

## 2. Study Area Guiding Principles

*The recommended study area is intended to meet the purpose and need of the project and minimize impacts to the social, cultural, natural and physical environment.*

A study area is a large area that is wide enough to contain several options for transportation improvements. The following “Guiding Principles” were used to identify the general study area within which a range of alternatives would be evaluated:

- Follows, where feasible, existing road alignments through environmentally sensitive areas;
- Minimizes direct impacts to wetlands;
- Minimizes impacts on springshed and ground water recharge areas;
- Serves an identified long-term regional transportation need;
- Attempts to improve the connectivity of existing wildlife areas;
- Relieves or removes traffic demands on SR 46 and provides a North-South connection from SR 46 to US 441 with limited interchanges;
- Minimizes impacts to habitat and species;
- Avoids, or mitigates if required, impacts on conservation lands and their proper management;
- Seeks to minimize impacts on existing neighborhoods and residential communities; and,
- Does not encourage or promote additional development from already approved land uses.

## 3. Composite Constraint Mapping

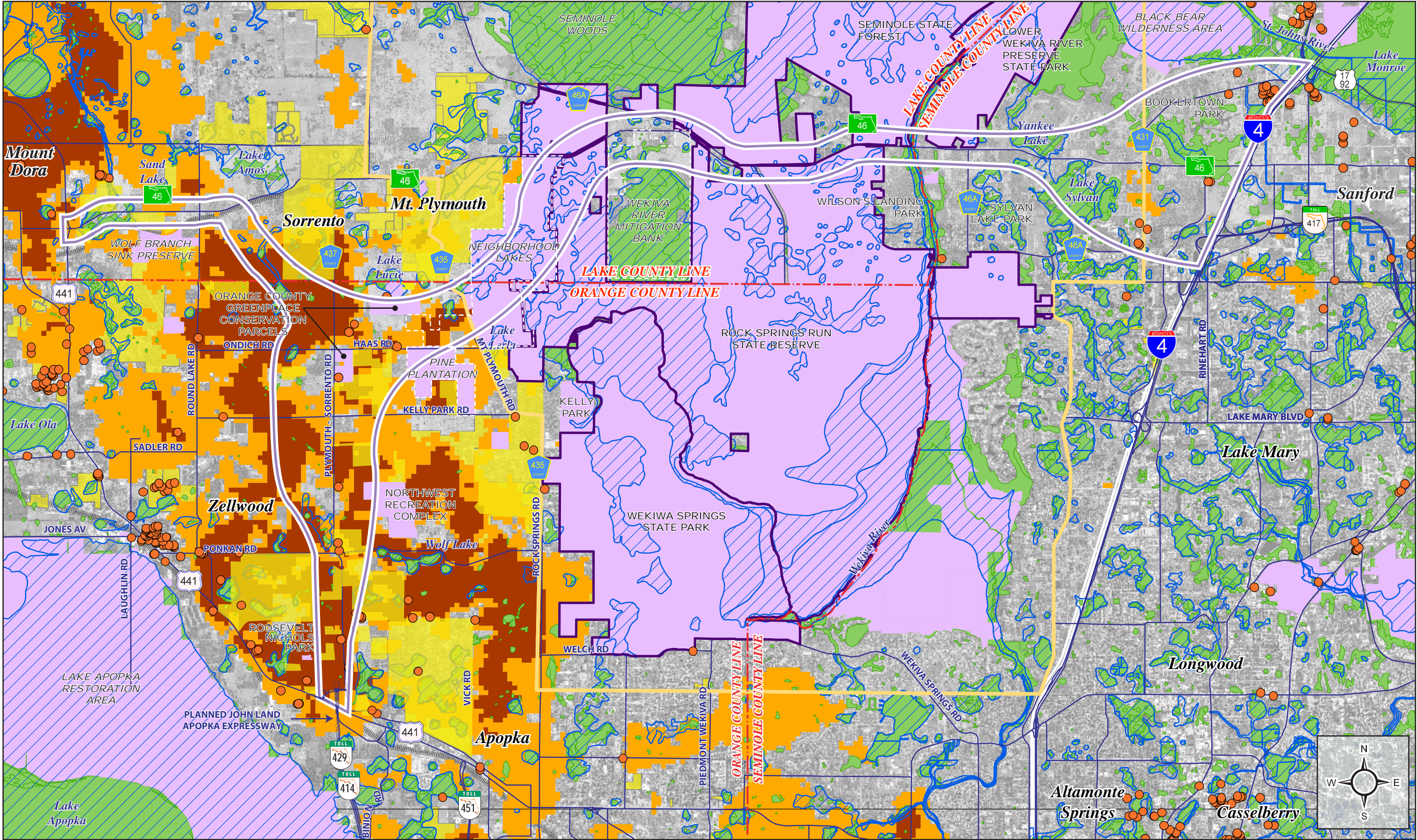
The major features from the social, cultural, and natural environmental constraints were layered together to create a composite area map showing the major constraints and areas of concern (**Exhibit A-5**). Areas without major constraints represent the most reasonable areas for alternatives development. These areas have fewer environmental constraints compared to other locations.

Exhibit A-5 illustrates the specific areas and resources that are unique to this region and the Wekiva River Basin ecosystem:

- public parks, conservation and recreations areas (potential Section 4(f) involvement),
- archaeological and historic sites (potential Section 106 and Section 4(f) involvement),
- threatened and endangered species habitat (potential Section 7 involvement),
- wetlands,
- floodplains,
- neighborhoods and developing communities, and
- extensive critical recharge areas and springsheds.

Based on the extensive coordination and evaluations performed for this study, the Wekiva Parkway Study Area, as shown in Exhibit A-5, was recommended for further analysis in the next step of the alternatives development process. *The Wekiva Parkway Study Area represents the location that best meets the purpose and need of the proposed project while minimizing impacts to the environment.*





**LEGEND**

— Wekiva Parkway Study Area

Public Conservation/Park & Recreation Lands

Existing and Planned Neighborhoods  
(Orange and Lake Counties)

Wekiva River Protection Area

Wetland

Potential Historic Sites

Recharge Rate 12- 20 in/yr

Recharge Rate > 20 in/yr

Floodplains

State Park Boundary

**Exhibit A-5**  
**Composite Constraints Map**



## 4. Study Area Coordination

The Wekiva Parkway study area was developed through extensive evaluations and analyses conducted by the Wekiva Basin Area Task Force, the SR 429 Northwest Extension Working Group, and the Wekiva Basin Coordinating Committee.

The *Wekiva Parkway (SR 429)/SR 46 Realignment PD&E* study area is a combination of two previous studies: the Western Beltway and the SR 429 Northwest Extension. The purpose and need for those studies was previously documented by FDOT and the Expressway Authority and were presented to the Wekiva Basin Area Task Force, the Wekiva Basin Coordinating Committee, the East Central Florida Planning Council, and the Florida Department of Community Affairs.