Alberto Nieto

From: Cakir, Halil <Cakir.Halil@epa.gov>
Sent: Wednesday, March 6, 2019 9:35 AM
To: Alberto Nieto; Chastain, Bryan
Cc: Adam Jenkins
Subject: FW: airnow.gov forecast map

This is a good example why we need an interpolation/prediction method with covariates!

Halil Cakir, Ph.D.
US EPA (Room C361-D)
OAQPS/AQAD/AQAG
Research Triangle Park, NC 27709
Ph. (919) 541-5390
OAQPS GIS apps and services

From: White, Johne
Sent: Wednesday, March 6, 2019 8:15 AM
To: Tussey, Lori <Tussey.Lori@epa.gov>; Dickerson, Phil <Dickerson.Phil@epa.gov>; Wayland, Michelle <Wayland.Michelle@epa.gov>; Wilkes, Chris <Wilkes.Chris@epa.gov>; Smith, Jason <Smith.Jason@epa.gov>
Subject: RE: airnow.gov forecast map

I know for observations they have….not sure about forecasts. Just takes time/$ to analyze/implement – especially on a changing basis. Hoping in the future Halil's solution will be better!

John E. White
AirNow Program Manager

US EPA Office of Air Quality Planning & Standards
109 T. W. Alexander Dr
C404-07
Research Triangle Park, NC 27711
919-541-2306
919-541-0242 (FAX)

www.airnow.gov

From: Tussey, Lori
Sent: Wednesday, March 06, 2019 8:10 AM
To: White, Johne <White.Johne@epa.gov>; Dickerson, Phil <Dickerson.Phil@epa.gov>; Wayland, Michelle <Wayland.Michelle@epa.gov>; Wilkes, Chris <Wilkes.Chris@epa.gov>; Smith, Jason <Smith.Jason@epa.gov>
Subject: RE: airnow.gov forecast map

John,

In the past, haven't they set up "fake" monitors to stop the interpolation from bleeding into the wrong areas? Fake isn't the right word, but I can't remember the proper term.

Thanks,

Lori

From: White, Johne
Sent: Tuesday, March 5, 2019 6:07 PM
To: Dickerson, Phil <Dickerson.Phil@epa.gov>; Wayland, Michelle <Wayland.Michelle@epa.gov>; Tussey, Lori <Tussey.Lori@epa.gov>; Wilkes, Chris <Wilkes.Chris@epa.gov>; Smith, Jason <Smith.Jason@epa.gov>
Subject: Fwd: airnow.gov forecast map

FYI

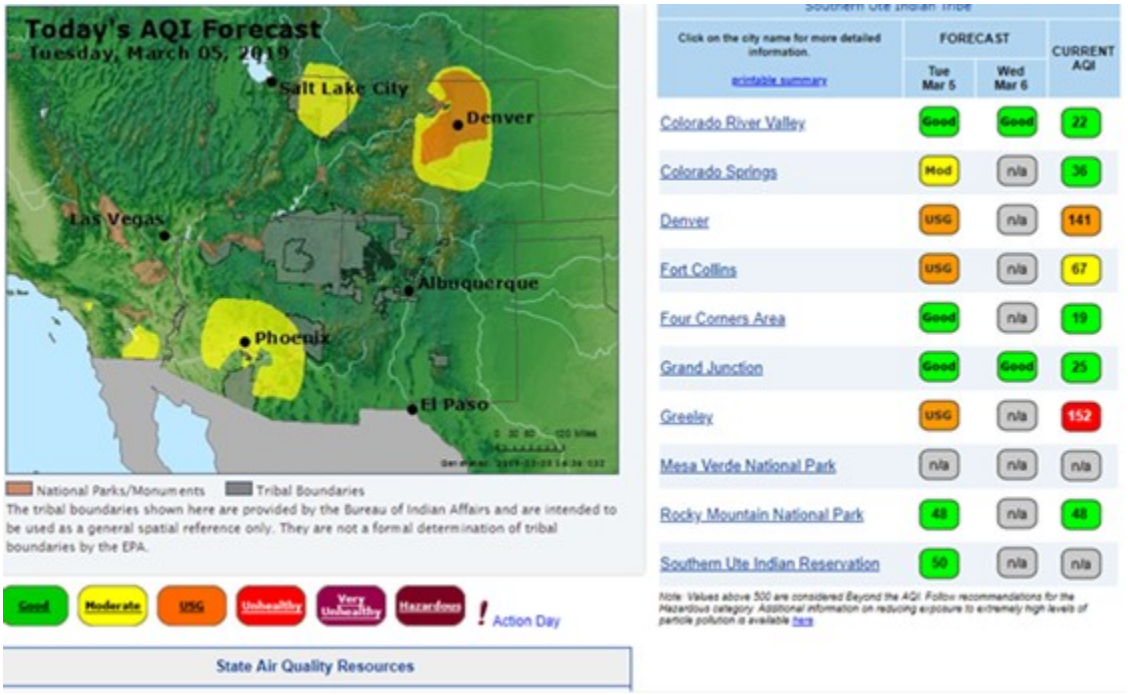
Sent from my iPhone

Begin forwarded message:

> **From:** Marcus Hylton <mhylton@sonomatech.com>
> **Date:** March 5, 2019 at 5:22:54 PM EST
> **To:** "Landes - CDPHE, Scott" <scott.landes@state.co.us>
> **Cc:** AIRNowInfo <AIRNowInfo@sonomatech.com>, "White, Johne" <White.Johne@epa.gov>
> **Subject: RE: airnow.gov forecast map**
>
> Hi Scott,
>
> We use a kriging interpolation for the forecast and current conditions maps on AirNow.gov. In general, this works well for regions without complex geography. However, the interpolation may perform poorly over regions such as in your example. Without a region set up near or around Breckenridge, forecasts and current conditions from the nearest cities will continue to be interpolated over the area.
>
> In an upcoming improvement to the AirNow website, we are including a point map in addition to the interpolated map, which should hopefully help to clear things up.
>
> -Marcus
>
> **Marcus Hylton**
> **Meteorologist**
> Sonoma Technology, Inc.
> 1450 N. McDowell Blvd., Suite 200
> Petaluma, CA 94954
> 707.665.9900
> sonomatech.com
>
> **From:** Landes - CDPHE, Scott [mailto:scott.landes@state.co.us]
> **Sent:** Tuesday, March 05, 2019 9:23 AM
> **To:** AIRNowInfo
> **Subject:** airnow.gov forecast map
>
> Hello,
>
> My name is Scott Landes and I supervise the Meteorology and Prescribed Fire Unit here at Colorado's Air Pollution Control Division. I hope this e-mail finds you well.
>
> We were alerted from an online news article that the town of Breckenridge was expecting unhealthy air quality: https://www.outtherecolorado.com/unhealthy-air-quality-warning-issued-in-parts-of-colorado/. We were confused as to where this information was coming from

considering that we had only forecasted USG for Denver, Fort Collins and Greeley, while Breckenridge lies well to the southwest at much higher terrain (for that matter, Breckenridge has no monitoring and we do not provide a daily forecast for them).

After some investigating, we realized that the source of this misinformation was the forecast map on airnow.gov which shows a forecast of USG well into the higher terrain southwest of Denver encompassing Breckenridge (see below).



That being said, why does the map display this? Is there a way to alter whatever algorithm creates these maps so the correct areas are represented?

Any information you could provide would be much appreciated.

Best,

--

Scott J Landes
Supervisor/Air Quality Meteorologist
Meteorology and Prescribed Fire Unit
Technical Services Program

303-692-3255
scott.landes@state.co.us

"Are you curious about ground-level ozone in Colorado? Visit our ozone webpage to learn more."