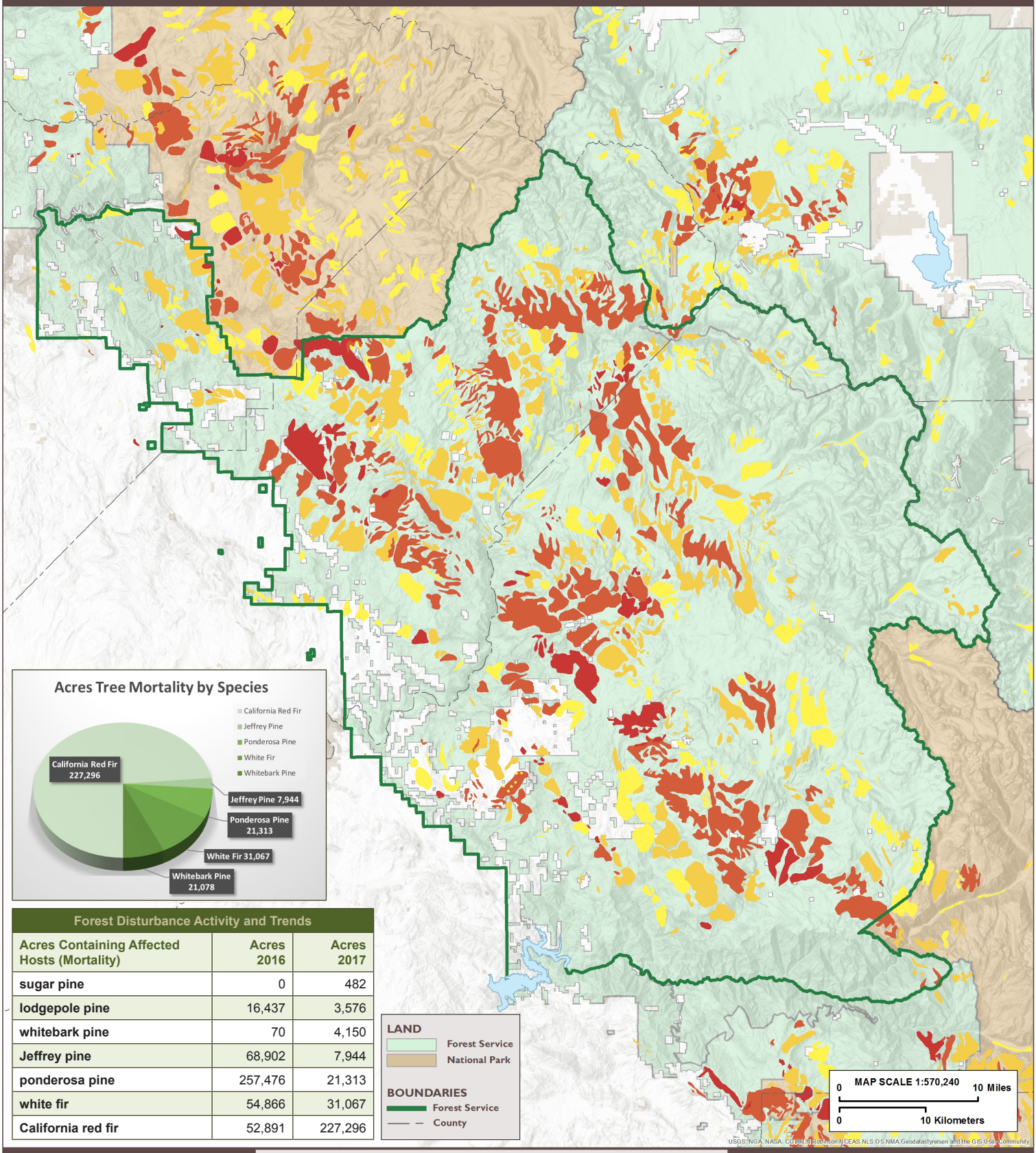
USDA
UNITED STATES DEPARTMENT OF AGRICULTURE

AERIAL DETECTION SURVEY, 2017
SIERRA NATIONAL FOREST



Forest Disturbance Activity and Trends

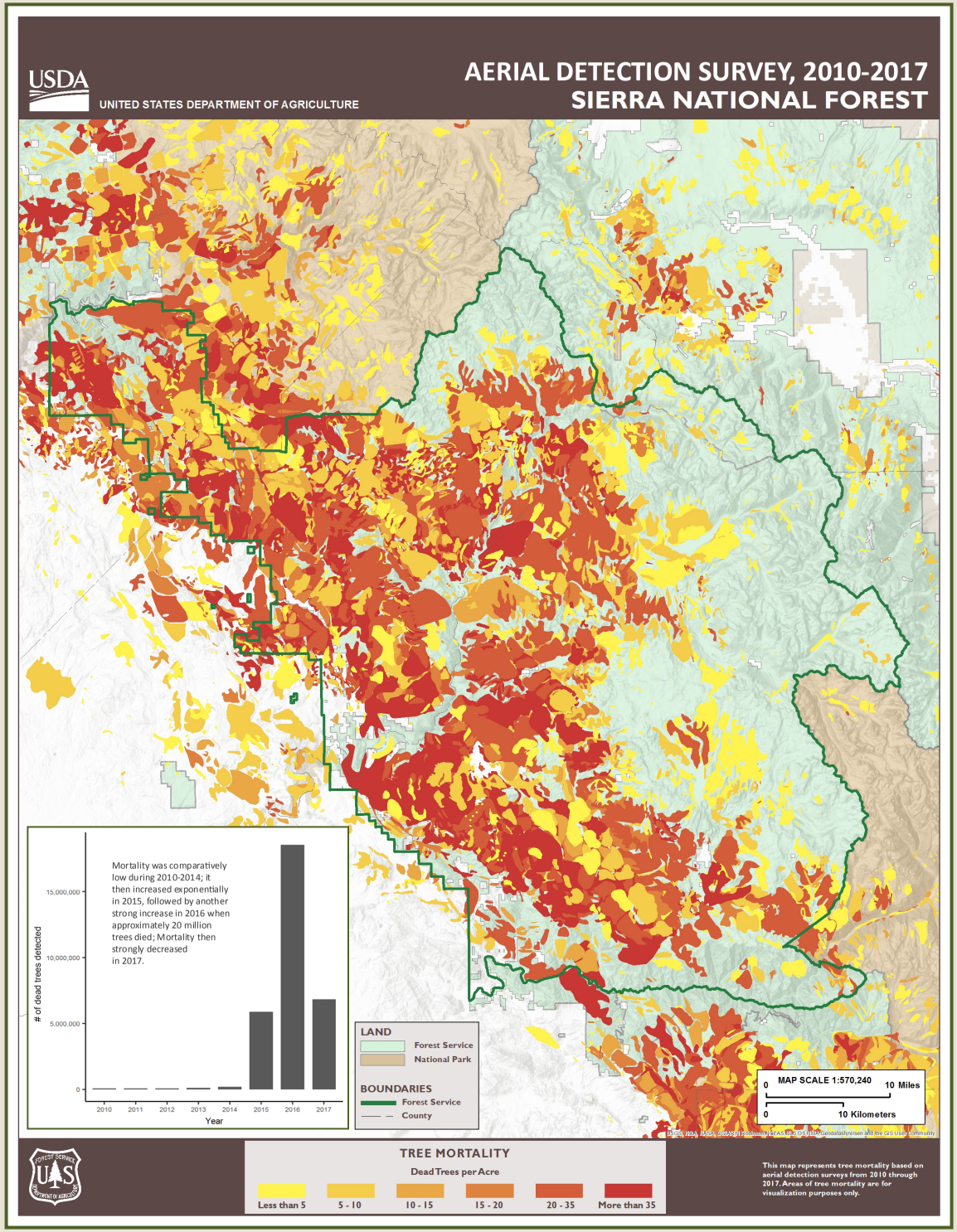
Acres Containing Affected Hosts (Mortality)	Acres 2016	Acres 2017
sugar pine	0	482
lodgepole pine	16,437	3,576
whitebark pine	70	4,150
Jeffrey pine	68,902	7,944
ponderosa pine	257,476	21,313
white fir	54,866	31,067
California red fir	52,891	227,296

TREE MORTALITY

Dead Trees per Acre

Less than 5 | 5 - 10 | 10 - 15 | 15 - 20 | 20 - 35 | More than 35

This map represents tree mortality based on 2017 aerial detection surveys. Areas of tree mortality are for visualization purposes only.



This area west of and with Devils Peak in background shows pervasive older dead pine and fir with newer dead fir in higher areas. Notice the Giant Sequoia in the foreground still appear healthy.

Highlights

- Mortality was greatly reduced from the estimated 18.6 million dead trees across more than 557,000 acres in 2016 to less than 7 million dead trees across 297,000 acres in 2017.
- The largest reduction was in ponderosa pine mortality from an estimated 9.4 million dead trees in 2016 to 230,000 dead trees in 2017.
- Jeffrey pine went from an estimated 1.6 million dead trees in 2016 to 55,000 dead trees in 2017.
- White fir mortality also decreased from an estimated 6.2 million dead trees in 2016 to 406,000 dead trees in 2017.
- Conversely, California red fir mortality increased from an estimated 805,000 dead trees in 2016 to 6.1 million dead trees in 2017.
- Whitebark and sugar pine mortality were also up considerably going from an estimated 50 and 700 dead trees in 2016 to 21,000 8,800 dead trees in 2017 respectively.
- No new oak mortality was detected in 2017 down from an estimated 207,000 dead trees in 2016.
- Lodgepole pine mortality was also greatly reduced from an estimated 390,000 dead trees in 2016 to just 17,000 dead trees