NASA DEVELOP – 2020 Spring Potential Project List

*NOTE: These project ideas are **tentative** and **subject to change**. The number of projects listed does not necessarily reflect the number of projects conducted at a given node. Expect that each node will conduct 1-2 projects for the 2020 spring term.*

ARC: California – Ames (Moffett Field, CA)

- *Central Cascades Disasters: Monitoring Forest Restoration to Mitigate Wildfire Risk in the Central Cascades of Washington Using Landsat and Sentinel Imagery*
- *San Francisco Bay Water Resources: Utilizing Landsat and Sentinel Imagery to Monitor the Water Quality Changes and Its Impacts on Marsh Habitat in the San Francisco Bay*

AZ: Arizona – Tempe (Tempe, AZ)

- *Philadelphia Health & Air Quality: Assessing Land Surface Temperature, Vegetation Cover, and Compounding Vulnerability Factors to Identify High Priority Areas for Cooling Initiatives in Philadelphia, Pennsylvania*

CO: Colorado – Fort Collins (Fort Collins, CO)

- *Colorado & New Mexico Water Resources: Mapping Wetland and Riparian Areas to Support Rio Grande Cutthroat Trout Habitat Restoration*
- *Ethiopia Food Security & Agriculture: Mapping Commercial Agriculture Expansion in the Lower Orno River Valley in Ethopia*

GA: Georgia – Athens (Athens, GA)

- *Costa Rica & Panama Ecological Forecasting II: Determining Protected Area Land Change in Costa Rica and Panama for Targeted Resource Management*

GSFC: Maryland – Goddard (Greenbelt, MD)

- *Ellicott City Disasters II: Enhancing a Statistical Flood Risk Model to Improve Early Warning Systems and Public Safety*
- *Gila Water Resources II: Implementing a Watershed Condition Platform to Assess Wildfire-induced Watershed Changes in New Mexico*

ID: Idaho – Pocatello (Pocatello, ID)

- *Great Basin Ecological Forecasting II: Assessing and Forecasting Live Fuel Moisture Content for the Eastern Great Basin to Improve Wildfire Timing and Severity Predicitions*

JPL: California – JPL (Pasadena, CA)

- *Great Lakes Water Resources II: Improving Wetland Change Mapping Using Optical and Radar Satellite Sensors to Assess Wetland Gain and Loss in the Greater Great Lakes Region*
- *California Water Resources: Improving Southern California Groundwater Assessments using Enhanced Neural Network Methods on GRACE and SAR Datasets for Water Resource Management*

LaRC: Virginia – Langley (Hampton, VA)

- *Lambayeque Water Resources: Assessing Water Resources to Inform Management of Peru's Coastal Forests*

- *Toa Baja Disasters: Understanding Tropical Storm Susceptibility in Puerto Rico's 'Underwater City' Using NASA Earth Observations to Assist the Municipality's Intervention Efforts*

MA: Massachusetts – Boston (Boston, MA)

- *Western Massachusetts Water Resources: Using the Landsat Series to Assess Flood Events Resulting from North American Beaver Reintroduction to Inform Biodiversity and Infrastructure Management*

MSFC: Alabama – Marshall (Huntsville, AL)

- *Conecuh National Forest Ecological Forecasting II: Utilizing Earth Observations to Forecast Land Cover Trends and Evaluate Corridors of the Endangered Gopher Frog in Southern Alabama*
- *Kenya Ecological Forecasting II: Using NASA Earth Observation to Enhance Drought Warning Systems and Develop Capacity to use the RHEAS model in Kenya*

NC: North Carolina – NCEI (Asheville, NC)

- *Coastal Pacific Northwest Water Resources: Developing a Coastal Salinity Index for the Pacific Northwest Using NASA Earth Observations*
- *Ohio River Basin Water Resources: Monitoring Flash Drought Potential in the Upper Ohio River Basin Using NASA Earth Observations*