

Thomas Fire & Air Quality

Board of Directors Santa Barbara County Air Pollution Control District

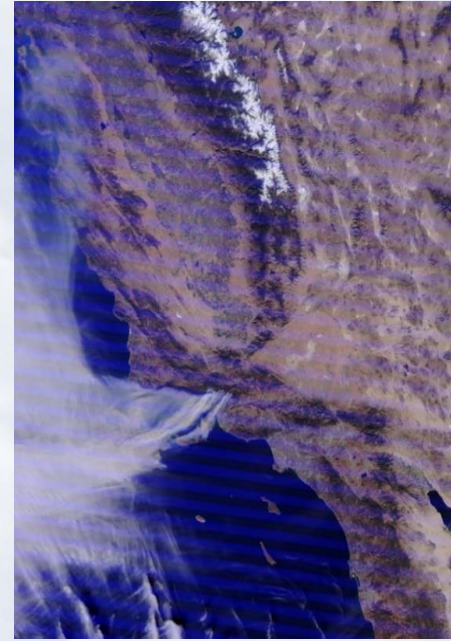
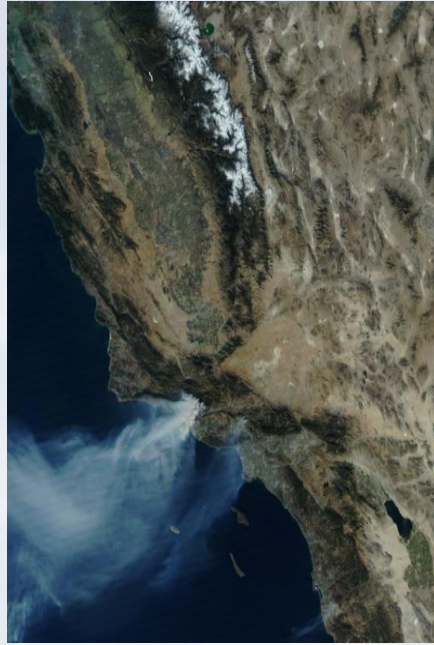
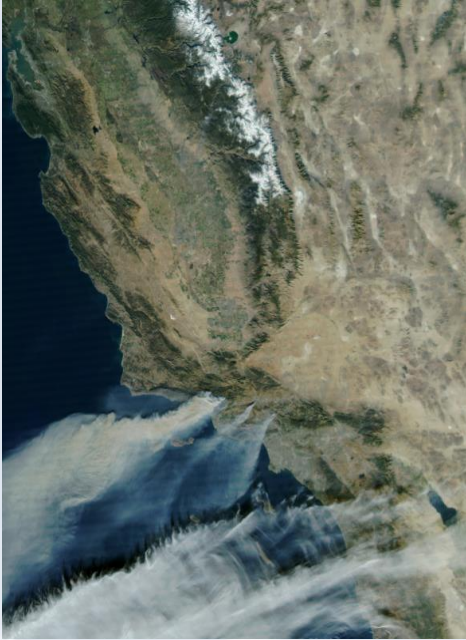
Our Mission: To protect the people and the environment of Santa Barbara County from the effects of air pollution.

Aeron Arlin Genet
Director / APCO

January 18, 2018



Not Our Typical Wildfire Smoke Pattern



Air Quality Conditions (PM2.5)

	Tue	Wed	Thurs	Fri	Sat	Sun	Mon	Tue	Wed	Thurs	Fri	Sat	Sun	Mon
	12/5	12/6	12/7	12/8	12/9	12/10	12/11	12/12	12/13	12/14	12/15	12/16	12/17	12/18
Santa Barbara														
Santa Maria														
Lompoc														
Goleta								N/A						
Carpinteria														
Santa Ynez														
Los Alamos														

Thomas Fire started evening of December 4
Unhealthy air quality conditions December 5 - 17



Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0 to 50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51 to 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151 to 200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 to 300	Health alert: everyone may experience more serious health effects.
Hazardous	301 to 500	Health warnings of emergency conditions. The entire population is more likely to be affected.

Monitoring Stations and E-BAMs

- 13 days of unhealthy air quality and ash
 - Outdoor and indoor
- Deployed E-BAMs in Carpinteria, Los Alamos, and Santa Ynez
 - We acquired 2 E-BAMs from California Air Response Planning Alliance
- E-BAMs were deployed to enhance our permanent network, and better reach specific communities.
- Partnered with agencies throughout the region:
 - City of Carpinteria
 - Los Alamos Library
 - Santa Ynez Airport



Interagency Coordination is Key

- APCD connected into the Emergency Operations Center
 - 9 am briefing meeting
 - 11 am calls with elected officials
 - 4 pm Town Hall meetings
- Joint messaging with SB County Public Health
 - Interviews, live videos with Dr. Dean
- US Forest Service assigned an Air Resources Advisor

Our Advisory Process

- Work with County Public Health Department
- Distribution list:
 - Media (TV, news print & radio)
 - general public who sign up to receive advisories
 - APCD Board of Directors
 - Social Media: Twitter (2 accounts) and Nextdoor
 - National Weather Service
 - Post on California Smoke Blog
- Point people to Today's Air Quality page, forecasts, and forecast maps (new with this incident)
- Created several new webpages

News Releases

12-29-17 [Air Quality Watch Cancelled for Santa Barbara County](#)

12-22-17 [Air Quality Warning Downgraded to Air Quality Watch](#)

12-20-17 [Do Not Use Leaf Blowers Air Pollution Control District Can Take Enforcement Action](#)

12-15-17 [Air Quality Warning in Effect Through Weekend](#)

12-14-17 [Smoke Continues to Impact Santa Barbara, SLO, and Ventura Counties](#)

12-13-17 [Health Notice to Local Landscapers](#)

12-13-17 [More Air Quality Information Now Available](#)

12-12-17 [Air Quality Warning Still in Effect](#)

12-10-17 [Unhealthy Air in Santa Barbara County – Air Quality Warning Continues](#)

12-08-17 [Air Quality Warning Remains in Effect Through Weekend](#)

12-07-17 [Unhealthy Air Quality Continues in Santa Barbara County](#)

12-06-17 [Unhealthy Air Quality in Santa Barbara County](#)

12-05-17 [Air Quality Warning for Santa Barbara County](#)

Website Traffic

Overview

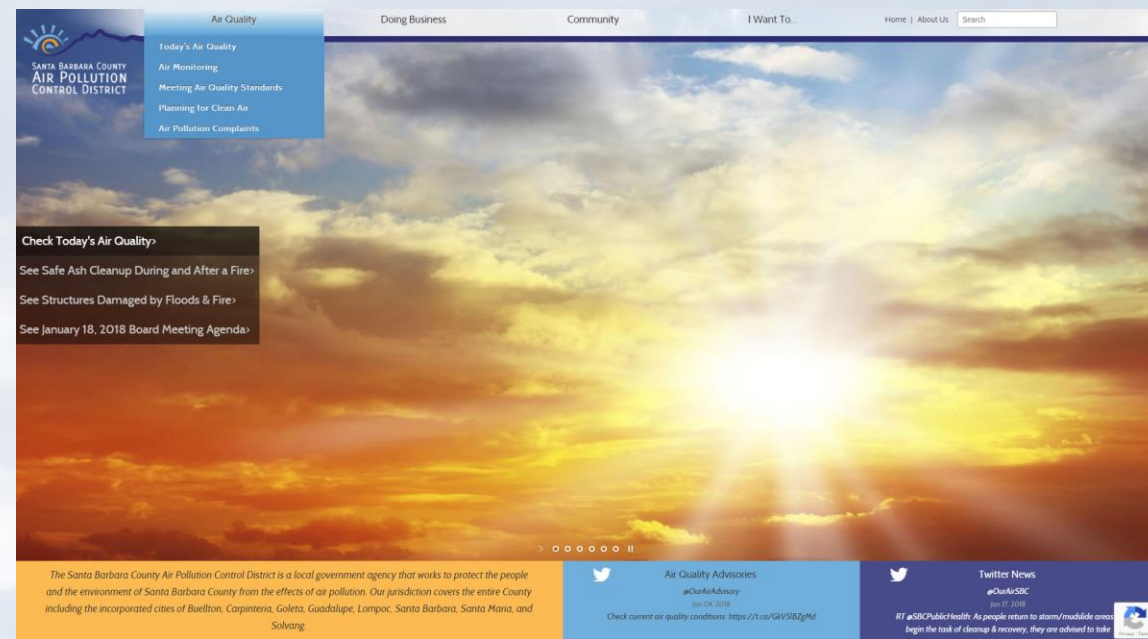
- Peak traffic up 200-fold (200 per day to 40,000+ per day)
- More than 1 million page views in December 2017
 - compared to 8,000 in December 2016 and 170,000 for the previous 11 months)
- More than 63,000 new users

Sources of Traffic

- Twitter #3 source
- Nextdoor was #12
- County website and popular news websites also high in referrals

Page Views

- Today's Air Quality webpage the most popular
- Smoke and Health and Ash Cleanup webpages also popular
- Webpages showing historical data also popular
- More than half of visits were on mobile devices (our website is compatible)



Website: Forecasts and Maps

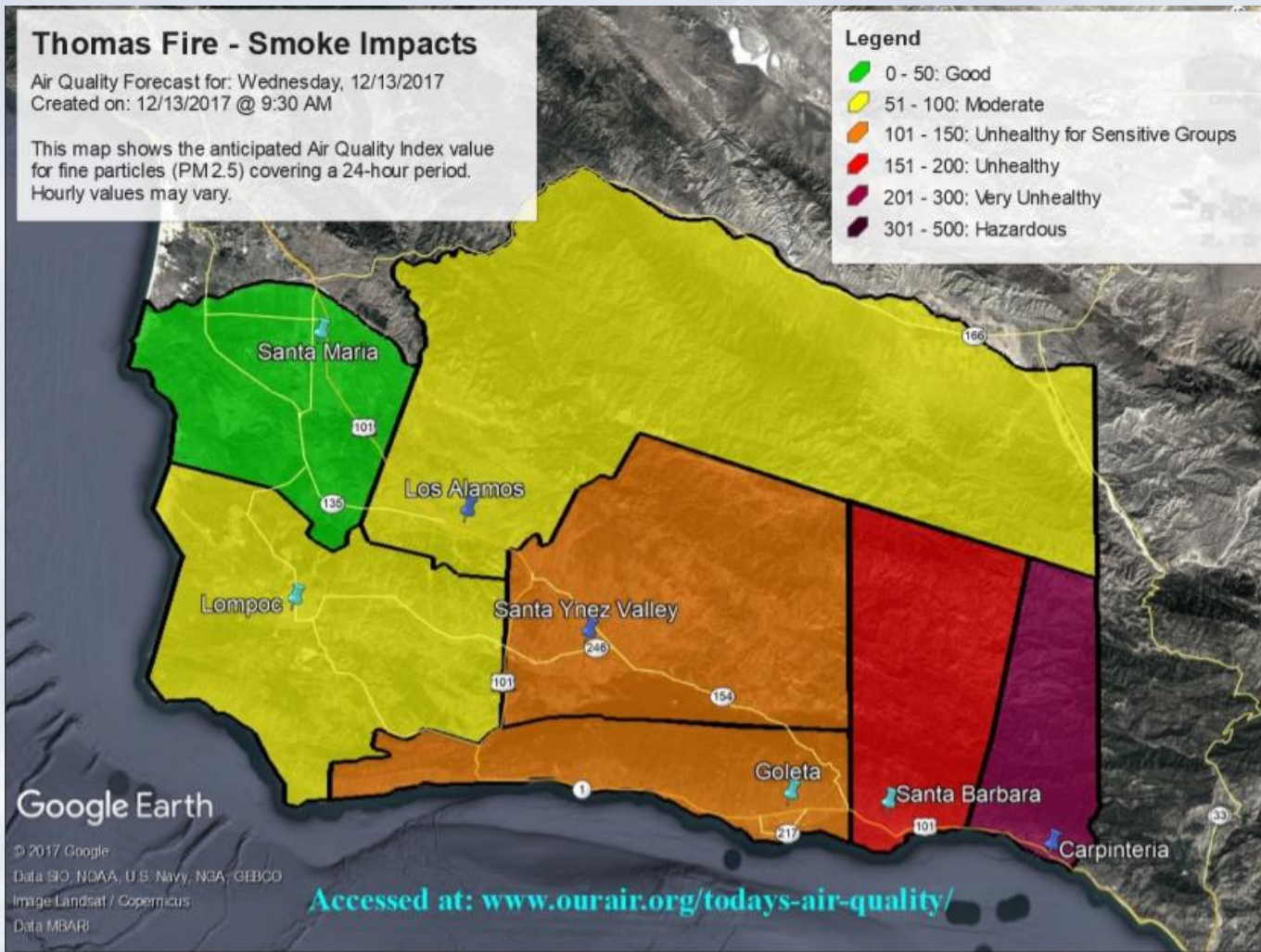
Thomas Fire - Smoke Impacts

Air Quality Forecast for: Wednesday, 12/13/2017
Created on: 12/13/2017 @ 9:30 AM

This map shows the anticipated Air Quality Index value for fine particles (PM2.5) covering a 24-hour period. Hourly values may vary.

Legend

- 0 - 50: Good
- 51 - 100: Moderate
- 101 - 150: Unhealthy for Sensitive Groups
- 151 - 200: Unhealthy
- 201 - 300: Very Unhealthy
- 301 - 500: Hazardous



© 2017 Google
Data: EPO, NOAA, U.S. Navy, NGA, GEBCO
Image: Landsat / Copernicus
Data: MBARI

Accessed at: www.ourair.org/todays-air-quality/

Smoke Forecast Outlook issued December 13, 2017 at 11:59 AM EST

Outlook for Thomas Fire

Smoke: Thomas Fire smoke will continue to affect the South Coast communities from Goleta to Carpinteria and into western and northern sections of Ventura County, including the Hwy 101, 150 and 33 corridors. Improved conditions over western Santa Barbara County. Minimal impacts expected in San Luis Obispo County.

Fire: Fire is active in these extremely dry conditions along the Santa Ynez ridgeline above Montecito and Summerland and in the backcountry of the Los Padres NF about 13 miles NW of Ojai. 237,500 acres, 25% contained

Other: NEW MONITORS installed in Los Alamos and Carpinteria. Forecasts are for fine particulate matter (PM2.5). Larger smoke particles (PM10 and ash) and smoke aloft will make air quality conditions LOOK worse and lead to poor visibility, but will not have the same health impacts. A break in the large-scale offshore wind pattern is expected late Friday afternoon with dramatic improvement in smoke impacts across the region.

Daily AQI Forecast for Dec 13, 2017



Station	Yesterday hourly	Tue 12/12	Forecast Comment for Today -- Wed, Dec 13	Wed 12/13	Thu 12/14
Santa Maria			Likely only moderate smoke impacts, poorer to the S.		
Los Alamos			Moderate air quality, becoming good Thursday.		
Lompoc			Smoke to the E, light onshore moderating impacts W.		
Santa Ynez Valley	No hourly data		USG to Unhealthy conditions expected.		
Goleta	No hourly data		Slightly improved today, better Thursday.		
Santa Barbara			Unhealthy air quality conditions through at least Thursday.		
Carpinteria			Very unhealthy, occasionally hazardous conditions		
Ojai			Occasionally unhealthy, better than previous days.		
El Rio (Ventura-Oxnard)			Good to moderate, increasing this evening		
Piru			Good		
Thousand Oaks			Good		

Issued Dec 13, 2017 by Mike Broughton - Air Resources Advisor michaelbroughton@fs.fed.us

Air Quality Index (AQI)	Actions to Protect Yourself
Good	None
Moderate	Unusually sensitive individuals should consider limiting prolonged or heavy exertion.
USG	People within Sensitive Groups* should reduce prolonged or heavy outdoor exertion.
Unhealthy	People within Sensitive Groups* should avoid all physical outdoor activity.
Very Unhealthy	Everyone should avoid prolonged or heavy exertion.
Hazardous	Everyone should avoid any outdoor activity.

Disclaimer: Forecasts may be wrong; use at own risk. Use caution as conditions can change quickly. See your health professional as needed. Smoke sensitive groups should take appropriate precautions.

Additional Links

Spanish Materials

SB County APCD Retweeted



County of Santa Barbara en Español @csbenespanol · 20 Dec 2017

El pronóstico de la calidad de aire para el Condado de Santa Barbara a partir del @OurAirSBC: Se esperan buenas condiciones de calidad de aire el miércoles (12/20), y condiciones moderados el jueves (12/21) ourair.org/wp-content/upl... #ThomasFire

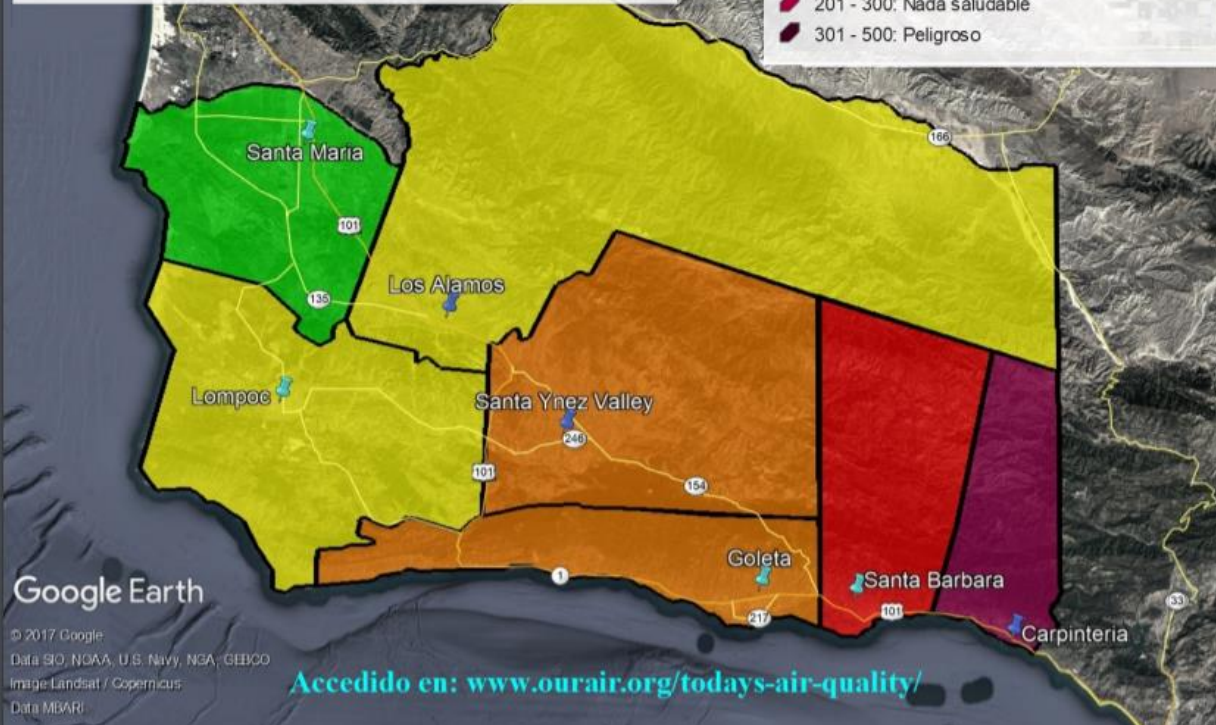
Incendio de Thomas – Impactos de Humo

Pronóstico de Calidad del Aire para: Miércoles, 12/13/2017
Creado en: 12/13/2017 @ 9:30 AM

Este mapa muestra la calidad del aire anticipado para partículas finas (PM 2.5) para el periodo de 24 horas. Los niveles por hora pueden variar.

Legend

- 0 - 50: Bueno
- 51 - 100: Moderado
- 101 - 150: No saludable para grupos sensibles
- 151 - 200: No saludable
- 201 - 300: Nada saludable
- 301 - 500: Peligroso



PARA DIFUSIÓN INMEDIATA
5 de diciembre de 2017

Contactos:

Susan Klein-Rothschild, Directora Adjunta del Departamento de Salud Pública del Condado de Santa Bárbara, (805) 896-1057
Lyz Hoffman, Funcionaria de Información Pública del Distrito de Control de la Contaminación Ambiental, (805) 961-8819

Advertencia sobre la Calidad del Aire para el Condado de Santa Bárbara

SANTA BÁRBARA, Calif. — El Departamento de Salud Pública del Condado de Santa Bárbara y el Distrito de Control de la Contaminación Ambiental del Condado de Santa Bárbara emitieron una Advertencia sobre la Calidad del Aire para el Condado de Santa Bárbara. El humo y las cenizas derivados del incendio Thomas que arde en el Condado de Ventura, están afectando la calidad del aire local y las condiciones pueden continuar durante los próximos días.

Accedido en: www.ourair.org/todays-air-quality/

Community and Media Awareness

Common questions:

- Indoor air quality?
- Wear an N95 mask?
- Leave the area?
- Short & long-term health effects?

Ash Clean Up Questions:

- When can I clean up ash?
- Cleaning cars and car filters?
- Cleaning heaters?
- Who should do the cleaning?
- What to do with ash in streets and landscape?



Lessons Learned

Staffing

- Designate roles & ensure key staff can work remotely
- Ensure materials can be translated quickly

Technology

- Prepare for increased web traffic
- Be responsive when technology fails – AQI hourly charts; replacement of BAM at Goleta station

Inter-Agency

- Connect with Emergency Operation Center immediately
- Ensure coordinated messages
 - Create templates that can be uploaded to website quickly
 - Understanding AQI vs. hourly concentration units
- Request Air Resource Advisor ASAP
- Have existing contacts for E-BAM deployment
-

Evergreen resources

- Issue advisory on understanding the AQI, clean rooms, HEPA filters / vacuums, and N95 masks



Positive Takeaways

- Appreciation of staff teamwork
- Appreciation of partnerships
- Hearing from the public on their appreciation of our efforts

Thank you!

Especially to the first responders, and other government agencies and non-profits, who worked so hard during the Thomas Fire and continue to work hard on the aftermath of the mudslide.