



# ORANGE COUNTY SPECIAL PROTECTION AREA (SPA) TECHNICAL STUDY AND IMPLEMENTATION

## PROJECT DESCRIPTION

In partnership with Drummond Carpenter, PLLC, AEI provided assistance to the Orange County Environmental Protection Division in support of determining the scientific justification for establishing two new regulatory environmental overlays or 'Special Protection Areas' (SPAs) in the Shingle Creek and Upper St. Johns River basins. AEI was specifically tasked with analyzing the ecological significance of the natural communities (uplands and wetlands), wildlife, and plants and to evaluate historic to future trends in land use, population change and climate change impacts within the two proposed SPA areas. These analyses also included a review of existing protections and regulatory mechanisms to identify gaps that could be addressed through an SPA. AEI gathered and reviewed hundreds of articles and publications to identify the best available data to inform these analyses. This project required close coordination and communication with County staff, advisory boards, the county commission, and public stakeholders. AEI prepared separate reports for each basin (Shingle Creek and Upper St. Johns River) describing the findings of the study and developed a series of presentations to convey the findings to stakeholders and county leadership. AEI constructed a spatial landscape assessment model to overlay numerous geospatial datasets to arrive at a defensible geographic boundary for areas within the proposed SPA that were most vulnerable and identified as in most need of critical protection. AEI is also assisting with the development of the new ordinance and code language that will become part of County code if the ordinance is adopted. To ensure ease of code enforcement, case studies are being developed to test proposed code language in the basins.

## OUTCOMES

This project combined environmental analyses, literature review, geospatial services and stakeholder engagement to informing planning and management recommendations for two proposed SPAs with varying landscape characteristics. This project highlights AEI's commitment in using scientific methodologies in developing policy that balanced smart growth with natural resources conservation.

## PROJECT DETAILS




### PROJECT CLIENT:

Orange County via Drummond Carpenter, PLLC

### PROJECT LOCATION:

Orange County, FL

### SERVICE LINE AREAS:

-  Coastal Management & Planning
-  Ecological Services
-  Geospatial Services

### EXPERTISE:

- Ecological Planning
- Policy Development
- Stakeholder Engagement
- Spatial Modeling
- Land Use Mapping