**NASA DEVELOP National Program**

****University of Georgia

**Summer 2015**

**Short Title: Ocmulgee Ecological Forecasting II**

**Updated Abstract**

The Ocmulgee River corridor is home to unique species such as Atlantic sturgeon, short nosed sturgeon, black bear, and millions of migratory birds. It also holds a rich archeological record of Native American settlement. Over the years, this area has experienced increasing urbanization pressure. The NASA DEVELOP Ocmulgee River Water Resources and Ecological Forecasting team partnered with the Georgia Department of Natural Resources (GA DNR) to conduct a project focused on conserving the Ocmulgee River corridor. The goal of this project was to analyze land cover trends over the past 15 years using National Land Cover Dataset (NLCD) classifications and recent Landsat 8 images to predict future changes within the Ocmulgee River valley. With this goal in mind, a current land cover map was created and the team performed a time-series analysis. Threatened and endangered species habitats and hydrologic characteristics were overlaid with the classification maps to identify areas of concern. Using the results of this project, the GA DNR can prioritize conservation of high risk areas and identify areas of future concern.