Updates from the CDC Environmental Public Health Tracking Program

Health and Air Quality Applications Team Meeting

March 29, 2023

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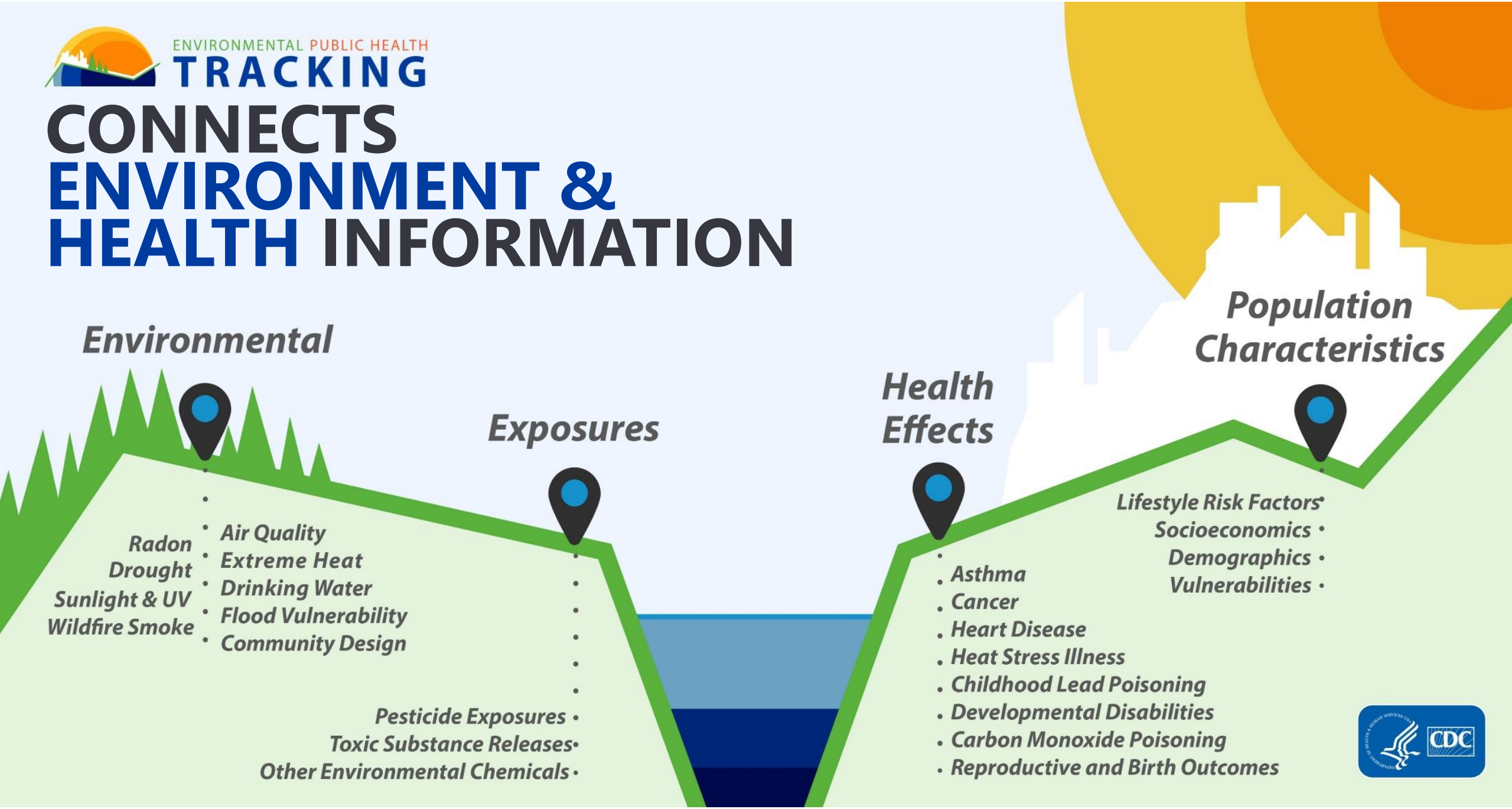
Emergency Management, Radiation, and Chemical Branch

Division of Environmental Health Science and Practice

ENVIRONMENTAL PUBLIC HEALTH TRACKING

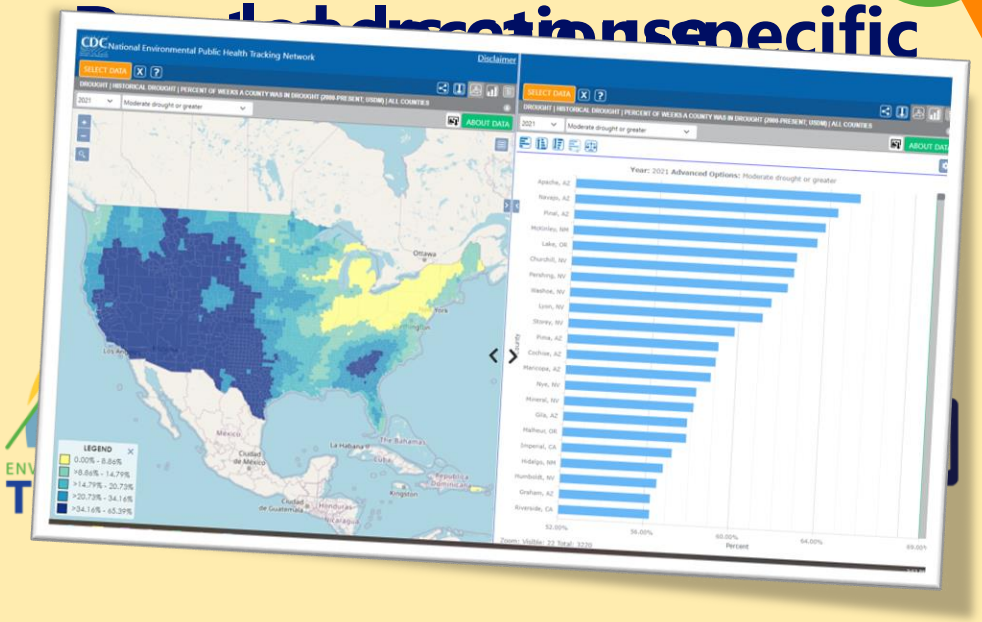
CONNECTS ENVIRONMENT & HEALTH INFORMATION



ENVIRONMENTAL PUBLIC HEALTH TRACKING

DELIVERS DATA RELEVANT TO YOUR NEEDS

Tracking makes standardized data easier to use.



Interactive Data Explorer
(maps, charts, and tables)

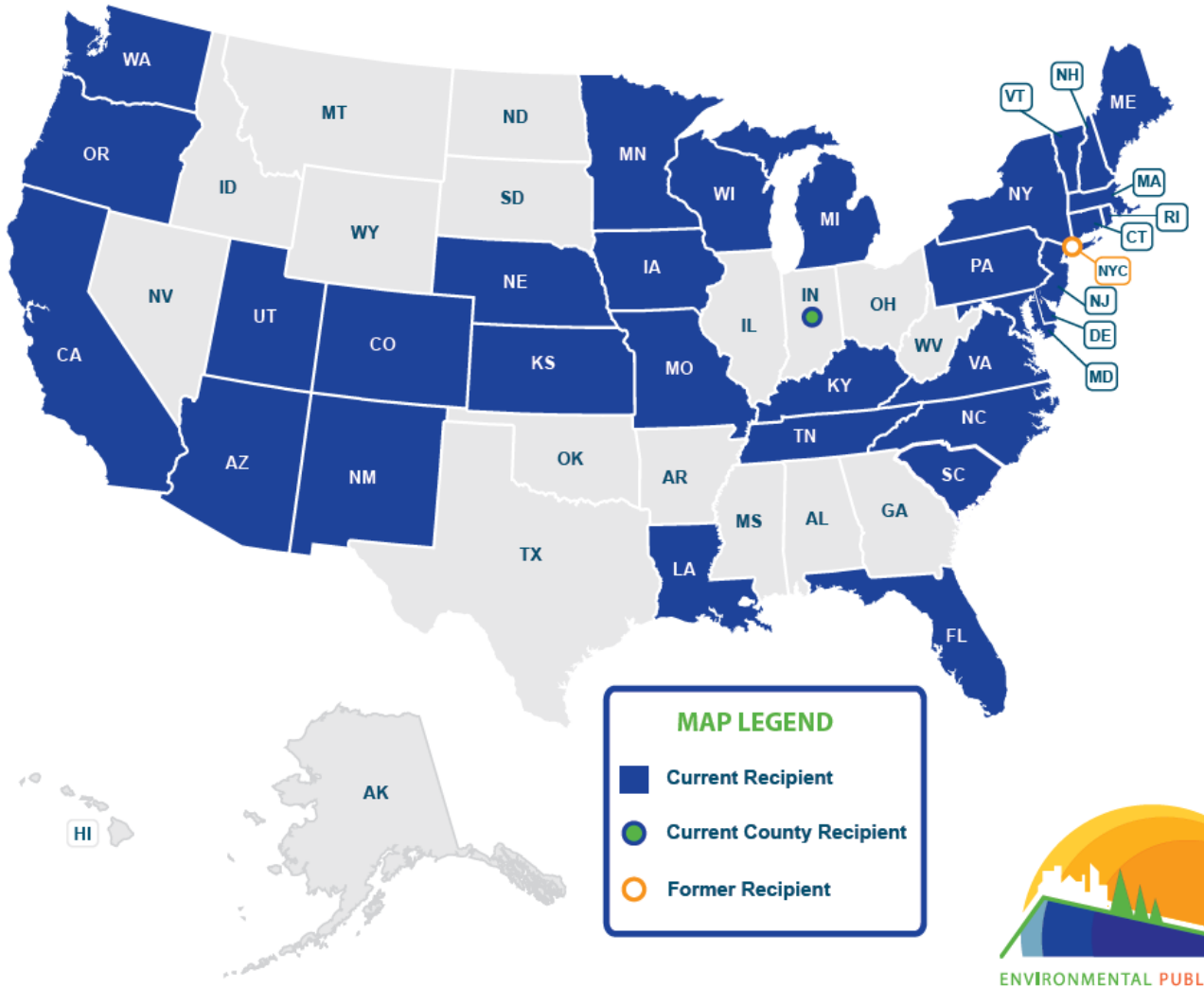
Dashboards

Application Program Interface
(API)

EH22-2202 Recipients

Welcome to our new additions!

- Delaware
- Marion County, Indiana
- Nebraska
- North Carolina
- Pennsylvania
- South Carolina
- Tennessee
- Virginia



August 2022

ENVIRONMENTAL PUBLIC HEALTH TRACKING

EH22-2202: Modernizing Environmental Public Health Tracking to Advance Environmental Health Surveillance

Purpose:

continue building capacity & expertise in environmental health surveillance

modernize data systems

empower information-driven decisions that affect health

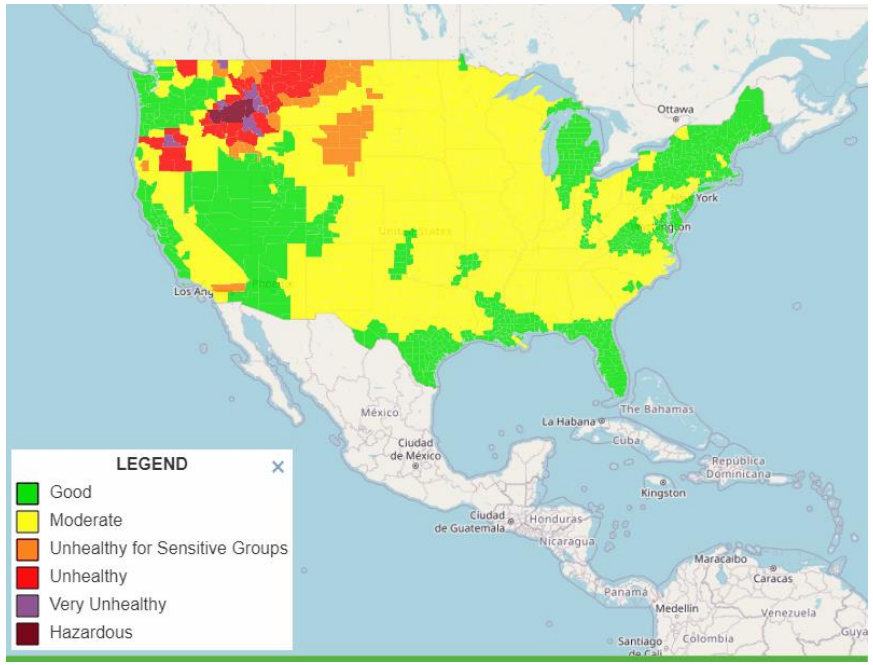
Learn more: https://www.cdc.gov/nceh/tracking/foa.htm

DEMONSTRATION

CURRENT WORK/OPPORTUNITIES FOR COLLABORATION

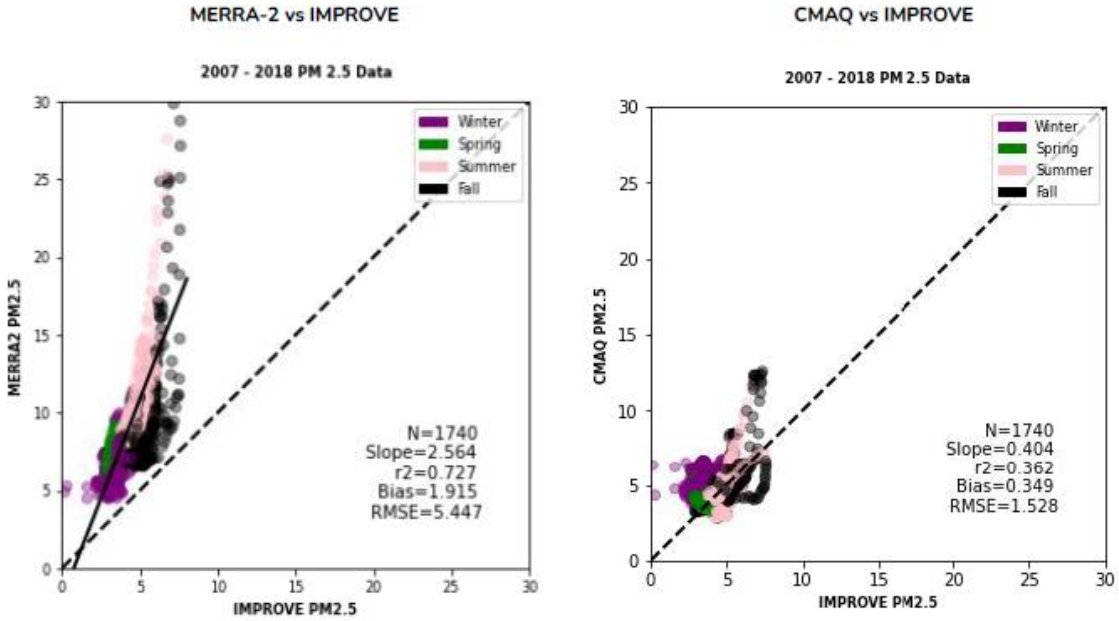
Recently Completed: NASA Collaborative Projects

New Forecasted Air Quality Measures on Tracking Portal



GEOS Composition Forecasting (GEOS-CF) system – Four-day county-level forecasts of PM2.5, NO_2, CO, O_3, SO_2

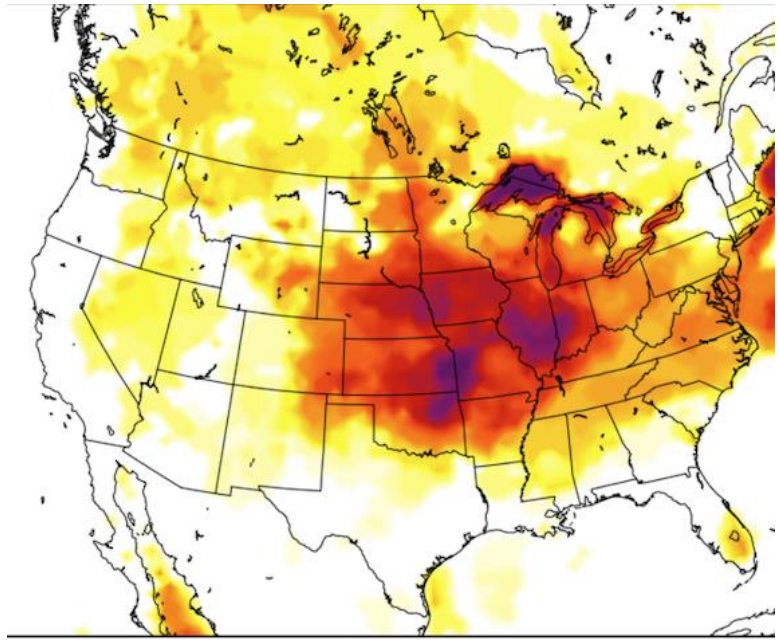
SSAI (Goddard contractor) intern evaluation of MERRA-2/CMAQ Accuracy



Comparison of MERRA-2 derived PM2.5 and CMAQ PM2.5 against AQS and IMPROVE monitors – MERRA-2 performs better in rural areas and during wildfires, CMAQ better in urban locations

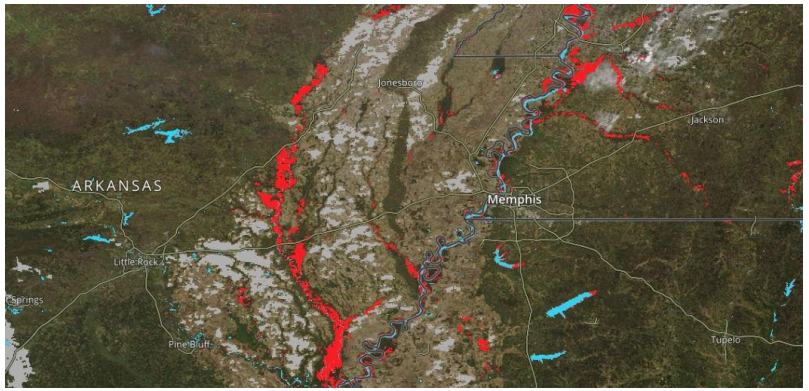
Ongoing – NASA Collaborative Projects

MERRA-2 derived Air Quality Measures



Developing daily county-level measures of PM2.5 (and constituents), CO, and SO_2. May also include weather variables in the future.

MODIS/VIIRS near real-time flood data

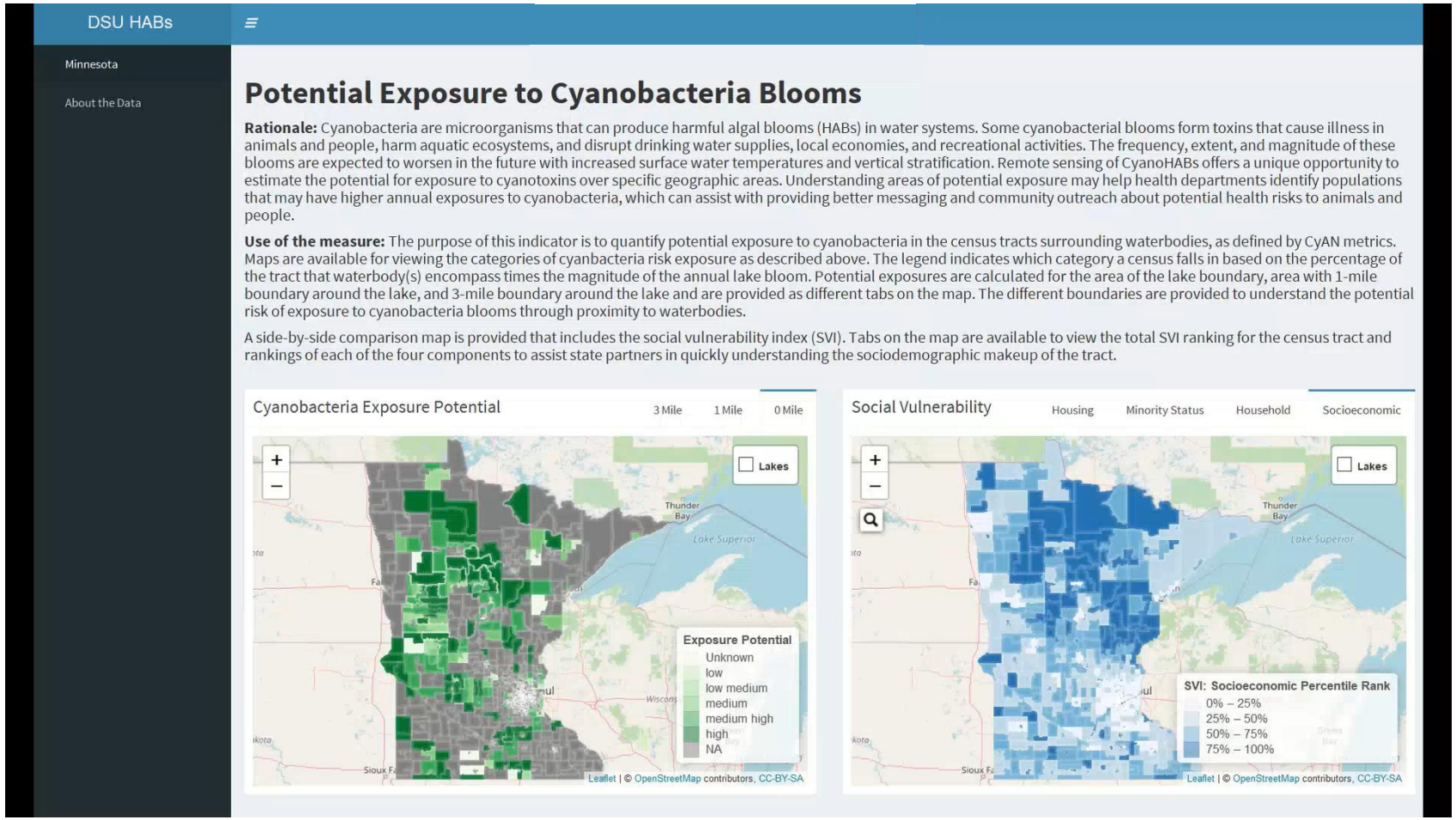


Developing daily census-tract estimates of flooded area under new NASA Goddard/Tracking IAA.

Preparing for TEMPO launch

Working with team at NASA Marshall and UAH to prepare for acquisition of TEMPO data. Focus will be on near real-time estimates O_3.

Ongoing – NASA Collaborative Projects



Developing measures that quantify the potential risk of exposure to cyanobacteria in the census tracts surrounding waterbodies, as defined by Cyanobacteria Assessment Network (CyAN) data metrics.

Looking Forward – Opportunities for Collaboration

- Characterize exposure, vulnerabilities, and health impacts to take public health action
  - Extreme weather events: tornado warnings and watches, probabilistic forecasting, power outages
  - Air quality: Additional real-time and satellite-derived sources
  - Climate change impacts: Identifying connections with health outcomes

- Using the Tracking Network as a Decision Support System and as a platform to host earth science data products and applications
  - Developing scripts/data pipelines to enable dissemination of near real-time NASA data on Tracking portal
  - Supporting state and local funding recipients in understanding, utilizing, and developing their own advanced data streams (e.g., leveraging satellite data via NASA APIs)

Thank you!
Questions or Comments?

For more information, contact NCEH
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