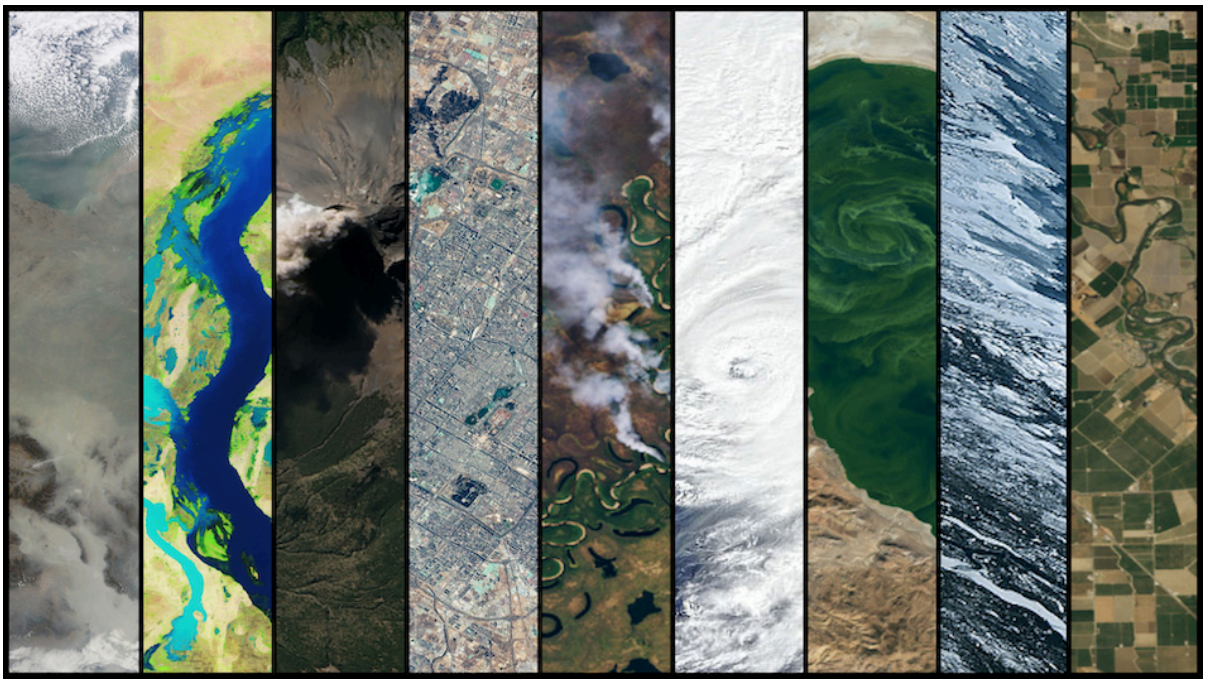
NASA's Satellite Needs Working Group Implementation Team

Welcome to the NSITE Quarterly Newsletter!

Welcome to the NASA Satellite Needs Working Group (SNWG) Implementation Team (NSITE) quarterly newsletter - your source for the latest updates on the assessment, implementation, and impact of SNWG solutions.

Issue 1, April 2026



Credit: NASA

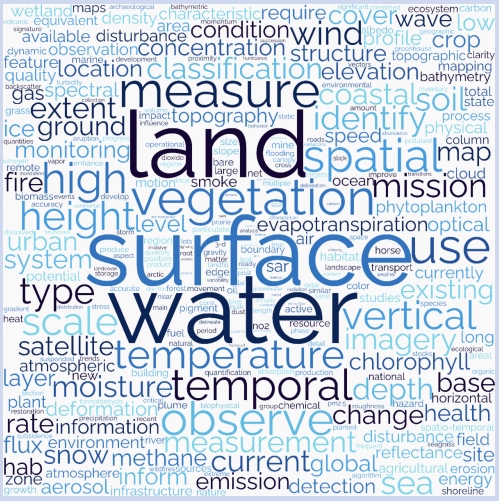
Since 2016, SNWG has systematically collected needs from across the U.S. civilian federal government every 2 years, turning to NASA to thoroughly assess those requests and create robust, operational solutions addressing some of our government's biggest Earth observation challenges. As NASA's SNWG Implementation Team Management Office, we facilitate the assessment of surveys, then the co-development, implementation, and broad stakeholder engagement for the identified solutions.

Agencies and solutions span thematic areas, from air quality to water quality, land processes to ice monitoring, and everything in between. Due to the variety of applications, we have amassed hundreds of partners from survey submitters, assessment participants, solution implementation teams, agency co-developers, beneficiaries and end users, and many other friends along the way. Despite your role (or roles!) within the vast landscape of SNWG, we are all here for **one common goal:**

To develop ground-breaking, innovative, high-quality Earth observation solutions that enable the federal government and other stakeholders to efficiently do their jobs, for the benefit of the American people.

As the NSITE Program Manager at Headquarters, I am very excited to launch this newsletter! We hope this series allows you to make new connections, stay updated, and celebrate our accomplishments. Please enjoy and stay in touch!

- Natasha Sadoff



2025: A Record Setting Assessment!

Last year marked the completion of the 5th SNWG survey cycle. We received **124 surveys** from **158 agency subject matter experts**, conducted **98 agency interviews**, coordinated with **122 experts** from across NASA, NOAA, and USGS to evaluate your needs, and identified **150 solutions** designed to address those needs.

Click here to learn more about the next survey, coming summer 2026!

Announcing Six New SNWG Solutions!

The 2024 SNWG assessment, designed to address the needs of federal agencies, concluded in May 2025 with the identification of six new solutions. These were among the most highly requested solutions to come out of the SNWG process to date, with the potential to meet hundreds of needs across the federal government and beyond. The solutions are as follows:

- 10-meter Harmonized Landsat and Sentinel-2 Product
- High Resolution Harmonized Land Surface Temperature Products (within HLS)
- High-Resolution Evapotranspiration Products (within HLS)
- Accessible 3D Topographic Mapping Software
- Second Generation of the Fire Information for Resource Management System
- Ongoing and Mobile Pandora Measurements in Smoky Regions (currently postponed)

As these solutions get underway, there will be opportunities for community and stakeholder involvement over the coming months and years.

Click here for more details about these solutions

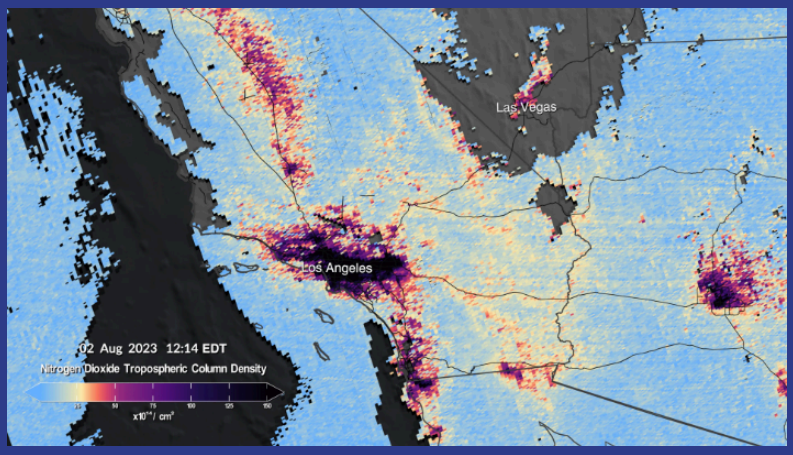
SOLUTION SPOTLIGHT

TEMPO Near Real-Time

SNWG has enabled the production of nitrogen dioxide, formaldehyde, and O2-O2 cloud products in near real-time, reducing data latency from six hours to less than two. Data were made publicly available in September, 2025. The solution project team has been working closely with stakeholders to improve their air quality monitoring, modeling, and forecasting capabilities, improving early warning air quality alert systems and protecting public health.

Click here to learn more about TEMPO NRT

Click here for the data release announcement



The map above of nitrogen dioxide gas concentrations created from TEMPO measurements show the extent of air pollution in the Los Angeles and Las Vegas areas on August 2, 2023. TEMPO can detect pollution that is typically hidden in reflected sunlight.

Credit: NASA

NSITE Team Member Highlights

Solution Project Lead

Carlos Del Castillo

Researcher
NASA Goddard Space Flight Center

Dr. Del Castillo develops and manages the **Global Algal Blooms Assessment Network (GABAN) solution**. A classically trained biologist with deep experience in combining modeling, field, laboratory, and remote sensing to study ocean biogeochemical processes, he is inspired by the mission of creating end-to-end, development-to-operation of Earth observing research and applications missions.

"The purpose of the SNWG is both necessary and very interesting for we welcome the opportunity to expand the already large return on investment of our satellite observations. Discussing the satellite needs of other agencies and how we can help with our assets is intellectually enticing."

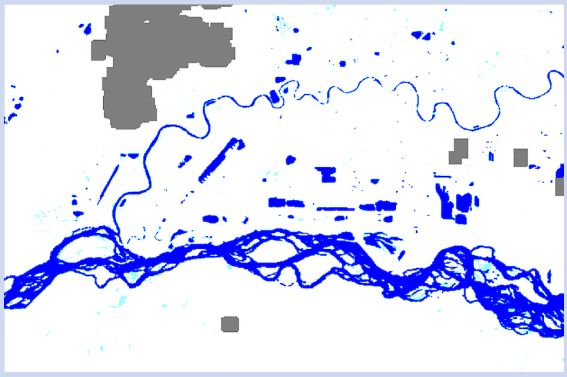
Agency End-User

Byeong Kim

Data and Modeling Unit Manager
Georgia Department of Natural Resources

As a participant at the **ARSET Health & Air Quality training series,** Dr. Kim was excited to learn the fundamentals of how satellite measurements are made and what to consider when using these datasets. He is most excited to use the **SPoRT Viewer**, **PBL products**, and **GEOS-5 Reanalysis products** for expanding the Georgia Department of Natural Resources air quality forecasting capabilities as well as for analyzing past air pollution events. NO_2 data from the SPoRT Viewer covers areas where his department does not have ground monitors. PBL products help to understand mixing conditions near the ground, and GEOS-5 Reanalysis products (including the forecast field) provide additional concentration fields for ozone and PM2.5.

Impact Story Highlight



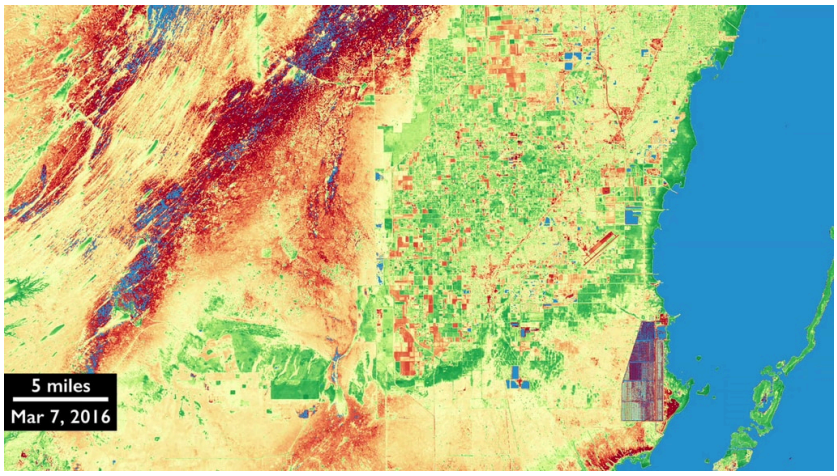
DSWx-HLS captures surface water extent across this remote region in Alaska on June 17, 2024

Credit: NASA

Protecting lives and livelihoods: More efficient streamflow monitoring in Alaska

USGS measures and provides river flow and water level data, essential for **protection of life and property, and water management. Traditional flow measurements are hazardous and costly,** especially in remote locations like Alaska. The Dynamic Surface Water Extent with Harmonized Landsat Sentinel-2 (DSWx-HLS) Solution helps USGS monitor streamflow, especially in remote areas like Alaska.

Click to learn more about how SNWG solutions help USGS



Announcing: A Virtual Harmonized Landsat Sentinel-2 Workshop
Tuesday, May 12 & Wednesday, May 13, 2026

NSITE invites you to a virtual workshop showcasing the Harmonized Landsat Sentinel-2 dataset (HLS). During this two-day event, NSITE will host an introduction to HLS, illustrate examples of HLS in use, demonstrate how to access and use HLS across a variety of platforms, and address your questions, challenges and needs.

Register Here!

Can't make it but still interested in HLS updates? **Sign up here**

Are you putting SNWG solutions into action?
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msfc-nsite-newsletter@mail.nasa.gov

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