

Foothill smog

Though vehicles and industry in the Valley spew most of the smog-forming pollutants in the region, foothill residents often get the brunt of the bad air.

1 Valley cities generate most pollutants

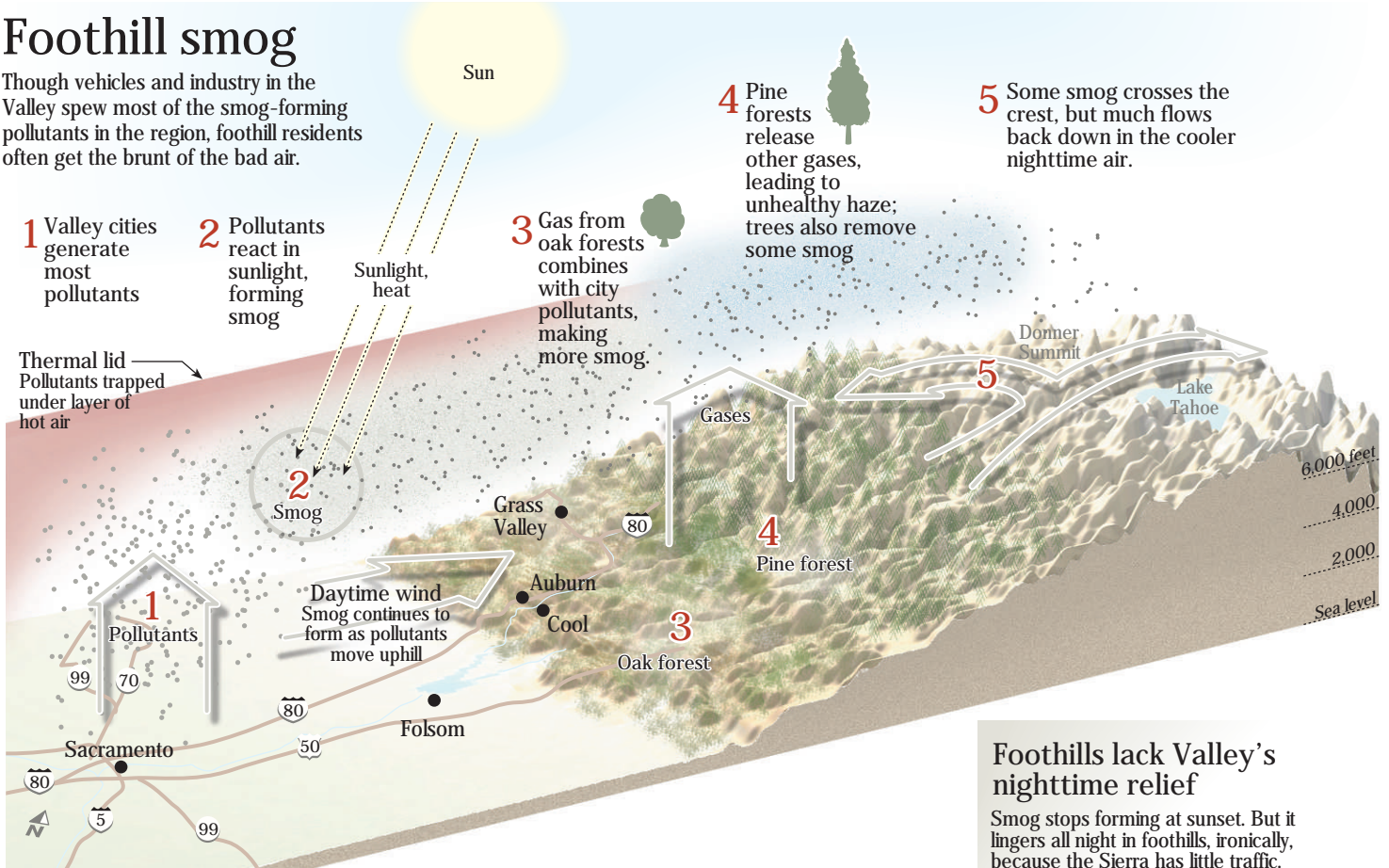
2 Pollutants react in sunlight, forming smog

3 Gas from oak forests combines with city pollutants, making more smog

4 Pine forests release other gases, leading to unhealthy haze; trees also remove some smog

5 Some smog crosses the crest, but much flows back down in the cooler nighttime air.

Thermal lid
Pollutants trapped under layer of hot air



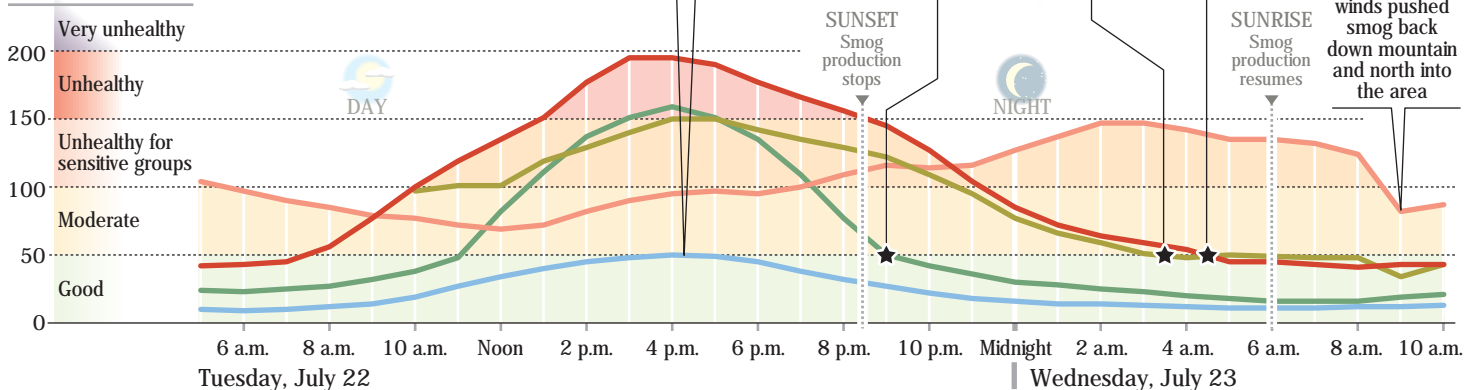
Foothills lack Valley's nighttime relief

Smog stops forming at sunset. But it lingers all night in foothills, ironically, because the Sierra has little traffic. Vehicles spew pollutants called nitrogen oxides that form smog during the day, but destroys it at night.

Smog lingers in foothills

Air quality readings during worst smog episode so far this year – July 22-23.

AIR QUALITY INDEX



Sources: Allen Goldstein, UC Berkeley; Thomas Cahill and John Carroll, UC Davis; Sacramento Metropolitan Air Quality Management District; National Weather Service; Sonoma Technology Inc.