

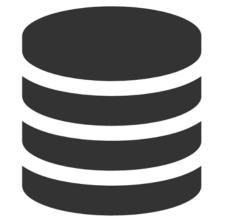
## Collaborative Planning for Apalachicola Restoration in High Resolution

## Colin Stief Senior Application Designer, Chesapeake Conservancy











Data

High-resolution

Large extent

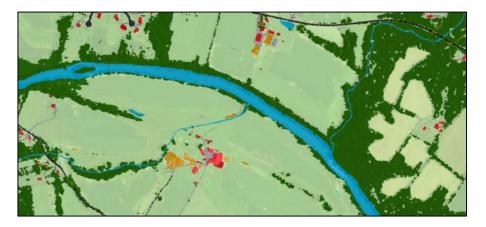
### **Web-based tools**

Visualization

Project management

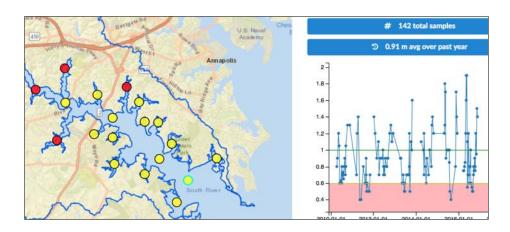


## **B** Data















#### **CENTER** for **SPATIAL ECOLOGY** and **RESTORATION**













### **Ongoing projects**

- 1. Culvert survey analysis
- 2. Prescribed burn extent identification
- 3. Evapotranspiration analysis



#### **Culvert survey analysis**



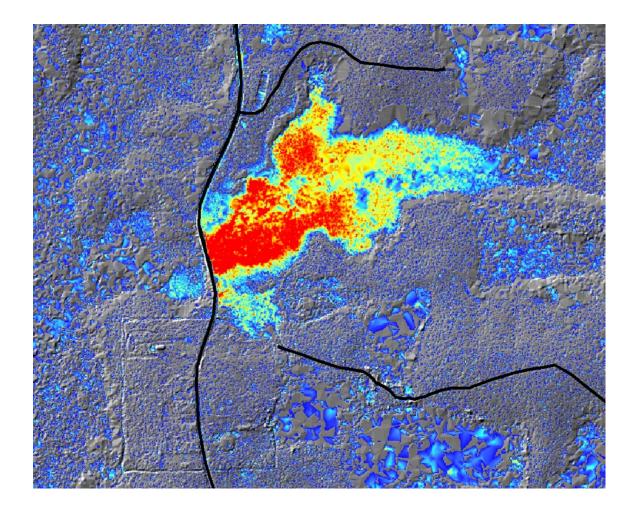
#### **2014**: Developed test methods

# **2017-18**: Inventory drainage structures

Attributes: type, shape, materials, dimensions, condition, flow, photos



#### **Culvert survey analysis**

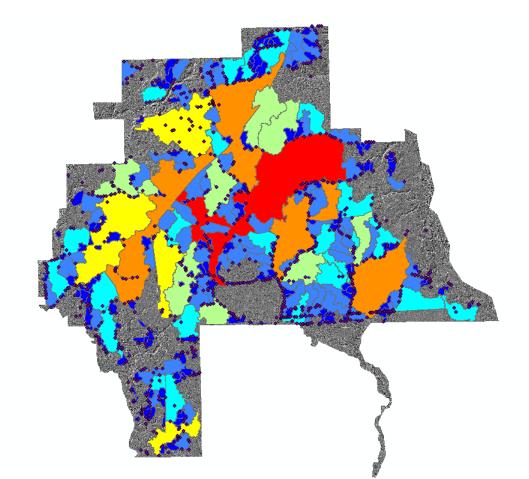


**Drainage areas:** hydro-corrected digital elevation model

Where are depressions adjacent to structures or roads?



#### **Culvert survey analysis**



#### **Prioritization:**

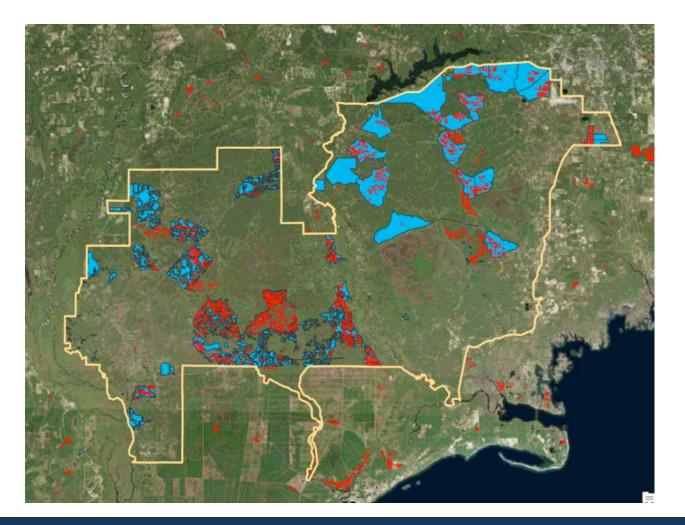
- 1. Existing culverts
- 2. Construction opportunities

#### **Goals:**

Aquatic organism passage Improved drainage



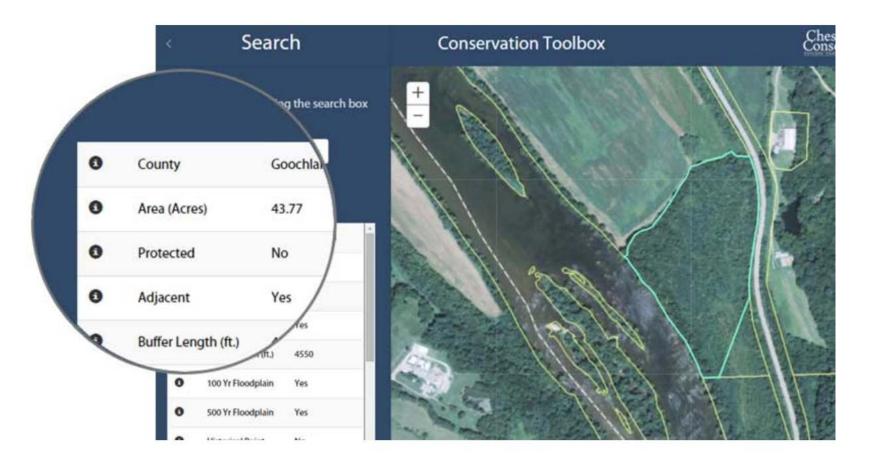
#### **Prescribed burn analysis**



#### **Perimeter/extent:** derived from satellite imagery



#### **Prescribed burn analysis**

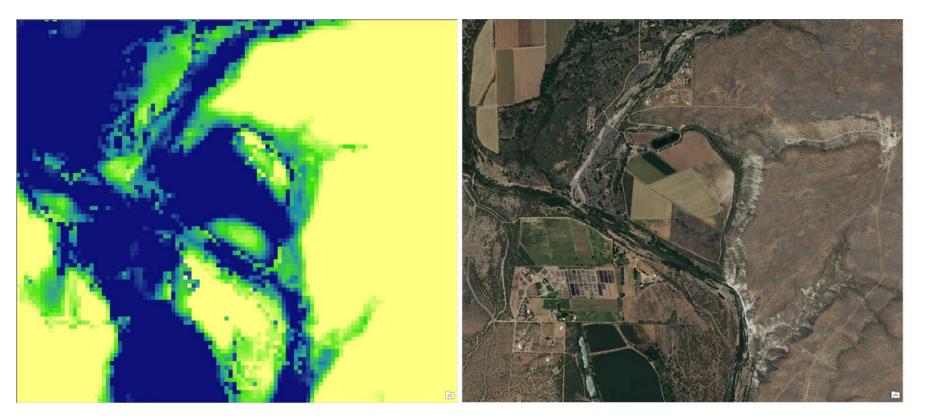


# Web-based mapping application

Visual catalog Historic burn extents Supplementary data



#### **Evapotranspiration (ET) analysis**



**EEFlux** Google Earth Engine tool

Relationship between ET and ground cover



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