8/25 Rim/American Fire AQ Summary; 8/26-8/28 Outlook

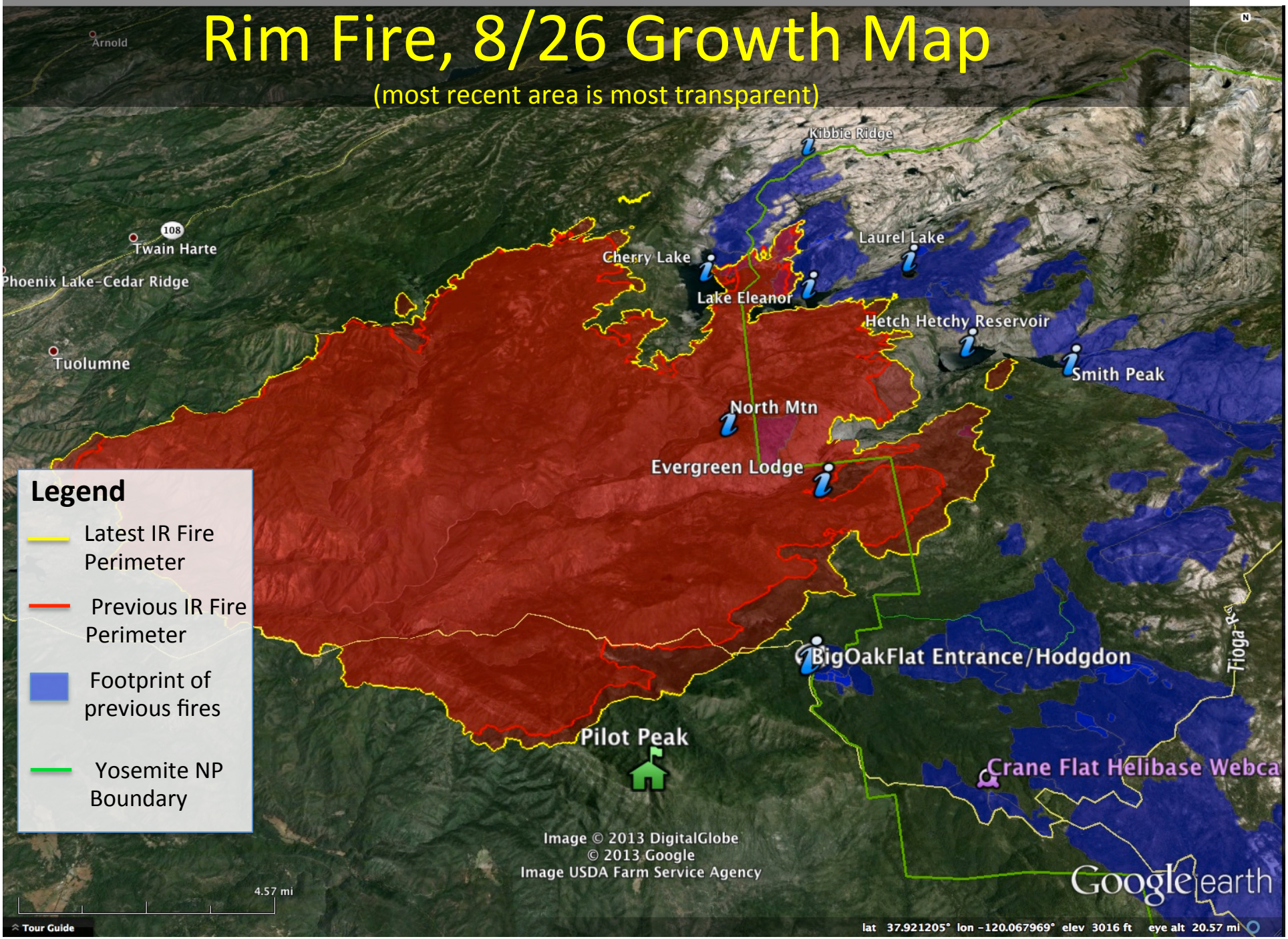
- Under the influence of stronger SW winds, the Rim fire grew to 149,780, with 21,782 acres of that in Yosemite NP .
- The plume and pattern of impacts remains the same, as smoke continues to spread as far north as Reno and the Carson Valley, east over the Great Basin, and then downslope at night to communities immediately north and west of the fire.
- Tuolumne City in particular continues to experience smoke in the hazardous AQI range at night, though concentrations recover to good in the afternoon.
- Generally, models show same pattern (or worse) continuing for all sites for the next few days.
- Pinecrest Lake is likely experiencing direct plume impacts and heavy smoke, data from that monitor should be coming online soon.
- Models show Carson Valley and Reno/Tahoe will continue to see afternoon direct plume impacts in the late morning to early afternoon, with accumulation of drift smoke under inversions in the evening and overnight. See attached graphs for patterns and levels of impacts at a given site.

Prepared by Leland Tarnay, air resources specialist

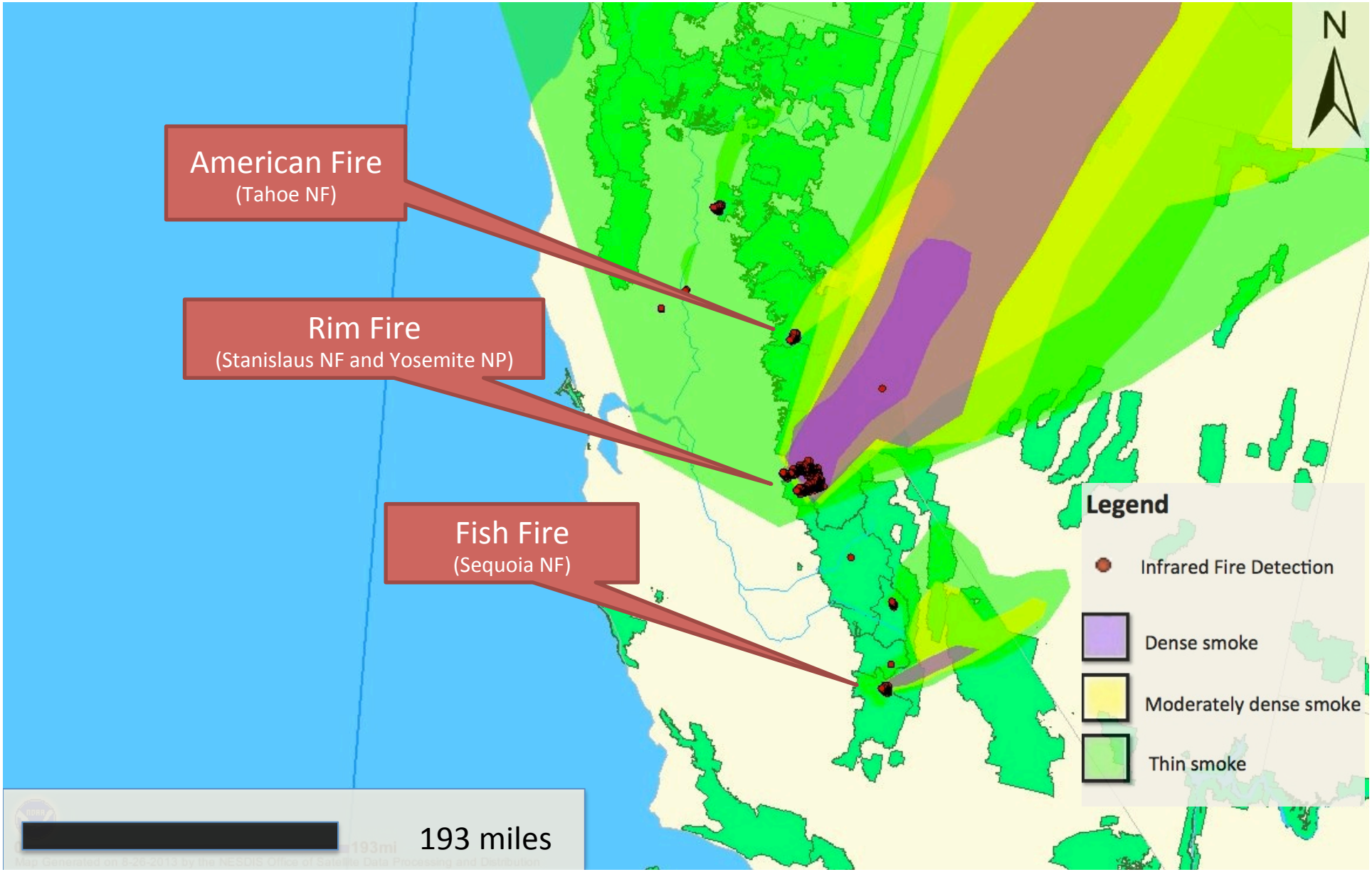
Rim Fire Information:
http://inciweb.nwcg.gov/incident/3660/

Rim Fire, 8/26 Growth Map

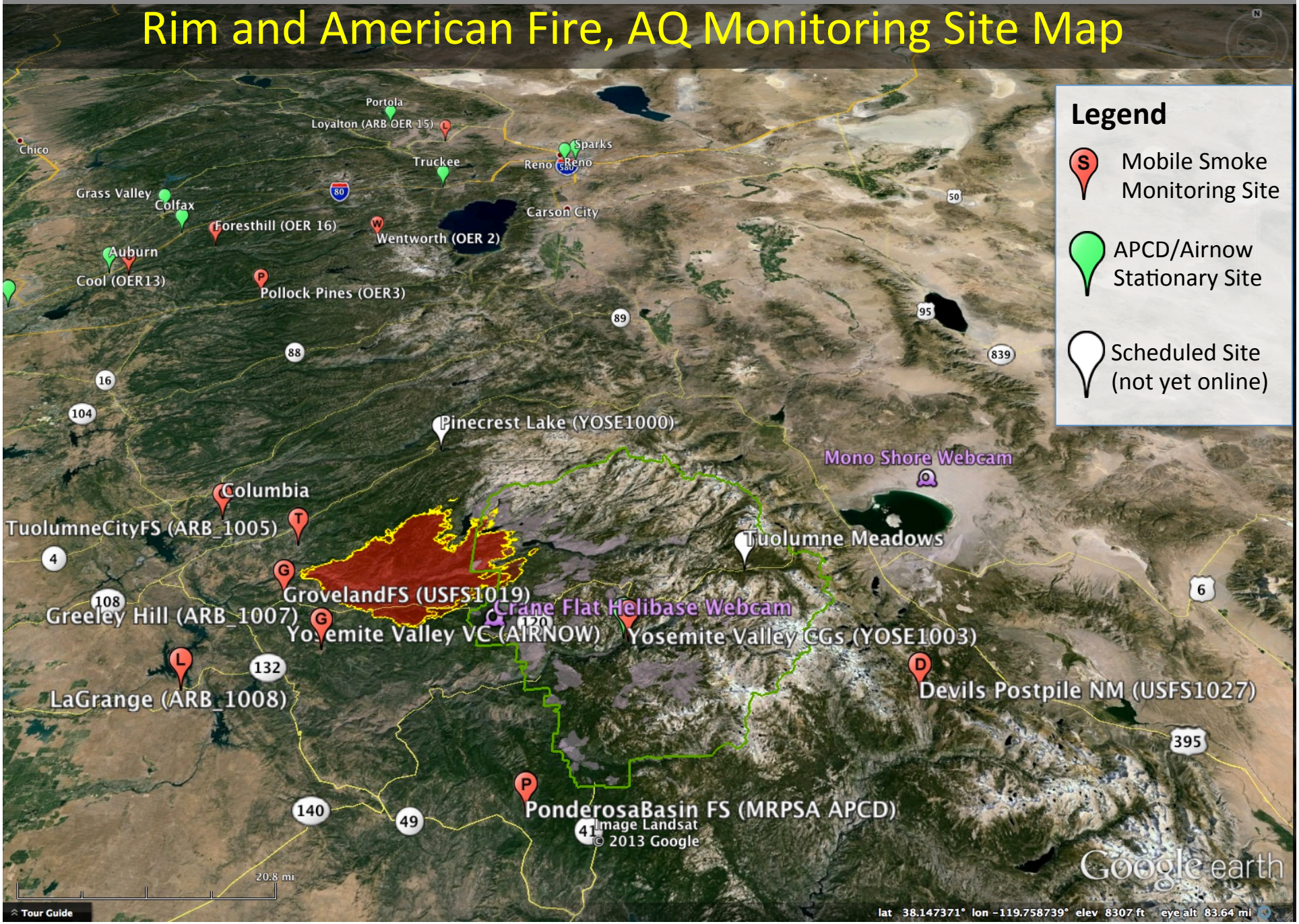
(most recent area is most transparent)

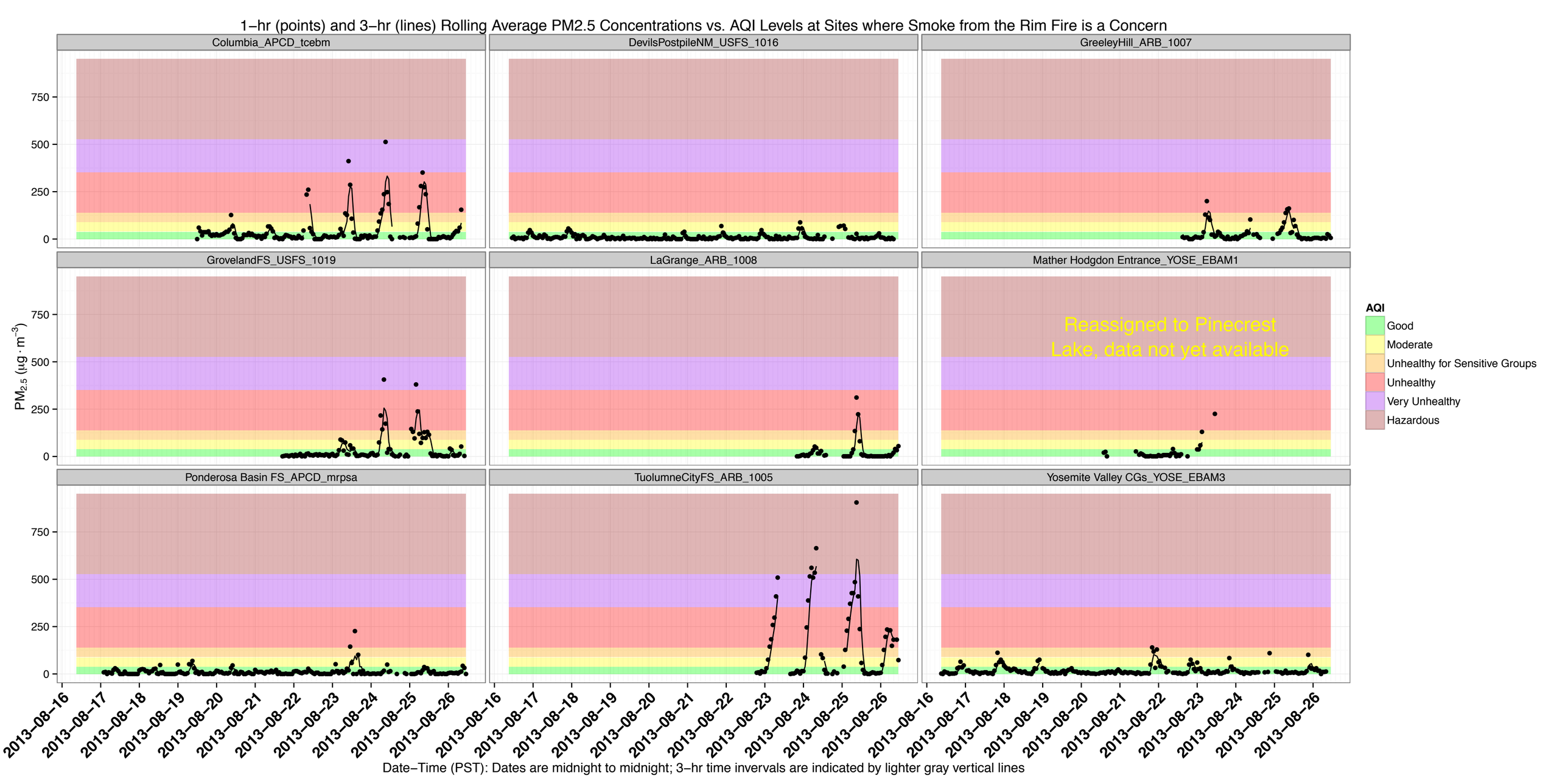


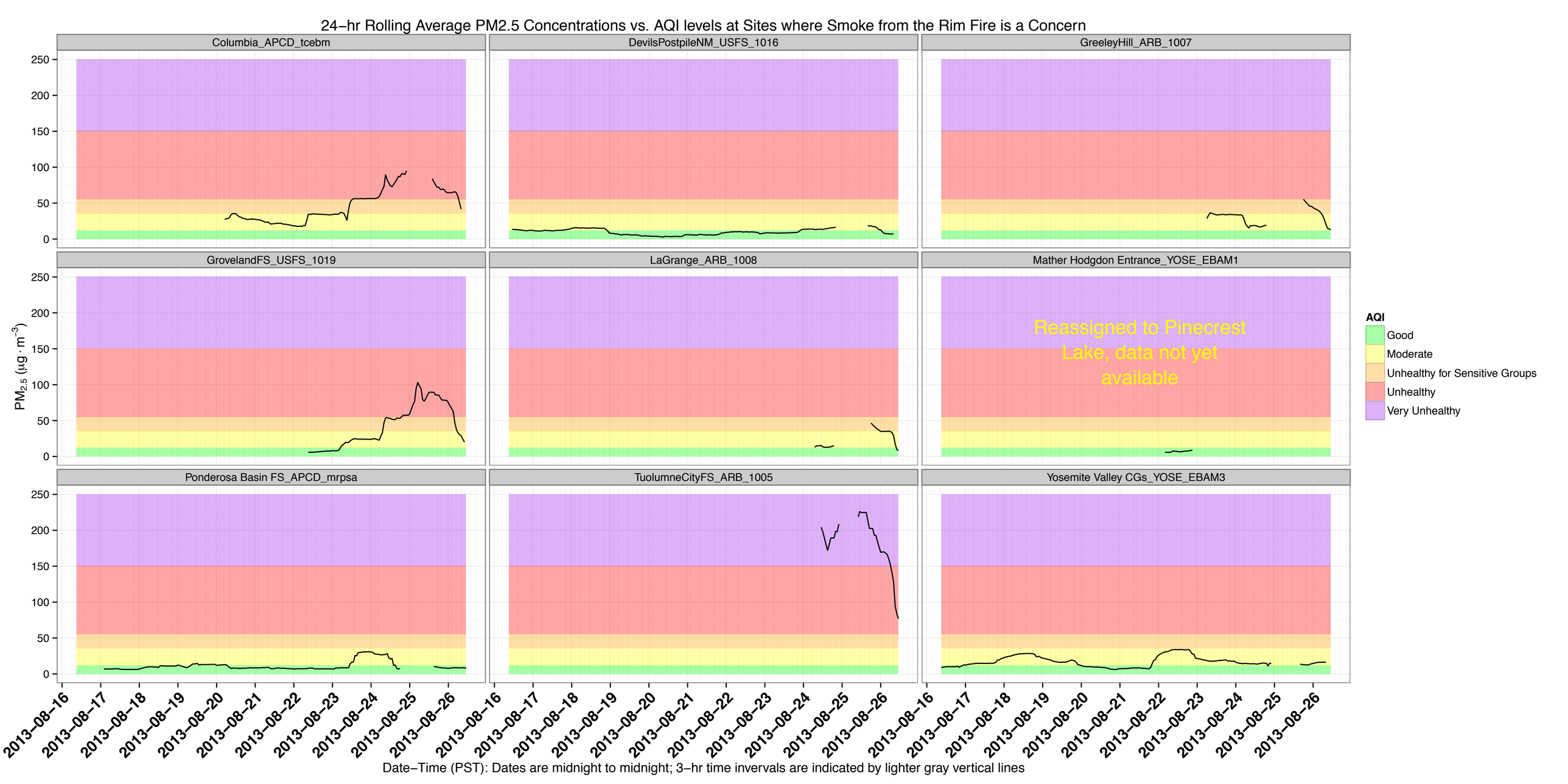
August 25, 2013: Fires and Smoke over California and the Western U.S. (Satellite Observation)

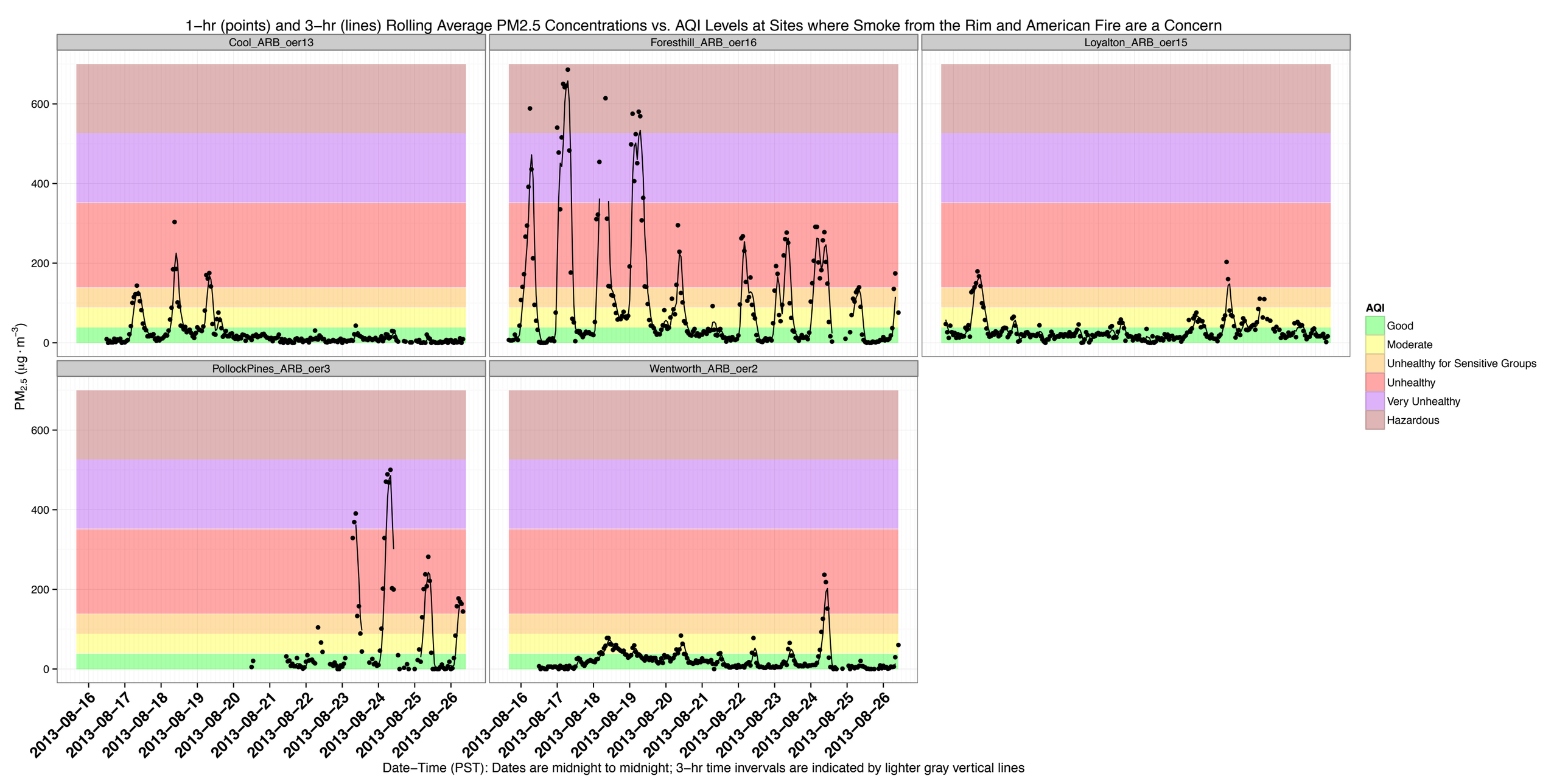


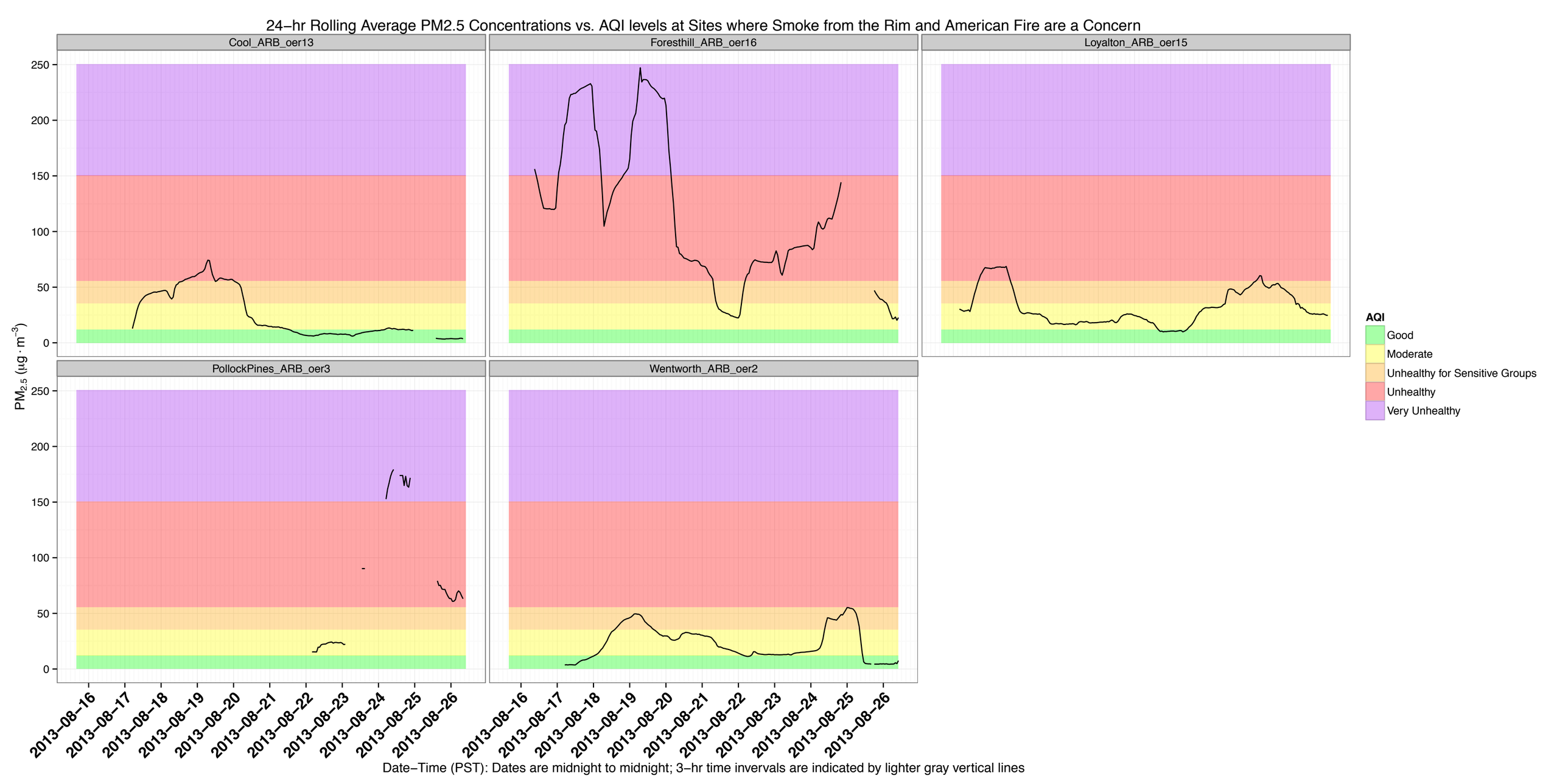
Rim and American Fire, AQ Monitoring Site Map

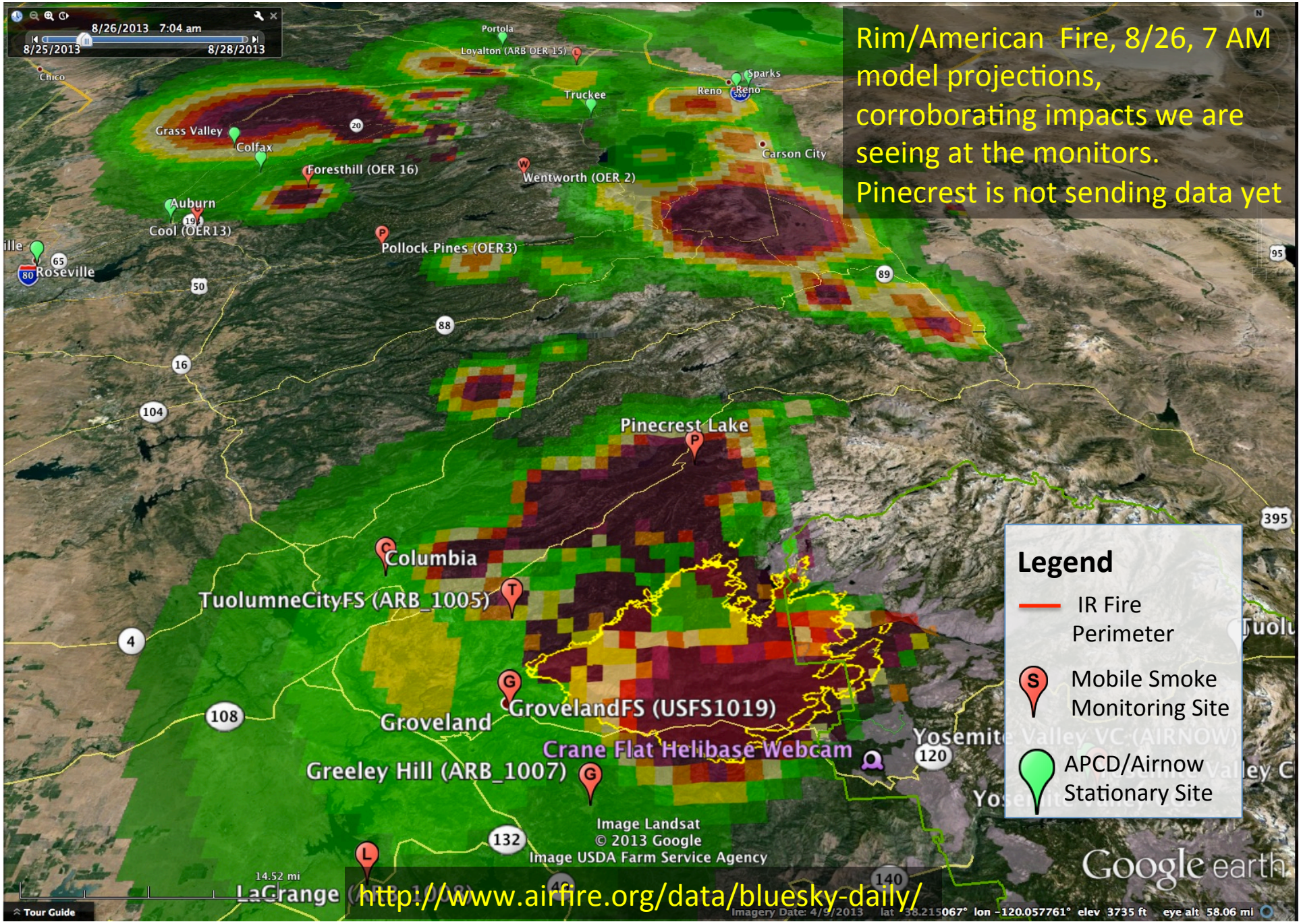


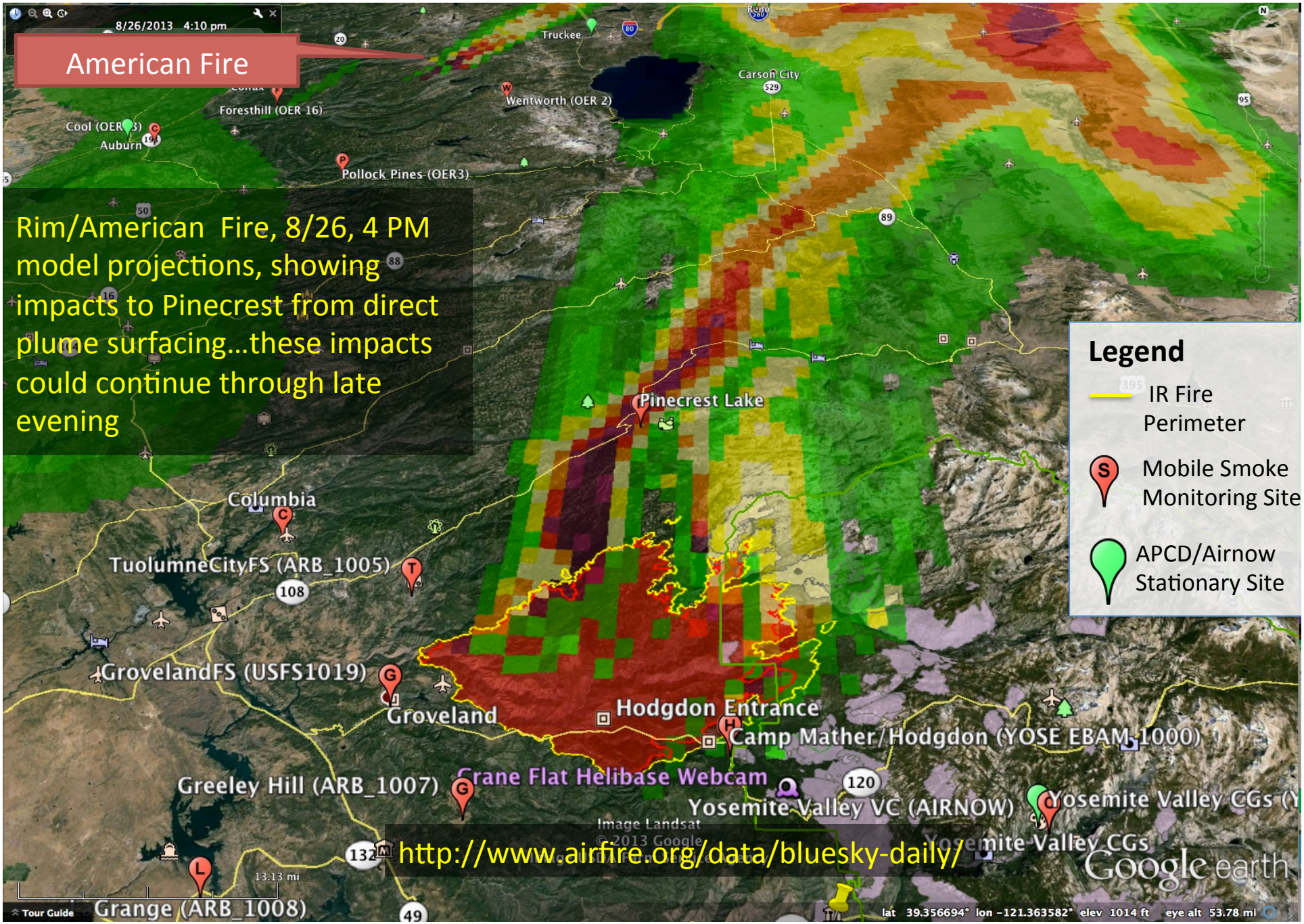

1−hr (points) and 3−hr (lines) Rolling Average PM2.5 Concentrations vs. AQI Levels at Sites where Smoke from the Rim Fire is a Concern
Columbia_APCD_tcebm
DevilsPostpileNM_USFS_1016
GreeleyHill_ARB_1007
GrovelandFS_USFS_1019
LaGrange_ARB_1008
Mather Hodgdon Entrance_YOSE_EBAM1
Reassigned to Pinecrest Lake, data not yet available
Ponderosa Basin FS_APCD_mrpsa
TuolumneCityFS_ARB_1005
Yosemite Valley CGs_YOSE_EBAM3
PM2.5 (µg · m−3)
0
250
500
750
2013−08−16
2013−08−17
2013−08−18
2013−08−19
2013−08−20
2013−08−21
2013−08−22
2013−08−23
2013−08−24
2013−08−25
2013−08−26
Date−Time (PST): Dates are midnight to midnight; 3−hr time invervals are indicated by lighter gray vertical lines
AQI
Good
Moderate
Unhealthy for Sensitive Groups
Unhealthy
Very Unhealthy
Hazardous

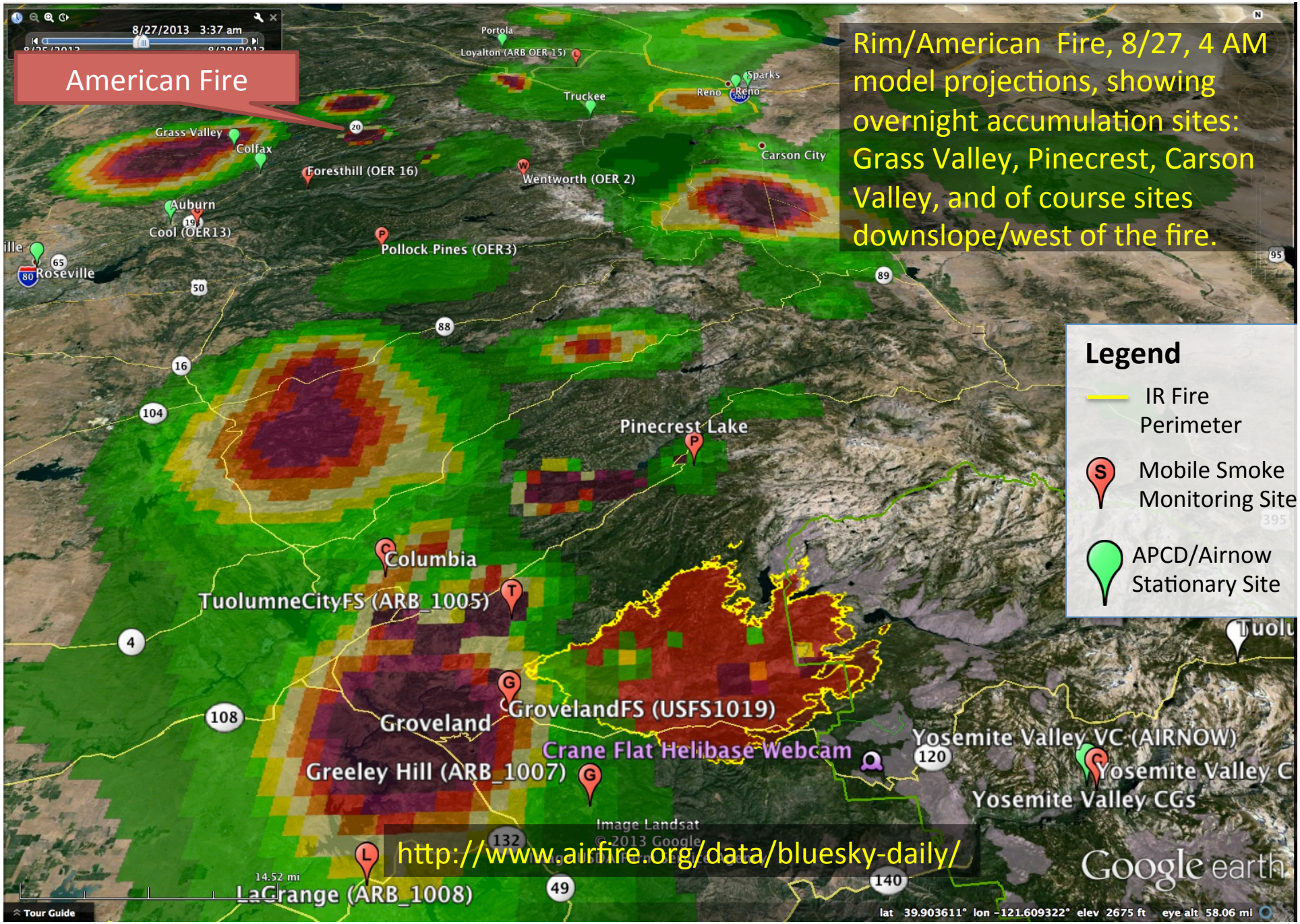

24−hr Rolling Average PM2.5 Concentrations vs. AQI levels at Sites where Smoke from the Rim Fire is a Concern
Columbia_APCD_tcebm
DevilsPostpileNM_USFS_1016
GreeleyHill_ARB_1007
GrovelandFS_USFS_1019
LaGrange_ARB_1008
Mather Hodgdon Entrance_YOSE_EBAM1
Reassigned to Pinecrest Lake, data not yet available
Ponderosa Basin FS_APCD_mrpsa
TuolumneCityFS_ARB_1005
Yosemite Valley CGs_YOSE_EBAM3
PM2.5 (µg · m−3)
0
50
100
150
200
250
2013−08−16
2013−08−17
2013−08−18
2013−08−19
2013−08−20
2013−08−21
2013−08−22
2013−08−23
2013−08−24
2013−08−25
2013−08−26
Date−Time (PST): Dates are midnight to midnight; 3−hr time invervals are indicated by lighter gray vertical lines
AQI
Good
Moderate
Unhealthy for Sensitive Groups
Unhealthy
Very Unhealthy

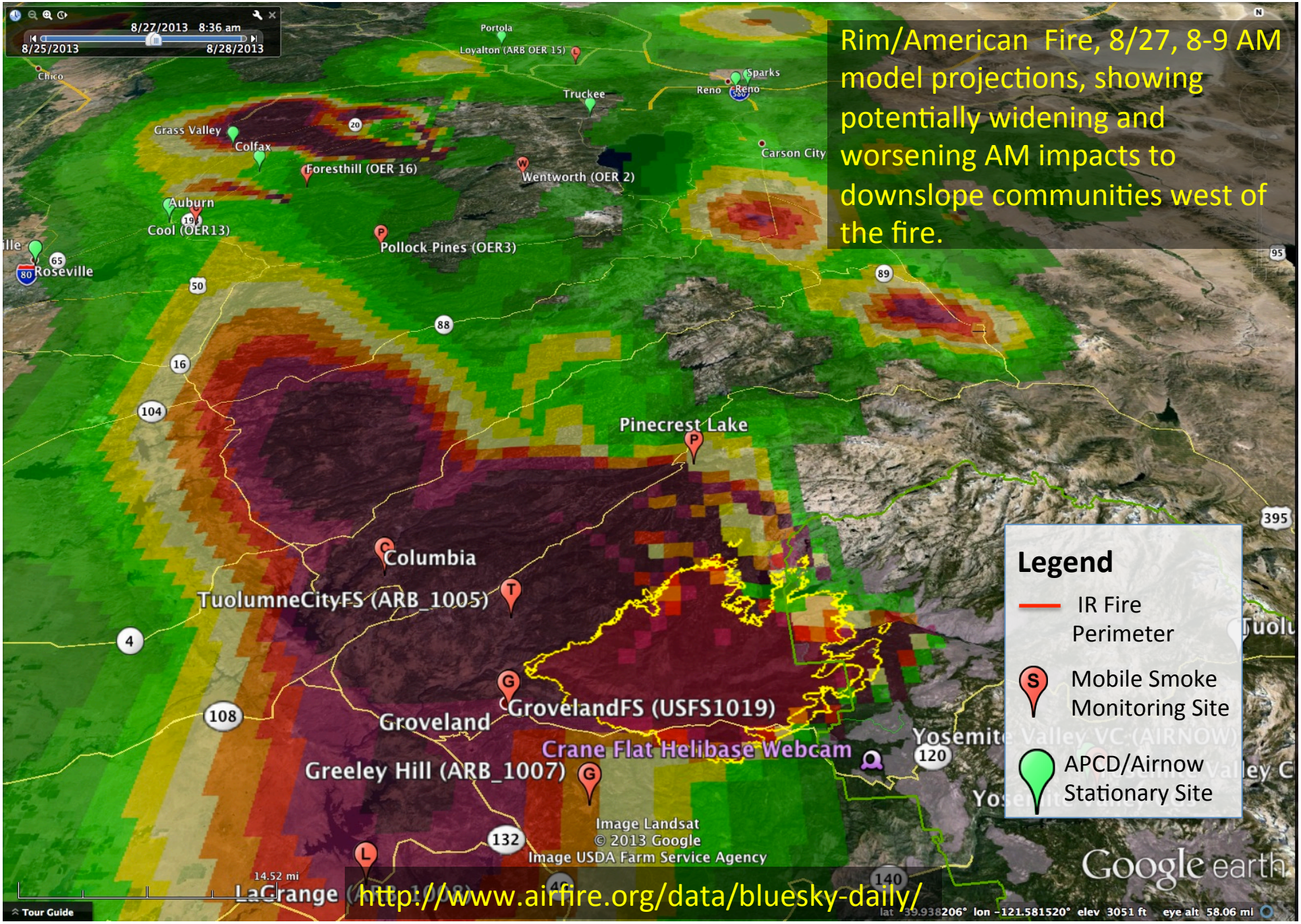

1−hr (points) and 3−hr (lines) Rolling Average PM2.5 Concentrations vs. AQI Levels at Sites where Smoke from the Rim and American Fire are a Concern
Cool_ARB_oer13
Foresthill_ARB_oer16
Loyalton_ARB_oer15
PollockPines_ARB_oer3
Wentworth_ARB_oer2
PM2.5 (µg · m−3)
0
200
400
600
2013−08−16
2013−08−17
2013−08−18
2013−08−19
2013−08−20
2013−08−21
2013−08−22
2013−08−23
2013−08−24
2013−08−25
2013−08−26
Date−Time (PST): Dates are midnight to midnight; 3−hr time invervals are indicated by lighter gray vertical lines
AQI
Good
Moderate
Unhealthy for Sensitive Groups
Unhealthy
Very Unhealthy
Hazardous

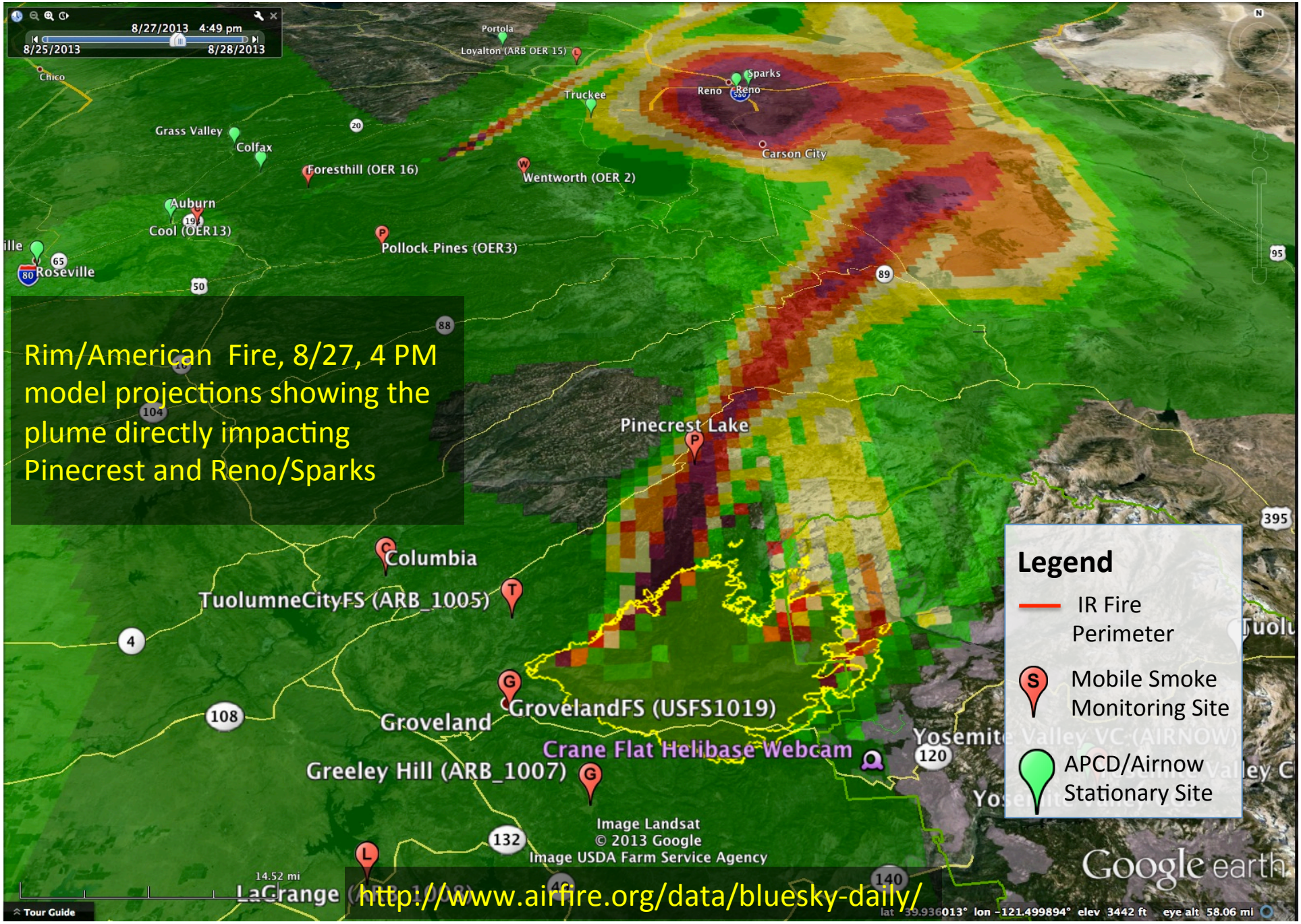

24−hr Rolling Average PM2.5 Concentrations vs. AQI levels at Sites where Smoke from the Rim and American Fire are a Concern
Cool_ARB_oer13
Foresthill_ARB_oer16
Loyalton_ARB_oer15
PollockPines_ARB_oer3
Wentworth_ARB_oer2
PM2.5 (µg · m−3)
0
50
100
150
200
250
2013−08−16
2013−08−17
2013−08−18
2013−08−19
2013−08−20
2013−08−21
2013−08−22
2013−08−23
2013−08−24
2013−08−25
2013−08−26
Date−Time (PST): Dates are midnight to midnight; 3−hr time invervals are indicated by lighter gray vertical lines
AQI
Good
Moderate
Unhealthy for Sensitive Groups
Unhealthy
Very Unhealthy

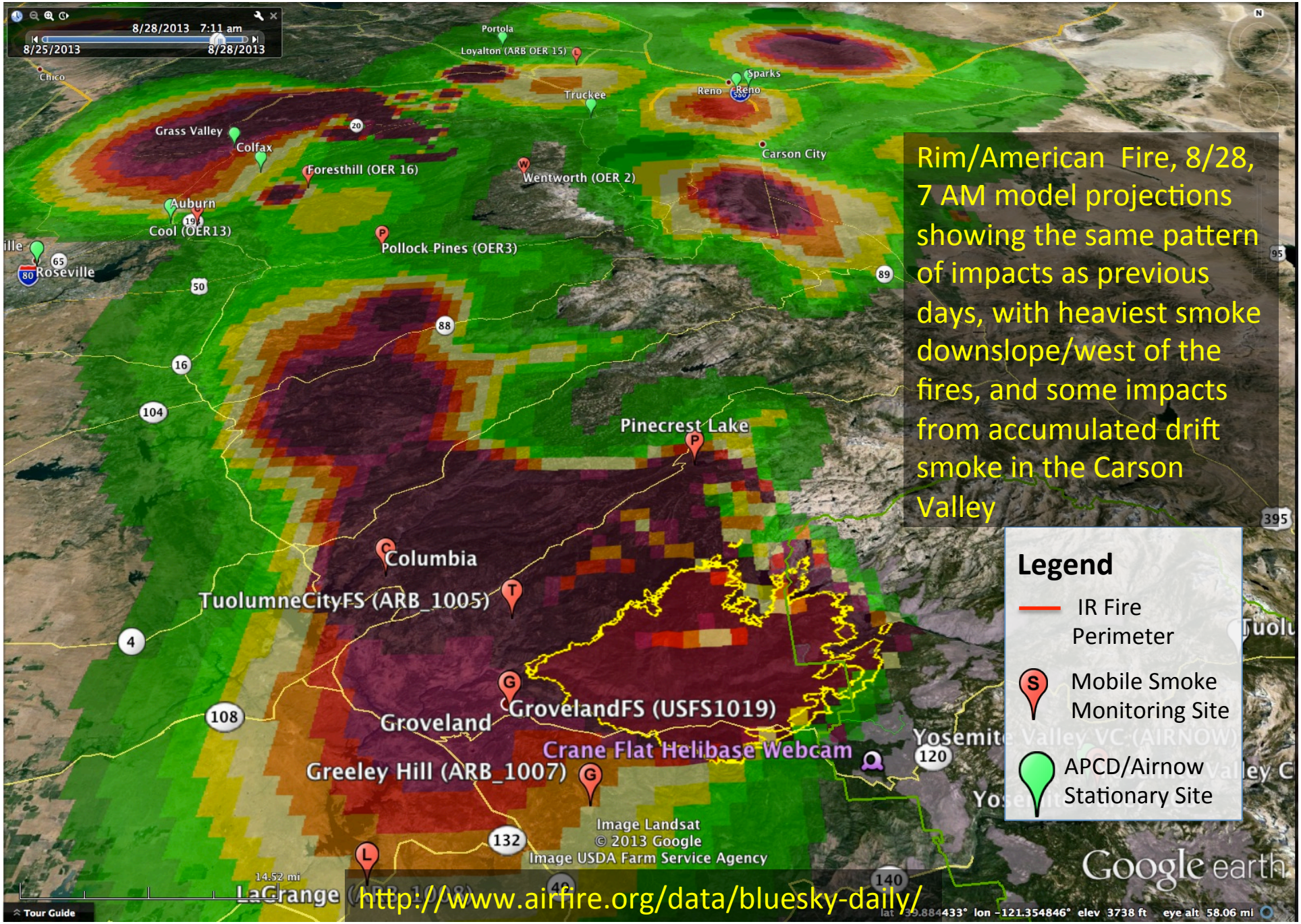

Rim/American Fire, 8/26, 7 AM model projections, corroborating impacts we are seeing at the monitors.
Pinecrest is not sending data yet
8/26/2013 7:04 am
8/25/2013
8/28/2013
Chico
Portola
Loyalton (ARB OER 15)
Truckee
Reno
Sparks
Carson City
Grass Valley
Colfax
Foresthill (OER 16)
Wentworth (OER 2)
Auburn
Cool (OER13)
Pollock Pines (OER3)
Roseville
Pinecrest Lake
Columbia
TuolumneCityFS (ARB_1005)
GrovelandFS (USFS1019)
Groveland
Crane Flat Helibase Webcam
Greeley Hill (ARB_1007)
Yosemite Valley VC (AIRNOW)
Image Landsat
© 2013 Google
Image USDA Farm Service Agency
LaGrange
14.52 mi
Legend
IR Fire Perimeter
Mobile Smoke Monitoring Site
APCD/Airnow Stationary Site
Google earth
Tour Guide
http://www.airfire.org/data/bluesky-daily/


8/26/2013 4:10 pm
American Fire
Rim/American Fire, 8/26, 4 PM model projections, showing impacts to Pinecrest from direct plume surfacing…these impacts could continue through late evening
Truckee
Carson City
Wentworth (OER 2)
Foresthill (OER 16)
Cool (OER 3)
Auburn
Pollock Pines (OER3)
Pinecrest Lake
Columbia
TuolumneCityFS (ARB_1005)
GrovelandFS (USFS1019)
Groveland
Hodgdon Entrance
Camp Mather/Hodgdon (YOSE EBAM 1000)
Crane Flat Helibase Webcam
Greeley Hill (ARB_1007)
Yosemite Valley VC (AIRNOW)
Yosemite Valley CGs
Grange (ARB_1008)
Legend
IR Fire Perimeter
Mobile Smoke Monitoring Site
APCD/Airnow Stationary Site
http://www.airfire.org/data/bluesky-daily/
Google earth


8/27/2013 3:37 am
American Fire
Rim/American Fire, 8/27, 4 AM model projections, showing overnight accumulation sites: Grass Valley, Pinecrest, Carson Valley, and of course sites downslope/west of the fire.
Portola
Loyalton (ARB OER 15)
Truckee
Sparks
Reno
Carson City
Grass Valley
Colfax
Foresthill (OER 16)
Wentworth (OER 2)
Auburn
Cool (OER13)
Pollock Pines (OER3)
Roseville
Pinecrest Lake
Columbia
TuolumneCityFS (ARB_1005)
GrovelandFS (USFS1019)
Groveland
Crane Flat Helibase Webcam
Greeley Hill (ARB_1007)
Yosemite Valley VC (AIRNOW)
Yosemite Valley C
Yosemite Valley CGs
LaGrange (ARB_1008)
Legend
IR Fire Perimeter
Mobile Smoke Monitoring Site
APCD/Airnow Stationary Site
http://www.airfire.org/data/bluesky-daily/
Image Landsat
© 2013 Google
Google earth
Tour Guide
lat 39.903611° lon -121.609322° elev 2675 ft eye alt 58.06 mi


Rim/American Fire, 8/27, 8-9 AM model projections, showing potentially widening and worsening AM impacts to downslope communities west of the fire.
8/27/2013 8:36 am
8/25/2013
8/28/2013
Portola
Loyalton (ARB OER 15)
Chico
Truckee
Reno
Sparks
Grass Valley
Colfax
Foresthill (OER 16)
Wentworth (OER 2)
Carson City
Auburn
Cool (OER13)
Pollock Pines (OER3)
Roseville
Pinecrest Lake
Columbia
TuolumneCityFS (ARB_1005)
GrovelandFS (USFS1019)
Groveland
Crane Flat Helibase Webcam
Greeley Hill (ARB_1007)
Image Landsat
© 2013 Google
Image USDA Farm Service Agency
LaGrange
Legend
IR Fire Perimeter
Mobile Smoke Monitoring Site
APCD/Airnow Stationary Site
Google earth
http://www.airfire.org/data/bluesky-daily/


8/27/2013 4:49 pm
8/25/2013
8/28/2013
Rim/American Fire, 8/27, 4 PM model projections showing the plume directly impacting Pinecrest and Reno/Sparks
Portola
Loyalton (ARB OER 15)
Truckee
Reno
Sparks
Carson City
Chico
Grass Valley
Colfax
Foresthill (OER 16)
Wentworth (OER 2)
Auburn
Cool (OER13)
Pollock Pines (OER3)
Roseville
Pinecrest Lake
Columbia
TuolumneCityFS (ARB_1005)
GrovelandFS (USFS1019)
Groveland
Crane Flat Helibase Webcam
Greeley Hill (ARB_1007)
LaGrange
Legend
IR Fire Perimeter
Mobile Smoke Monitoring Site
APCD/Airnow Stationary Site
Image Landsat
© 2013 Google
Image USDA Farm Service Agency
Google earth
http://www.airfire.org/data/bluesky-daily/


8/28/2013 7:11 am
8/25/2013
8/28/2013
Portola
Loyalton (ARB OER 15)
Chico
Truckee
Sparks
Reno
Grass Valley
Colfax
Foresthill (OER 16)
Wentworth (OER 2)
Carson City
Auburn
Cool (OER13)
Pollock Pines (OER3)
Roseville
Pinecrest Lake
Columbia
TuolumneCityFS (ARB_1005)
GrovelandFS (USFS1019)
Groveland
Crane Flat Helibase Webcam
Greeley Hill (ARB_1007)
Yosemite Valley VC (AIRNOW)
Image Landsat
© 2013 Google
Image USDA Farm Service Agency
LaGrange
14.52 mi
Google earth
Tour Guide
Rim/American Fire, 8/28, 7 AM model projections showing the same pattern of impacts as previous days, with heaviest smoke downslope/west of the fires, and some impacts from accumulated drift smoke in the Carson Valley
Legend
IR Fire Perimeter
Mobile Smoke Monitoring Site
APCD/Airnow Stationary Site
http://www.airfire.org/data/bluesky-daily/