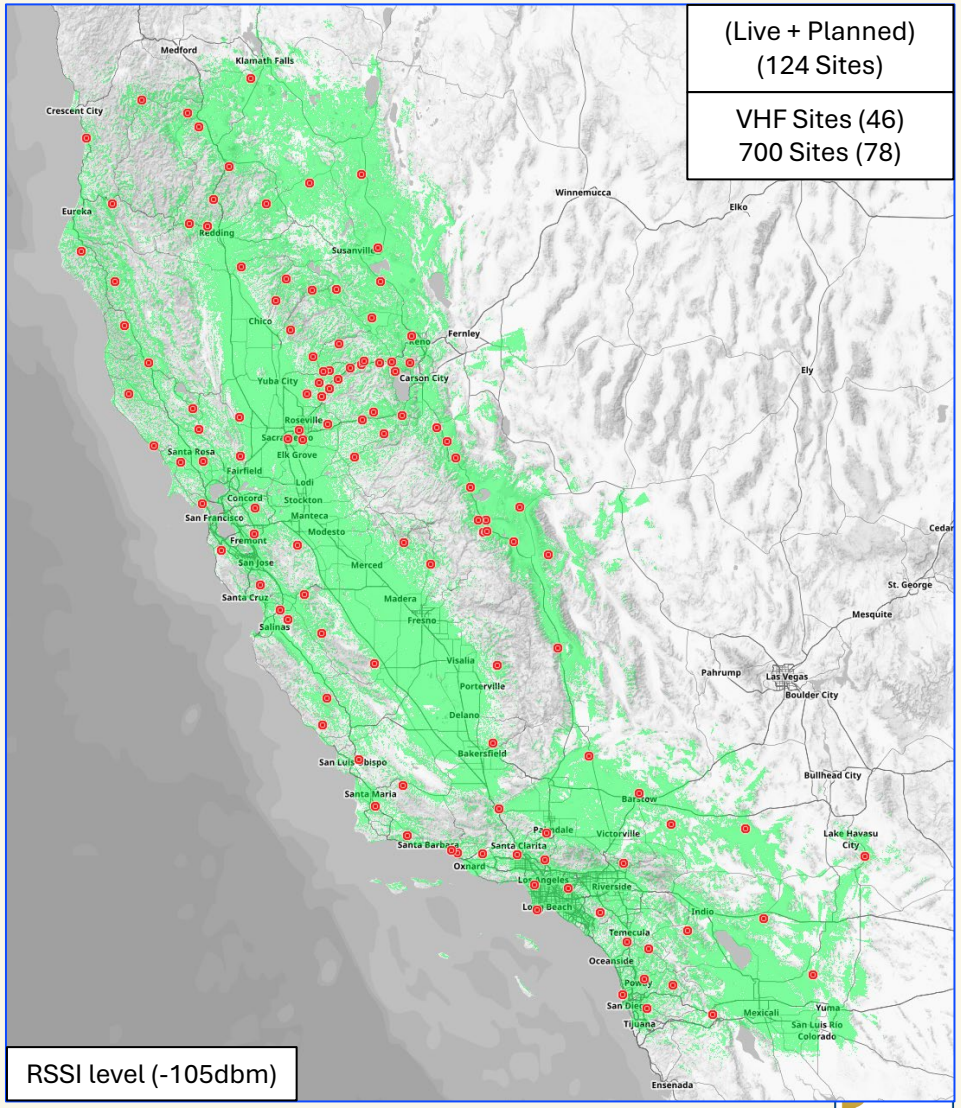
- Test setup included:
  - Motorola 8500 Mobile Radio + Cradlepoint (Motorola SmartConnect settings)
  - Motorola APX NEXT Portable (Motorola SmartConnect settings)
  - Motorola APX NEXT Portable (CHP SmartConnect settings)

- PTT calls were placed on all three radios along designated test routes, verified for voice quality and successful completion from CALOES PSC HQ. GPS and corresponding RSSI levels were recorded and mapped for analysis.

- Cradlepoint and Starlink equipment was integrated with the mobile radio to validate SmartConnect in limited coverage areas.

Item 8: CRIS Coverage Maps





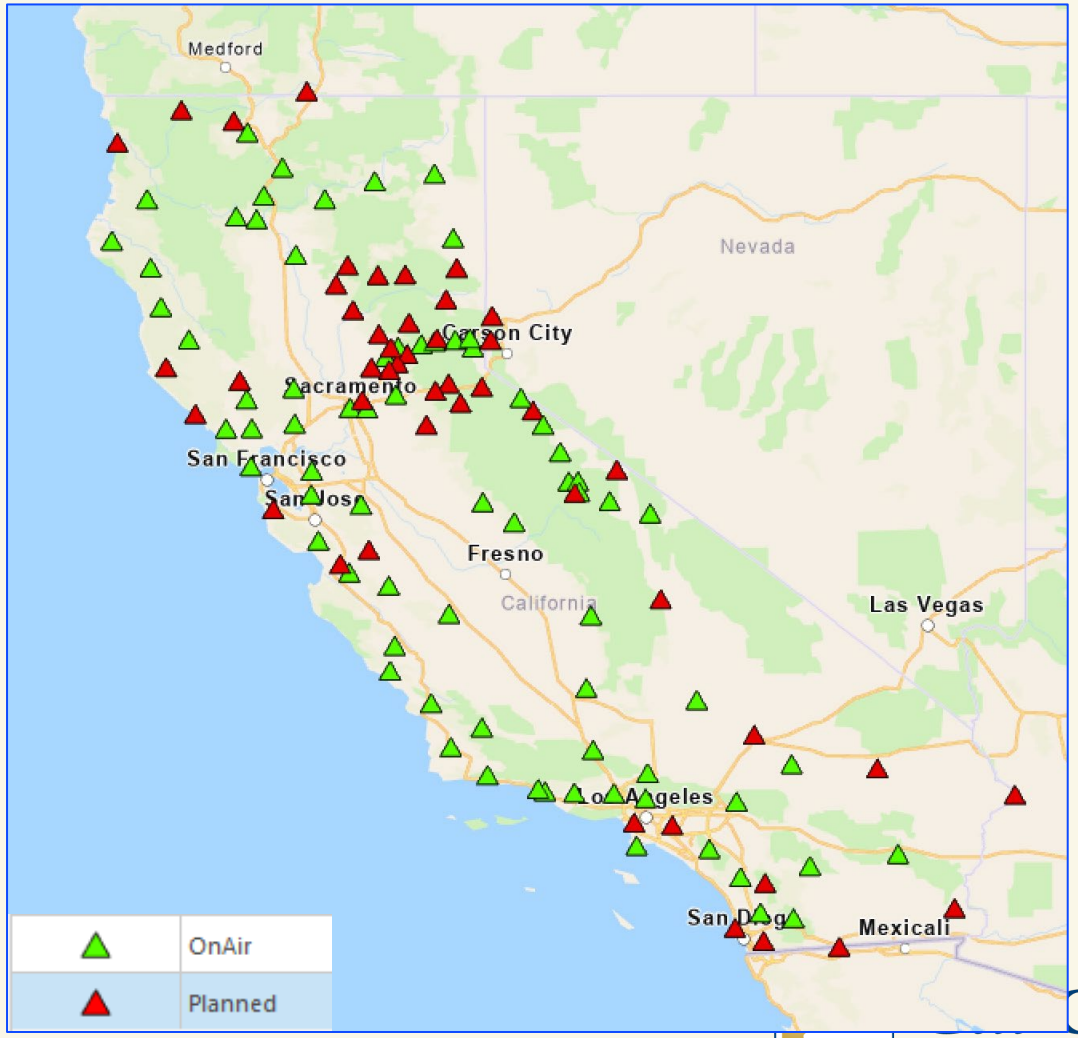
Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 8: CRIS Coverage Maps (con't)

CRIS SITES

Base Station name	Group	Band
Antelope Mountain (AT&T)	Planned	VHF
BaldwinHill	Planned	700MHz
Beckwourth Mtn. (CHP)	Planned	VHF
Big Hill (El Dorado) (CHP)	Planned	VHF
Black Metal	Planned	700MHz
Black Mtn Hendrix	Planned	700MHz
Black Mtn Imperial	Planned	700MHz
Black Mtn. (Lassen) (CHP)	Planned	VHF
Bloomer Mtn. 700	Planned	VHF
Boucher Mtn. L.O. CDF	Planned	700MHz
Colby Mtn. (CHP)	Planned	VHF
Cold Springs (CDF)	Planned	VHF
Coleville Antelope Valley	Planned	VHF
Cottonwood (CHP)	Planned	VHF
East Bristol (CHP)	Planned	700MHz
Flash II	Planned	700MHz
Gold Run	Planned	700MHz
Gunsight Peak (CHP)	Planned	VHF
Hamaker Mtn Siskiyou Co (CHP)	Planned	VHF
Hough Mtn (Plumas) (CHP)	Planned	VHF
Howell Mtn.	Planned	VHF
Iron Mtn	Planned	700MHz
Klamath Alder Camp OES	Planned	VHF
LaHabra	Planned	700MHz

Base Station name	Group	Band
Leek Spring	Planned	VHF
N.Sac A.O.	Planned	700MHz
Oregon Peak	Planned	VHF
Pacheco Pass	Planned	700MHz
Peavine Ridge MW (CHP-DCM)	Planned	VHF
Pise Mtn	Planned	700MHz
Platte Mtn (Butte) (CHP)	Planned	VHF
Red Hill (Plumas) (CHP)	Planned	VHF
Relay Peak	Planned	700MHz
Rocks Rd	Planned	700MHz
Ruby Bluff (CHP)	Planned	VHF
San Miguel Mt. (CHP)	Planned	700MHz
Scout Peak (DOT-Tower II)	Planned	VHF
Seaview (CHP)	Planned	VHF
Sierra College	Planned	700MHz
Signal Peak	Planned	700MHz
Slater Butte (CHP)	Planned	VHF
Smugglers Cave (CHP)	Planned	700MHz
Soledad Mtn. (DC)	Planned	700MHz
Thermoland	Planned	700MHz
Union Hill (CHP)	Planned	VHF
Zion Mtn. (CDF)	Planned	VHF
Seigler Mtn.	Planned	VHF

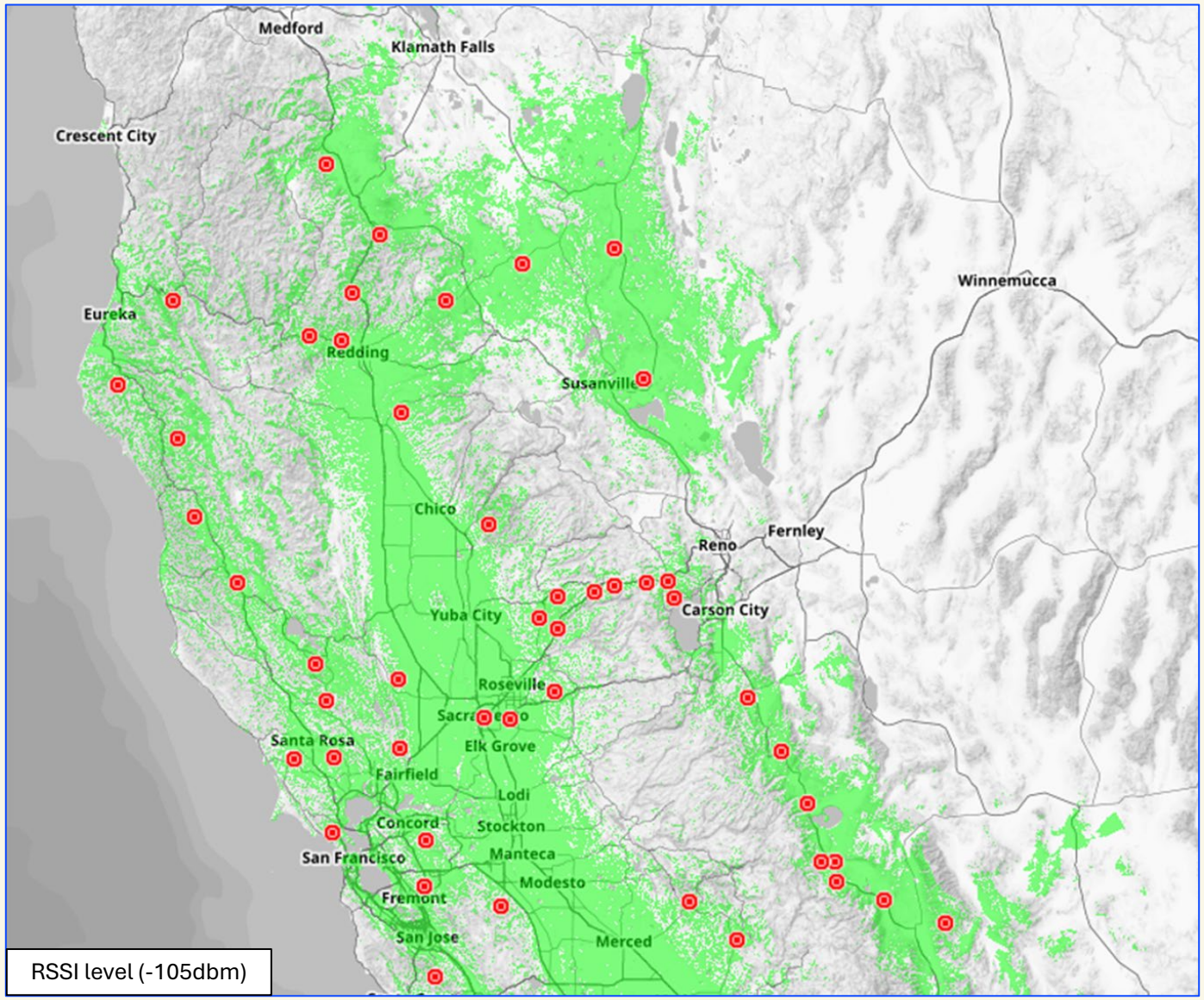


47 Planned Sites

OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 8: CRIS Coverage Maps (con't)

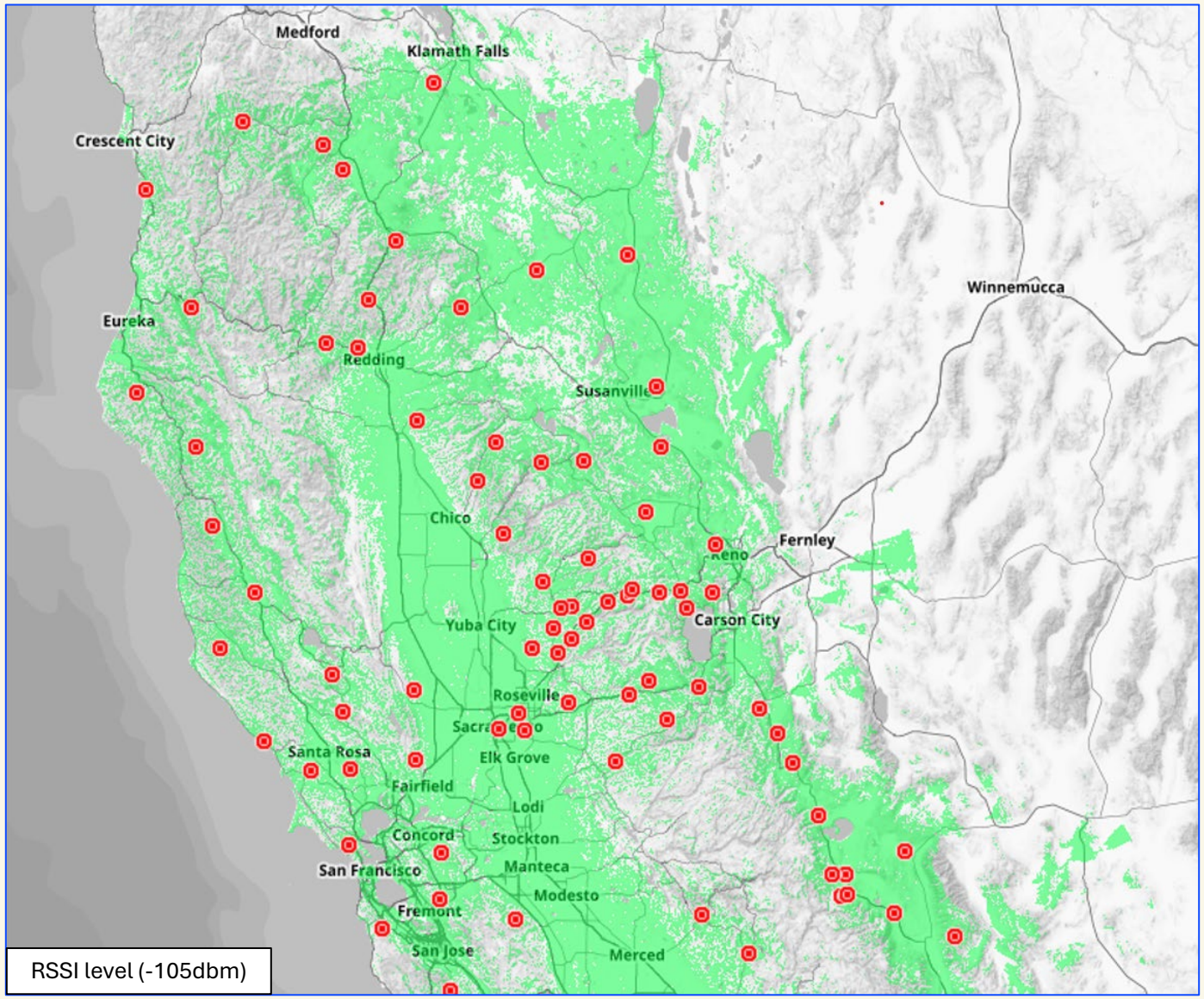
2025 Sites (NorCal)



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 8: CRIS Coverage Maps (con't)

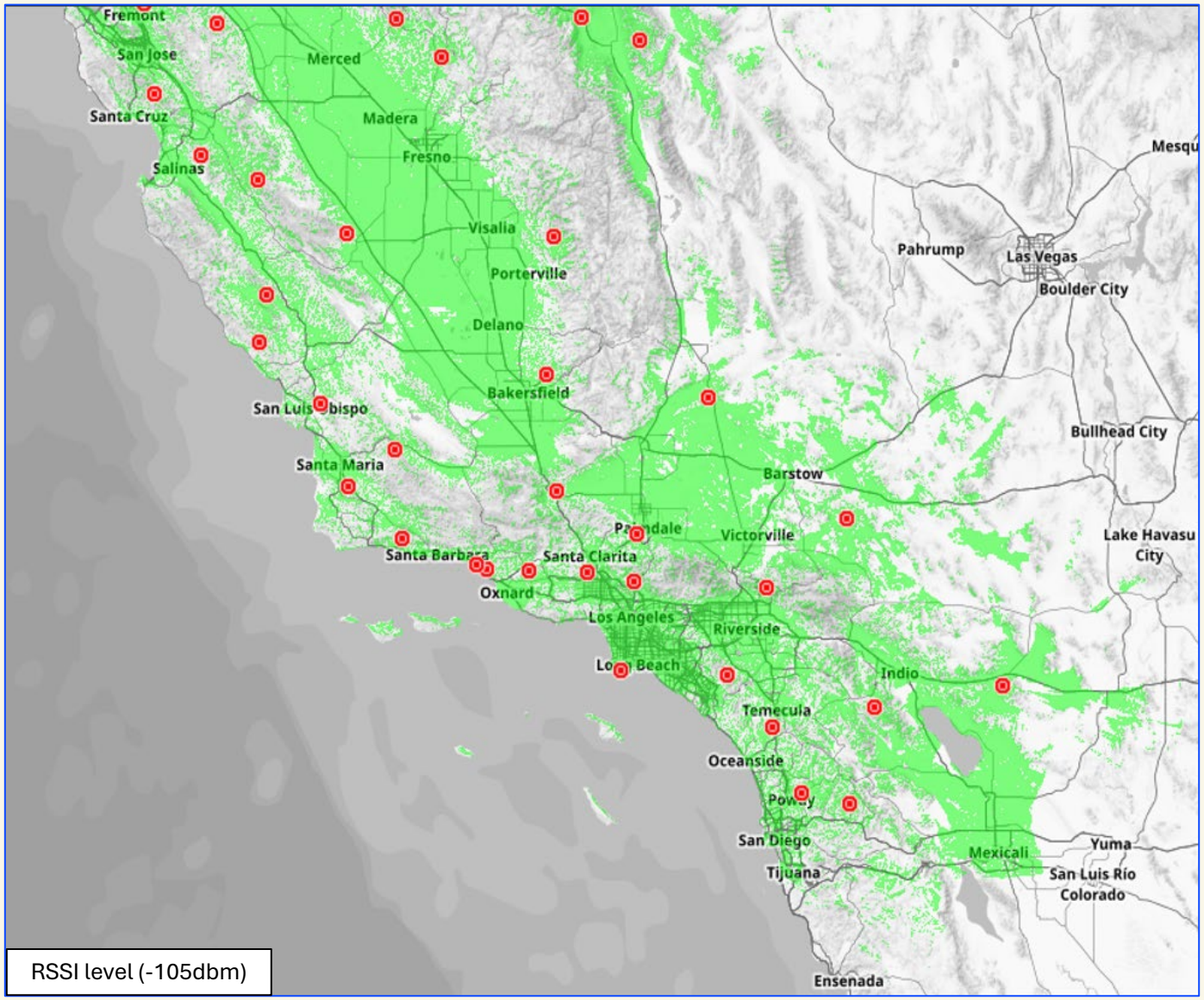
Existing + Planned Sites (NorCal)



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 8: CRIS Coverage Maps (con't)

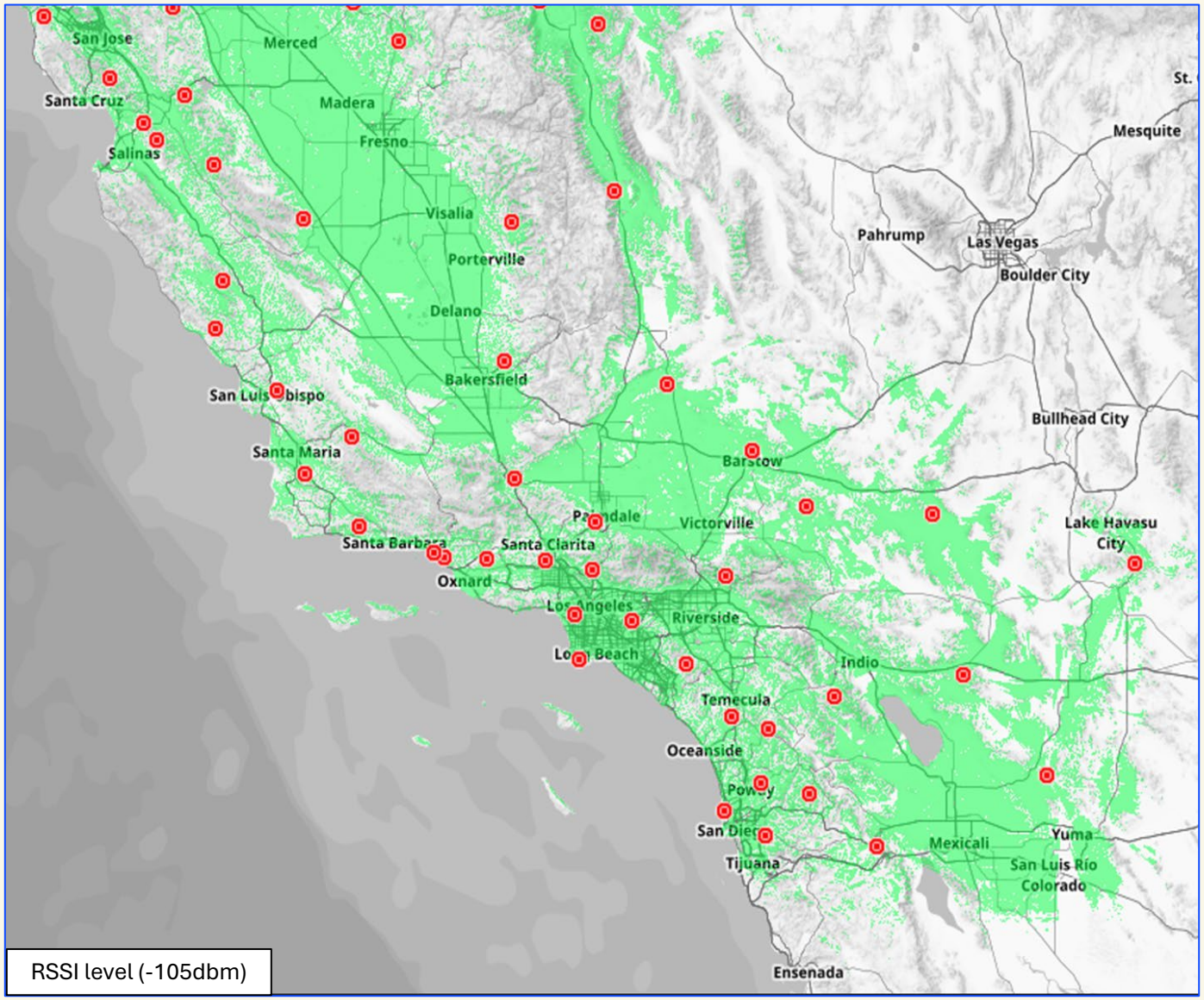
2025 Sites (SoCal)



Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 8: CRIS Coverage Maps (con't)

Existing + Planned Sites (SoCal)



Cal OES
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

Item 9: Agenda Items for Future Meetings

Board requests for matters to be placed on a future agenda.

2026 PSRSPC Meeting Dates:

- February 17, 2026 10AM – 12PM
- May 19, 2026 10AM – 12PM (Joint meeting with CalSIEC)

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 10: Public Comment

Public Comment for matters not on the agenda.

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Item 11: Adjourn

Thank you for attending this PSRSPC meeting.

General Information:
Samantha Barton, PSRSPC Board Liaison at
(916) 894-5155, or via email at
Samantha.Barton@CalOES.ca.gov

Media Information:
Anita Gore, Public Information Officer at (916) 539-9480, or via email at PIO@CalOES.ca.gov

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES