

NASA DEVELOP – 2025 Spring Proposed Project List (v3. Sept 27, 2024)

NOTE: These project ideas are **tentative** and **subject to change**. This list may be updated throughout the application period.

The DEVELOP spring 2025 term will offer opportunities for in-person or virtual participation, by project. The work environment of the opportunity will be dependent on the project and DEVELOP location. Each location will conduct 1-3 projects for the spring 2025 term.

When selecting your preferred location(s), please pay attention to the type of opportunity selected based on the location and project offers on this document and how that aligns with your eligibility.

In-Person Project Opportunities

Federal Locations (Requires U.S. Citizenship)	# of Projects
AL – Marshall (Huntsville, AL)	2
CA – Ames (Mountain View, CA)	2
CA – JPL (Pasadena, CA)	2
MD – Goddard (Greenbelt, MD)	2
NC – NCEI (Asheville, NC)	1
VA – Langley (Hampton, VA)	2-3
Regional Locations (Open to U.S. Citizens & Non-U.S. Citizens)	
CO – Fort Collins (Fort Collins, CO)	1
GA – Athens (Athens, GA)	1
ID – Pocatello (Pocatello, ID)	1
MA – Boston (Boston, MA)	1
PUP – Pop-up Project at James Madison University (Harrisonburg, VA)	1
PUP – Pop-up Project at Miami University (Oxford, OH)	1
PUP – Pop-up Project at Mississippi State University (Starkville, MS)	1

Virtual Project Opportunities

Locations Hosting Virtual Projects (Open to U.S. Citizens & Non-U.S. Citizens)	# of Projects
AL – Marshall	1
CA – JPL	1
CO – Fort Collins	1-2
GA – Athens	2
ID – Pocatello	1-2
MA – Boston	1
MD – Goddard	1
NC – NCEI	1
VA – Langley	1-2

Notes: virtual projects are open to all candidates (US citizens and Foreign Nationals). Virtual projects continue to be **extremely** competitive.

Proposed Project List by DEVELOP Location

AL – Marshall

- ▶ **Trinidad & Tobago Climate:** Applying Earth Observations to Analyze Coastline Changes in Relation to Sea Level Rise ([in-person project](#))
- ▶ **New Orleans Urban Development** ([in-person project](#))
- ▶ **Southeast Los Angeles Health & Air Quality:** An Assessment of Air Quality in Relation to Southeast Los Angeles Communities' Proximity to the Interstate 710 ([virtual project](#))

CA – Ames

- ▶ **Florida Keys Ecological Conservation:** Assessing Estuarine Ecosystems in the Florida Keys to Monitor Tarpon habitat ([in-person project](#))
- ▶ **Fajardo River Water Resources:** Using Earth Observations to Evaluate Land Cover and Water Quality in the Fajardo River Watershed, Puerto Rico ([in-person project](#))

CA – JPL

- ▶ **Southern California Wildland Fires:** Assessing the Efficacy of Prescribed Burns in Southern California with ECOSTRESS and EMIT ([in-person project](#))
- ▶ **Amargosa Basin Water Resources:** Evaluating the Water Availability in the Amargosa Basin ([in-person project](#))
- ▶ **Project TBD** ([virtual project](#))

CO – Fort Collins

- ▶ **Flat Tops Wilderness Ecological Conservation:** Mapping Yellow Toadflax to Inform Invasive Species Management within the Flat Tops Wilderness ([in-person project](#))
- ▶ **Southern Rocky Mountain Ecological Conservation:** Mapping Mixed Mountain Shrub Communities to Inform Wildlife Management in Colorado ([virtual project](#))
- ▶ **Kenya Ecological Conservation:** Tracking Invasive Shrub Encroachment across Kenyan Savannas to Protect Endangered Hirola Antelope Habitat ([virtual project](#))

GA – Athens

- ▶ **Coastal South Carolina Water Resources:** Mapping Threatened Freshwater Wetlands Near Underserved Communities in South Carolina ([in-person project](#))
- ▶ **Dakotas Ecological Conservation:** Using NASA Earth Observations to Track the Encroachment of Woody Invasives into Dakotas Rangelands ([virtual project](#))
- ▶ **Zimbabwe Ecological Conservation:** Assessing Effects of Development and Drought on Tree Health to Protect White-Backed Vulture Nesting Sites in Zimbabwe ([virtual project](#))

ID – Pocatello

- ▶ **Sonoran Desert Ecological Conservation:** Identifying and Mapping Category 1 Invasive Species in the Sonoran Desert Using Harmonized Landsat and Sentinel-2 Data ([in-person project](#))
- ▶ **Northern Rockies Ecological Conservation II:** Determining the Distribution of Whitebark Pine in the Intermountain West Through Spectral Signature Classification and Pathogenic Analysis to Assess Forest Health Within the Region ([virtual project](#))

MA – Boston

- ▶ **Great Slave Lake Water Resources:** Using Earth Observations to Monitor Water Quality for Great Slave Lake in the Northwest Territories, Canada ([in-person project](#))
- ▶ **Portland Urban Development:** Leveraging Earth Observations and Sociodemographic Data to Assess Urban Heat Vulnerability in Portland and South Portland, Maine ([virtual project](#))

MD – Goddard

- ▶ **Southern Indiana Ecological Conservation II:** Assessing Canopy Cover Dynamics in Southern Indiana to Inform Songbird Habitat Restoration ([in-person project](#))
- ▶ **Project TBD** ([in-person project](#))
- ▶ **Southeastern US Agriculture:** Using Earth Observations to Assess the Drivers of Cotton Quality in the Southeast United States ([virtual project](#))

NC – NCEI

- ▶ **Upper Missouri River Basin Water Resources:** Estimating Fractional Available Water from Remotely Sensed Soil Moisture Datasets in the Upper Missouri River Basin ([in-person project](#))
- ▶ **Puerto Rico Ecological Conservation:** Mapping Land Cover to Inform Frog and Bird Species Distribution and Conservation Planning ([virtual project](#))

VA – Langley

- ▶ **Hampton Roads Health & Air Quality III:** Assessing Air Quality Impacts of Construction-Related Traffic in Hampton Roads ([in-person project](#))
- ▶ **Davidson Health & Air Quality:** Using Earth Observations to Determine Development Impacts on Air Quality and Heat in Support of Climate Resilience and Sustainability ([in-person project](#))
- ▶ **Boynton Beach Urban Development:** Assessing Urban Heat and Tree Canopy to Inform Urban Planning ([in-person project](#))
- ▶ **Chatham County Urban Development:** Mapping Urban Heat to Identify Priority Mitigation Areas in Chatham County, Georgia ([virtual project](#))

PUP – PUP at James Madison University

- ▶ **Harrisonburg Urban Development:** Assessing Land Change and Impervious Surface Distribution for Future Tree Planting in Harrisonburg, Virginia ([in-person project](#))

PUP – PUP at Miami University

- ▶ **Midwestern US Disasters:** Utilizing NASA Earth Observations to Assess Power Outages and Damages from Tornadoes in the Midwestern US ([in-person project](#))

PUP – PUP at Mississippi State University

- ▶ **Mississippi Delta Ecological Conservation:** Inundation Mapping Using Synthetic Aperture Radar and Optical Satellite Imagery for Wetland Monitoring and Conservation ([in-person project](#))