Canadian Wildfires – Summer 2023

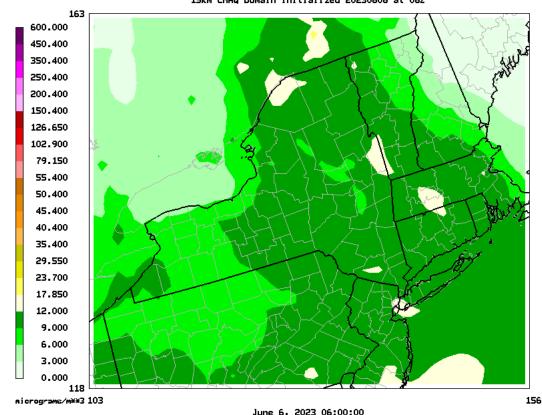
NACAA Public Outreach Committee Meeting 7/11/23

Example of why we need Air Quality forecasters to interpret air quality model output.

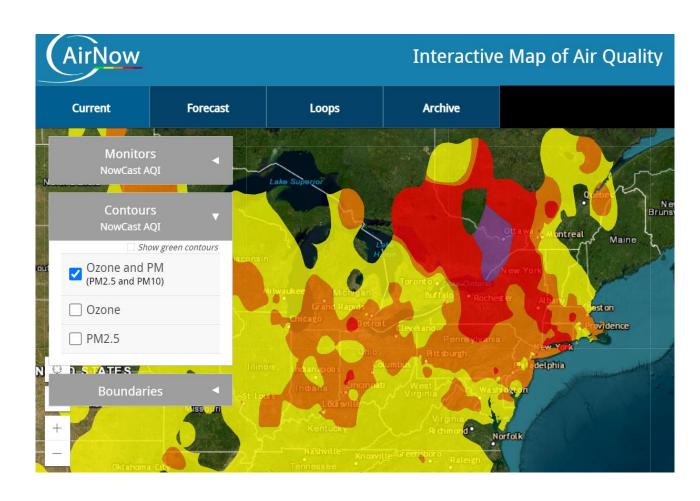
On June 6, 2023, the forecasters know that the CMAQ model on the left does not include Canadian wildfire smoke in its PM2.5 forecast calculations, therefore it was only forecasting 'Good' PM2.5 for most of NYS on June 6. As seen on the noontime AirNow map on the right, this clearly was not the case.

PM2.5 24HR Avg (00-23 CST) -- 15km NY wndw

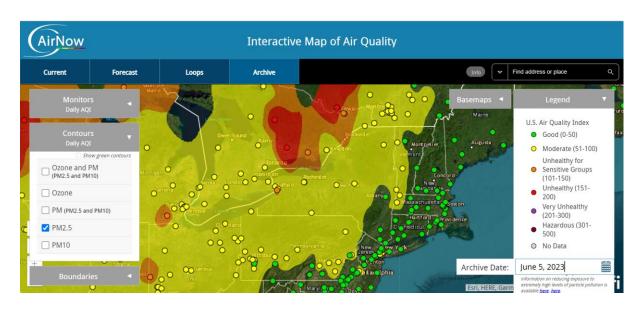
(c) 2019 BSI Environmental Modeling Center 15km CMAQ Domain Initialized 20230606 at 06Z

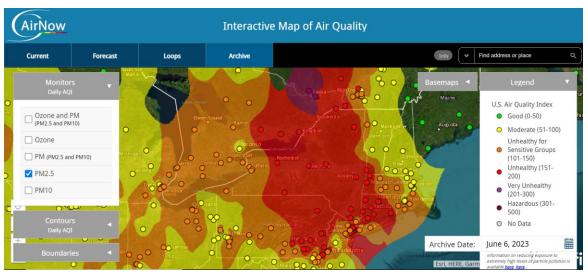


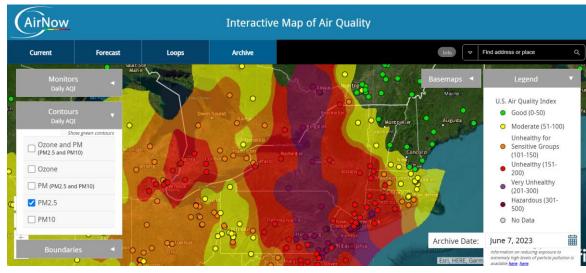
Min= 0.776 at (156,162), Max= 22.380 at (130,161)

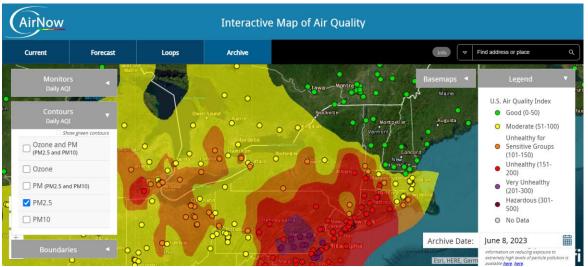


24-hr PM2.5 wildfire smoke impacts June 5 through 8, 2023

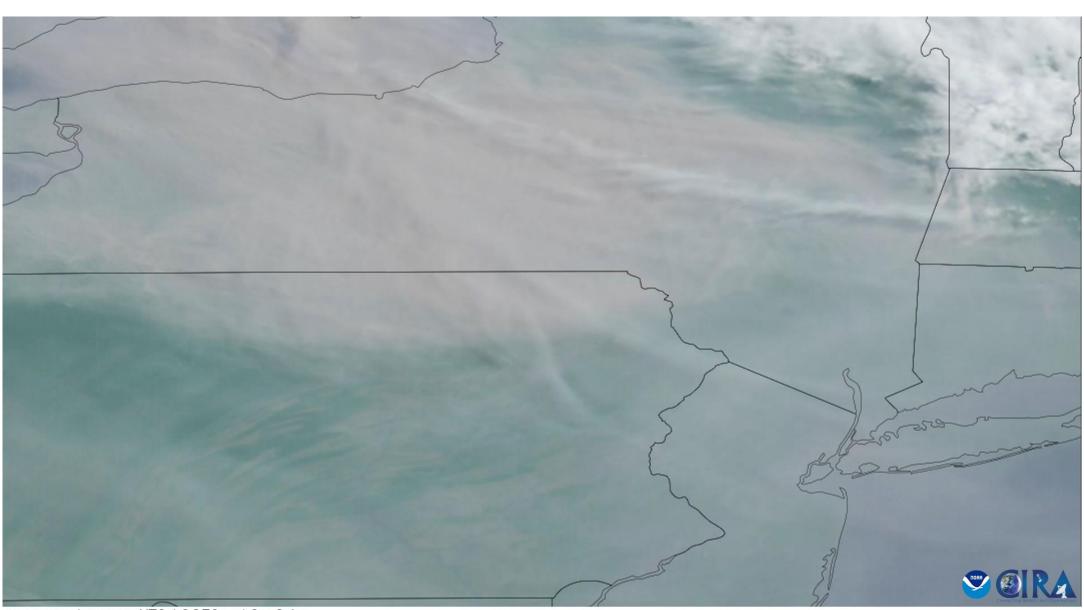






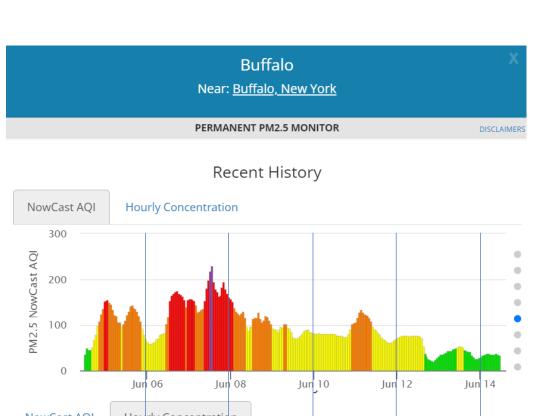


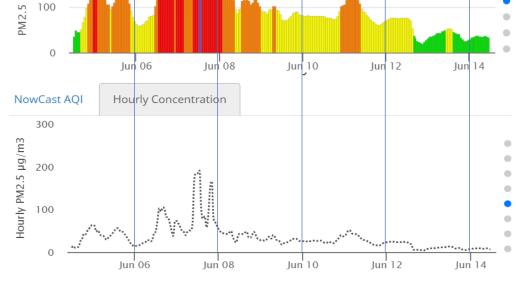
Satellite progression of the wildfire smoke on the morning of June 7, 2023



06-07-2023 | 12:30:28 UTC | GOES-16 | GeoColor

These graphs show how the EPAs NowCast PM2.5 weighted algorithms keep the NowCast AQI at elevated levels for several hours after the actual concentrations decrease.





These graphs show how the EPAs NowCast PM2.5 weighted algorithms keep the NowCast AQI at elevated levels for several hours after the actual concentrations decrease.

