

National Weather Service Office in Los Angeles/Oxnard, CA Announces Forecast Zone Changes for Los Angeles, Ventura, Santa Barbara, and San Luis Obispo Counties.

Why: Southern California has a very diverse topography which creates a complicated weather regime that is very challenging to portray, both in terms of general weather, marine, and fire weather forecasts as well as with short and long fuse weather hazards. The placement of hundreds of utility-owned weather stations in the last few years has further highlighted this weather diversity and heightened our awareness of certain unique weather issues in our area. The current set of zones, created almost 30 years ago with only minor changes since then, do not adequately address this diversity. One of the biggest issues is with weather hazards. The current zone boundaries are too broad in many areas, resulting in hazards being in effect for areas that could never have such conditions (ie. a High Surf Advisory or Tsunami Warning for Downtown Los Angeles). For these reasons and with input from core partners as well as collaboration with local, regional, and national offices, NWS Los Angeles/Oxnard (LOX) embarked on a process to improve our zone boundaries.

Where: All four counties in the LOX area will have some changes to their zone boundaries. While each county has some unique changes specific to them, one common change made to all of our counties was to split out a narrow portion of the coastal/beach zone to isolate the unique weather conditions and hazards more common to that environment.

Los Angeles County: For now the only change is to split out two beach zones from the original zone 41. Two beach zones are needed due to significant weather and marine differences. The Malibu Coast is the only portion of the original zone 41 that is routinely impacted by Santa Ana winds. In addition, that zone is entirely south facing, meaning it is more exposed to long period southerly swells that can pose beach hazards such as high surf, coastal flooding, and rip currents. Several core partners were very enthusiastic about these changes.

Ventura County:

- A beach zone was created by splitting the Ventura County Coast zone (zone 40) into two sections.
- The Santa Monica Mountain Recreation Area zone (zone 46) was extended to its natural border in south central Ventura County. At the time this zone was created about 30 years ago it was thought that zone boundaries couldn't cross county lines. This resulted in a significant section of the western Santa Monica Mountain Recreation Area being in the Ventura County Coastal Valley zone (zone 45) even though it was not a valley and the weather conditions were obviously much more similar to the rest of the Santa Monica Mountain Recreation Area zone to the east. This change simply connects the two portions of the Santa Monica Mountains.

- Ojai Valley was split out from the Ventura County Interior Valley zone (zone 44) due to significant differences in weather conditions from the rest of the zone. The Ojai Valley is typically excluded from Santa Ana winds, resulting in significantly fewer Red Flag days. Having this zone separated will be a huge benefit to the fire weather community. Also, in winter the Ojai Valley experiences much colder nighttime temperatures, resulting in crop damages and other impacts that the rest of that zone rarely experiences.
- The Lake Casitas zone was separated from zone 44 due to significant differences in winds and fire weather conditions. This zone experiences many more northerly wind events due to its proximity to the Santa Ynez Range, resulting in potentially more Red Flag and/or High Wind events.
- The Santa Ynez Range (see next section) naturally extends east into Ventura County and this portion has been included with the proposed eastern Santa Ynez Range zone.

Santa Barbara County: Several changes were made with significant input from core partners.

- The Santa Barbara County South Coast zone (zone 39) was split into an east and a west zone due to frequent and significant differences in winds as a result of Sundowners in that area. There are many times when winds impact the western portion of the zone when it's calm in the eastern portion, resulting in frequent differences in wind and fire weather hazards.
- The Santa Ynez Mountain range in southern Santa Barbara County represents a major climatological change in weather regimes between the north and south. And it's even much different from the rest of the Santa Barbara County Mountains to the north. For this reason (and with enthusiastic support from core partners) the Santa Ynez range was split out from the Santa Barbara County Mountain zone (zone 52). And because the Santa Ynez Range itself experiences significant differences in weather from west to east it was split into two zones, similar to the split in the Santa Barbara County South Coast (referenced above). The eastern portion continues past the Ventura County line (as mentioned in the Ventura County section above).
- A small portion of the Santa Ynez Valley zone (zone 36) was transferred to the Santa Barbara Mountain zone (zone 52) due to the weather in this area being more representative of the mountain zone than the valley. This was a core partner request.
- As with other counties and for similar reasons, a beach zone was created for the northern portion of Santa Barbara County by splitting the Santa Barbara County Central Coast zone (zone 35) into two sections.

San Luis Obispo County: There are several changes in addition to the beach zone mentioned earlier.

- A beach zone was created by splitting the San Luis Obispo County Coast zone (zone 34) into two sections.
- A Santa Lucia Mountains zone was created in San Luis Obispo County due to the frequent occurrence of dry and gusty northeast winds (often referred to by residents there as Santa Lucia winds) during offshore wind events. There have been times when

Red Flag Warnings have been needed in this zone but not in the adjacent zones so the creation of this zone will minimize unnecessary Red Flag coverage. This zone encompasses the more mountainous parts of the previous San Luis Obispo County Coast zone (zone 34) as well as the western (and more mountainous) portion of the previous San Luis Obispo County Interior Valley zone (zone 37). The Santa Lucia Mountain zone also includes the Irish Hills which is a small circular shaped area near Diablo Canyon Nuclear Power Plant that is disconnected from the primary zone to the east. The hills around the power plant usually mimic the weather conditions at other locations in that zone.

- Per a core fire partner request, a slight modification was made to the San Luis Obispo Mountains zone (zone 51) to encompass a portion of the San Luis Obispo County Interior Valleys zone (zone 37) that is more representative of the mountain weather regime.
- A Southern Salinas Valley zone has been created due to significant differences in weather from the rest of the San Luis Obispo County Interior Valleys zone (zone 37) in which it previously resided. The valley is often much cloudier and foggy from the night and morning marine layer than the rest of the zone and the creation of this zone will minimize unnecessary hazards in the remainder of the zone.

Collaboration:

- NWS LOX communicated the planned zone changes with the Warning Coordination Meteorologists from their backup NWS offices, Monterey and San Diego, respectively. The Analyze, Forecast and Support Office (AFS) was informed of the zone change request and helped with finalizing the Service Change Notice, written justification, and shape files necessary for this change.
- Both the National Hurricane Center and the National Tsunami Warning Center were notified of the intended zone changes for coastal zones. Breakpoints were discussed and new zone numbers and coordinates were exchanged.

Old zone boundaries in red/New zone boundaries in magenta









