

**Florida Fish and Wildlife Conservation Commission  
Division of Habitat and Species Conservation  
Land Conservation and Planning  
Avalon Florida Forever Project Analysis  
December 2024**

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This document contains the Florida Fish and Wildlife Conservation Commission's (FWC) Geographic Information System (GIS) data analysis of the area yet to be acquired within the **Avalon** Florida Forever project. This analysis was performed to provide FWC and others with important fish and wildlife resource information to be used in evaluating and ranking Florida Forever projects. The data selected for analysis are those considered by FWC to spatially reflect important fish and wildlife habitat and life history requirements.

In addition, FWC has completed a field review and associated assessment report for this project/proposal that is incorporated within the Acquisition and Restoration Council Florida Forever Project Evaluation Report. This report is available upon request.

### **GIS Data**

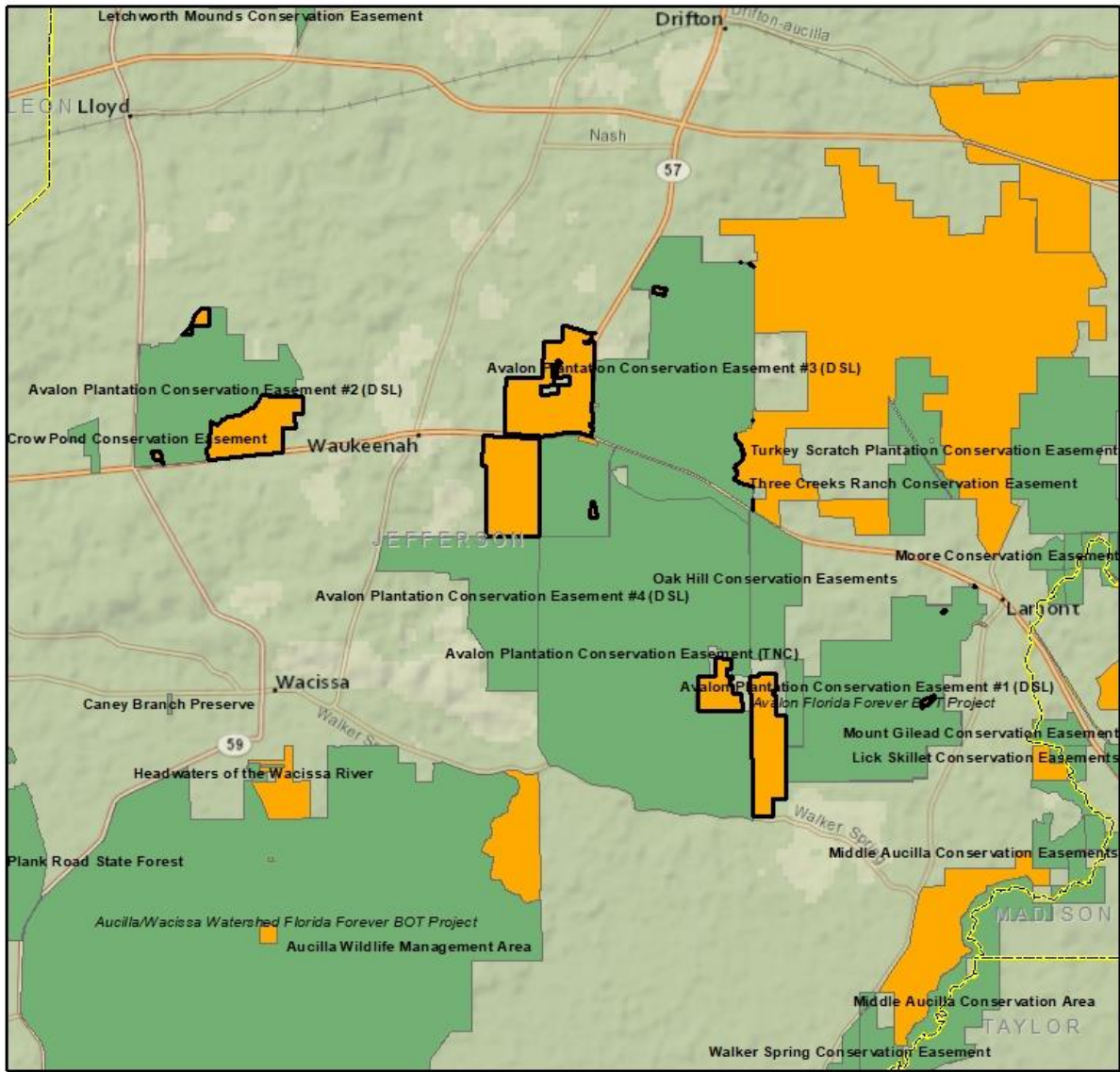
The FWC utilizes the Florida Cooperative Land Cover (CLC) GIS data layer for identification and mapping of land cover. The CLC is a cooperative effort between the FWC and the Florida Natural Areas Inventory (FNAI) to develop ecologically-based statewide land cover from existing sources and expert review of aerial photography. Land cover acreage estimates found in this document are based on GIS analysis of these data.

The FWC Florida Landscape Assessment Model (FLAM)<sup>1</sup> is a GIS model that determines the landscape value based on natural resources and fish and wildlife habitat. The FLAM ranks habitat from a 0-10; a rank of 10 being of greatest value.

Important fish and wildlife resource GIS data were queried using Environmental Resource Analysis GIS computer software. These data include the following GIS layers:

- FWC-FNAI Florida Cooperative Land Cover
- FWC Strategic Habitat Conservation Areas – Priority and Species
- Critical Lands and Waters Identification Project (CLIP) – Priority 1 and 2 – Terrestrial and Water
- CLIP – Landscape, Biodiversity, and Floodplain Resources
- Panther Location
- Panther Mortality
- Florida Panther Priority Habitat (Primary, Secondary, and Dispersal)
- Black Bear Range
- Rare Fish Locations/ Imperiled Waters
- Southern Bald Eagle Nest
- FWC Imperiled Species Richness
- FNAI Element Occurrences

- FNAI Suitable Habitat that Supports Species Known to Occur in the Vicinity
- Florida Department of Environmental Protection Surface Water Classification
- U.S. Fish and Wildlife Service (USFWS) - National Wetlands Inventory
- USFWS Critical Habitat
- Florida Geological Survey Springs
- Outstanding Florida Waters
- Areas of Critical State Concern



**Avalon  
Florida Forever Project**  
Jefferson County  
2,957 Remaining Acres

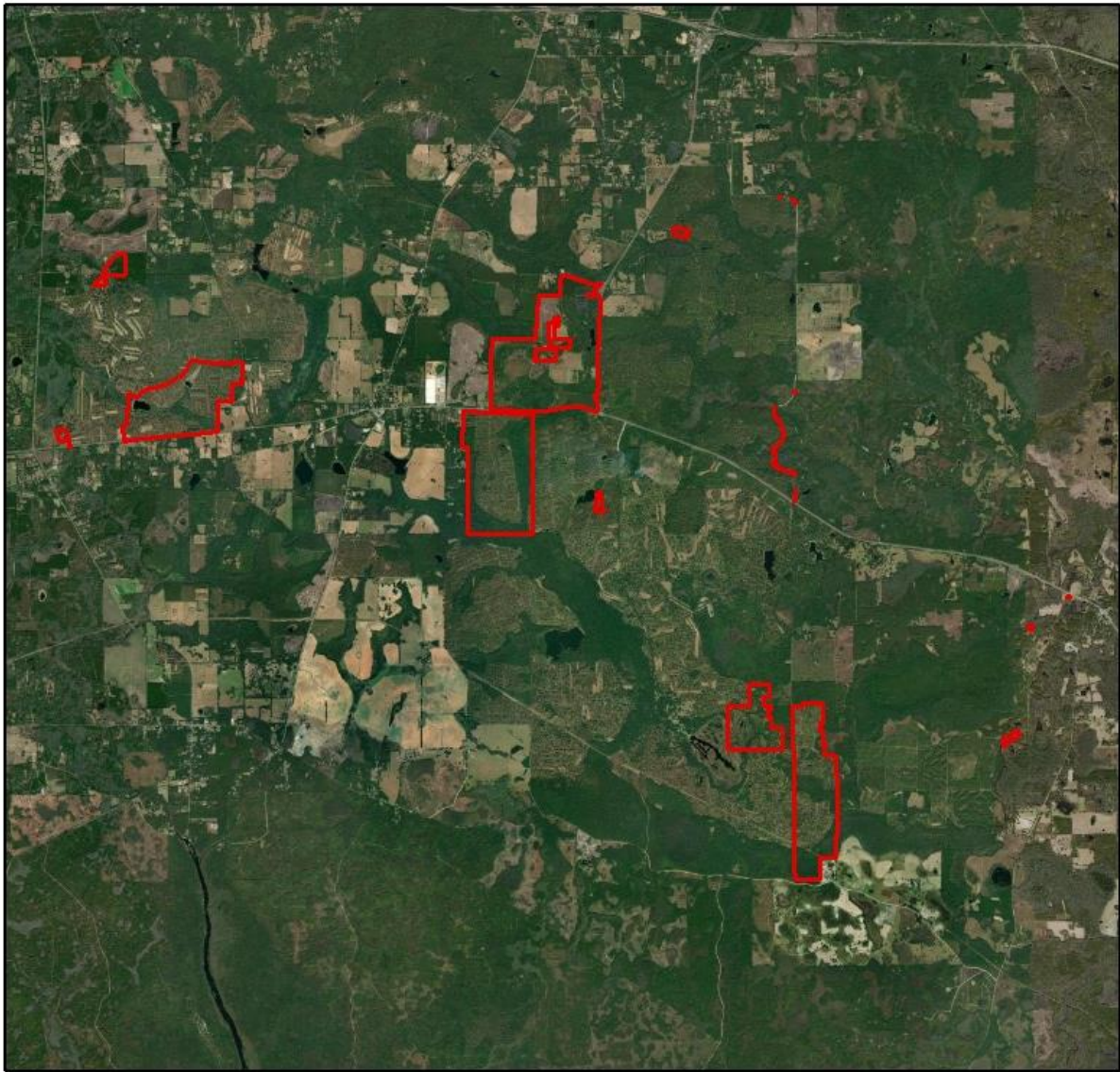


0 2 4 6 8 Miles

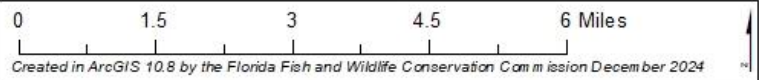
Created in ArcGIS 10.8 by the Florida Fish and Wildlife Conservation Commission December 2024

### Vicinity Map

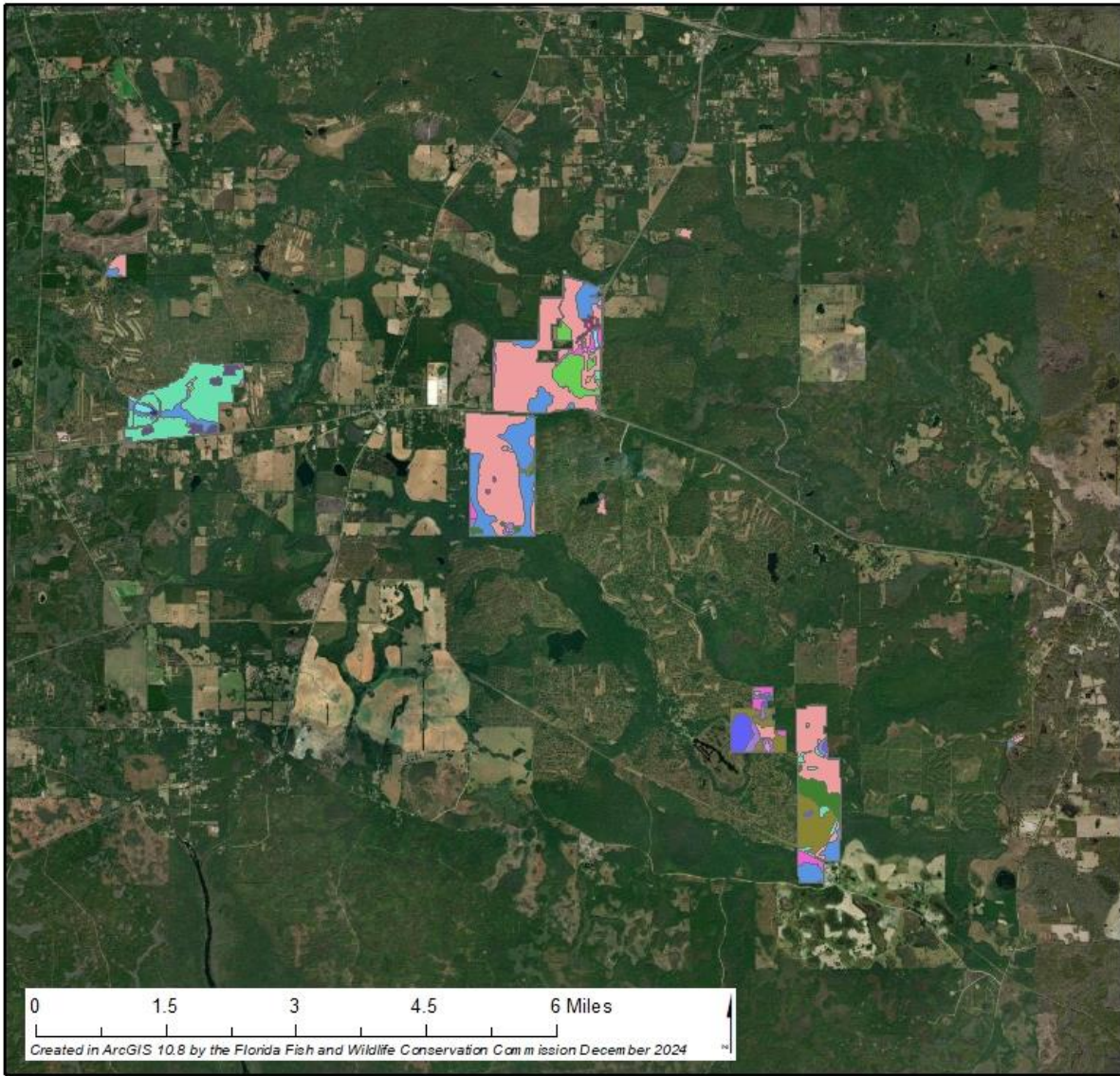
- Avalon Boundary
- County Boundaries
- Conservation Lands
- Florida Forever Projects



**Avalon**  
**Florida Forever Project**  
 Jefferson County  
 2,957 Remaining Acres



**Aerial Imagery**  
 Avalon Boundary

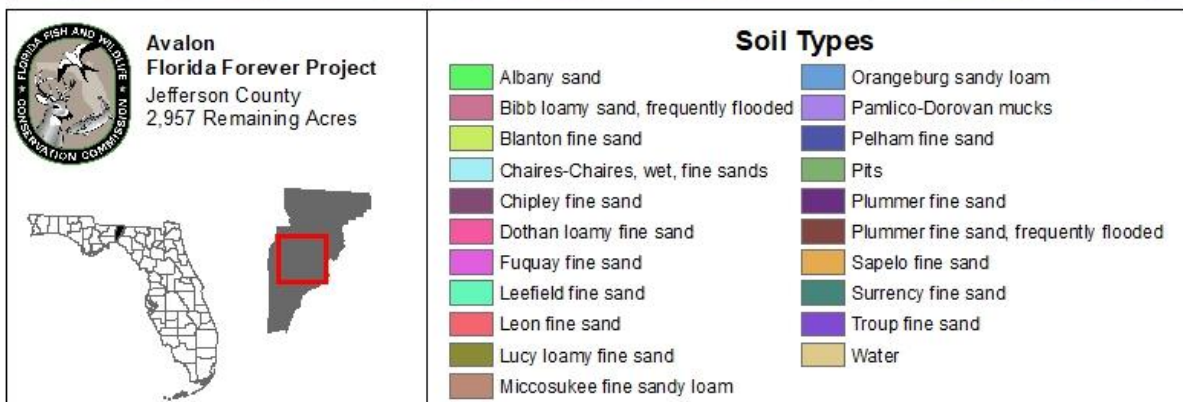
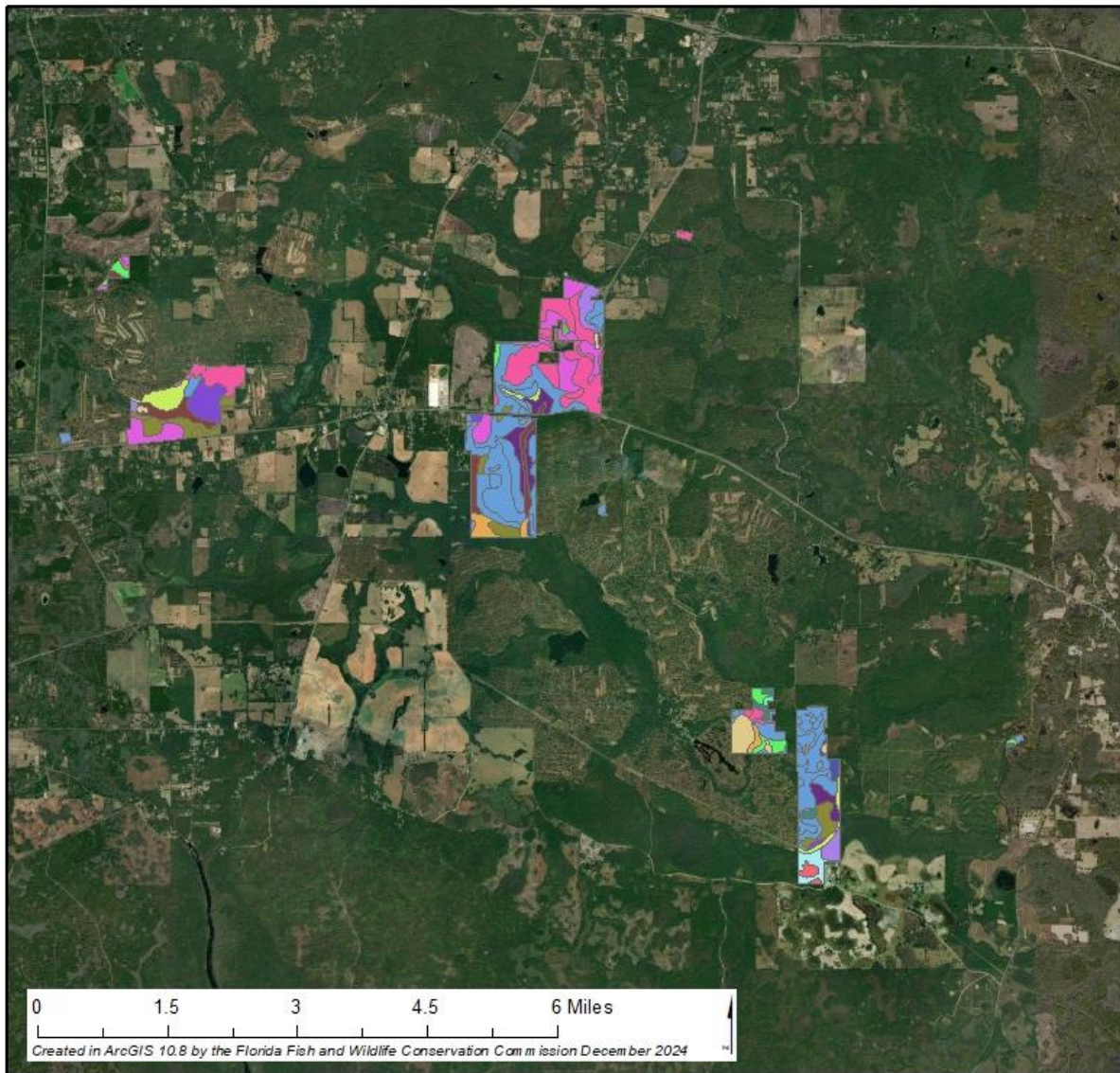


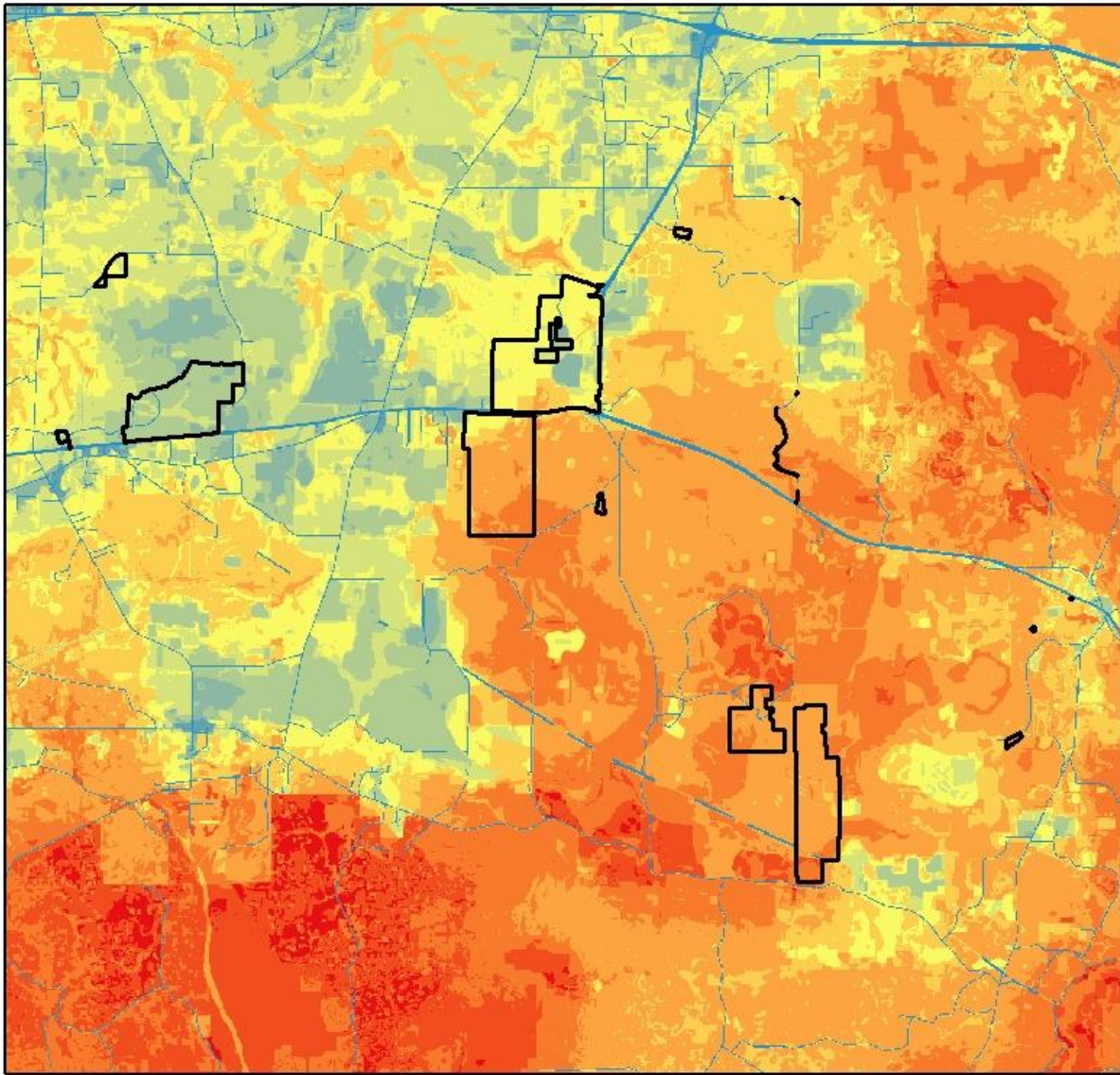
**Avalon**  
**Florida Forever Project**  
 Jefferson County  
 2,957 Remaining Acres



### Cooperative Land Cover

|                              |                           |
|------------------------------|---------------------------|
| Basin Swamp                  | Low Intensity Urban       |
| Cropland/Pasture             | Marshes                   |
| Cultural-Lacustrine          | Mixed Hardwood-Coniferous |
| Cypress                      | Natural Lakes and Ponds   |
| Dome Swamp                   | Prairies and Bogs         |
| Dry Flatwoods                | Rural                     |
| Freshwater Forested Wetlands | Transportation            |
| High Intensity Urban         | Tree Plantations          |
| High Pine and Scrub          | Upland Hardwood Forest    |
| Improved Pasture             | Wet Flatwoods             |
| Isolated Freshwater Marsh    |                           |



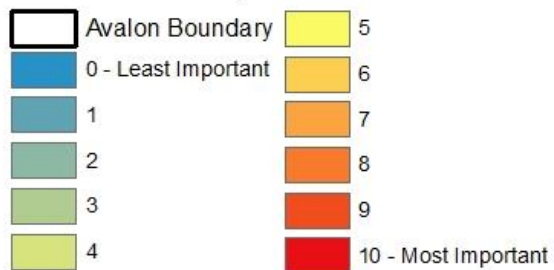


**Avalon**  
**Florida Forever Project**  
 Jefferson County  
 2,957 Remaining Acres



0 1.5 3 4.5 6 Miles  
 Created in ArcGIS 10.8 by the Florida Fish and Wildlife Conservation Commission December 2024

### Florida Landscape Assessment Model



| FWC Florida Landscape Assessment Model 2023 |            |        |
|---------------------------------------------|------------|--------|
|                                             | Value      | Acres  |
|                                             | 0          | 41.3   |
|                                             | 1          | 0.0    |
|                                             | 2          | 120.5  |
|                                             | 3          | 433.1  |
|                                             | 4          | 200.7  |
|                                             | 5          | 620.5  |
|                                             | 6          | 219.8  |
|                                             | 7          | 1045.9 |
|                                             | 8          | 261.5  |
|                                             | 9          | 12.9   |
|                                             | 10         | 0.0    |
|                                             |            |        |
| <b>Mean FLAM value =</b>                    | <b>5.5</b> |        |

Comments:

<sup>1</sup> FWC has developed a GIS-based assessment tool that incorporates a wide variety of land cover and wildlife species data. These wildlife species include imperiled species and locally important species. Application of this model assists in the identification and conservation of important wildlife habitats. The FLAM ranks the Florida landscape based upon important natural resources and habitat needs of wildlife as a way to identify ecologically significant lands in the state, and to assess the potential impacts of land development projects on wildlife populations. The FLAM is provided as part of the FWC's continuing technical assistance to various local, regional, state, and federal agencies, and entities interested in wildlife needs and conservation in order to: (1) determine ways to avoid or minimize project impacts by evaluating alternative placements, alignments, and transportation corridors during early planning stages, (2) assess direct, secondary, and cumulative impacts to habitat and wildlife resources, and (3) help identify appropriate parcels for land conservation, and for wetland and upland habitat mitigation.

# Environmental Resource Analysis

## FWC Land Conservation and Planning

**Analysis Shape Type: Polygon**

**Analysis Timestamp: 11042024 02:57:51**

**Shape Name: Unnamed polygon centered at -83.91817 °, 30.390049 °**

**Boundary Area: 2957.49 acres**

**Buffer Area: 0 acres**

**Total Area: 2957.49 acres**

### FWC Wildlife Data and Models

#### Cooperative Land Cover v3.7

| Name - State                 | Code - State | Name - Site                      | Code - Site | Total Area (acres) | Percent of Area |
|------------------------------|--------------|----------------------------------|-------------|--------------------|-----------------|
| Isolated Freshwater Marsh    | 2121         | Depression Marsh                 | 21211       | 2.99               | 0.1 %           |
| Isolated Freshwater Marsh    | 2121         | Basin Marsh                      | 21212       | 67.84              | 2.29 %          |
| Dome Swamp                   | 22131        | Dome Swamp                       | 22131       | 2.77               | 0.09 %          |
| High Intensity Urban         | 1822         | Institutional                    | 18225       | 3.05               | 0.1 %           |
| Natural Lakes and Ponds      | 3100         | Natural Lakes and Ponds          | 3100        | 0.87               | 0.03 %          |
| Natural Lakes and Ponds      | 3100         | Sinkhole Lake                    | 3115        | 6.93               | 0.23 %          |
| Cultural-Lacustrine          | 3200         | Artificial Impoundment/Reservoir | 3220        | 18.22              | 0.62 %          |
| Rural                        | 1830         | Unimproved/Woodland Pasture      | 183314      | 383.79             | 12.98 %         |
| Tree Plantations             | 18333        | Coniferous Plantations           | 183332      | 1,270.22           | 42.95 %         |
| Transportation               | 1840         | Transportation                   | 1840        | 41.12              | 1.39 %          |
| Improved Pasture             | 183313       | Improved Pasture                 | 183313      | 117.68             | 3.98 %          |
| Basin Swamp                  | 22132        | Basin Swamp                      | 22132       | 60.12              | 2.03 %          |
| Freshwater Forested Wetlands | 2200         | Bottomland Forest                | 22331       | 302.02             | 10.21 %         |
| Cropland/Pasture             | 18331        | Field Crops                      | 183312      | 46.38              | 1.57 %          |
| Freshwater Forested Wetlands | 2200         | Mixed Hardwood-Coniferous Swamps | 2240        | 153.22             | 5.18 %          |
| Mixed Hardwood-Coniferous    | 1400         | Mixed Hardwood-Coniferous        | 1400        | 45.31              | 1.53 %          |
| Mixed Hardwood-Coniferous    | 1400         | Successional Hardwood Forest     | 1410        | 54.30              | 1.84 %          |
| Low Intensity Urban          | 1821         | Low Intensity Urban              | 1821        | 2.79               | 0.09 %          |
| Dry Flatwoods                | 1310         | Mesic Flatwoods                  | 1311        | 18.53              | 0.63 %          |
| Upland Hardwood Forest       | 1110         | Upland Hardwood Forest           | 1110        | 93.40              | 3.16 %          |
| High Pine and Scrub          | 1200         | Upland Coniferous                | 1230        | 2.69               | 0.09 %          |
| High Pine and Scrub          | 1200         | Upland Pine                      | 1231        | 200.03             | 6.76 %          |
| Cypress                      | 2211         | Cypress                          | 2211        | 0.00               | 0 %             |
| Wet Flatwoods                | 2221         | Wet Flatwoods                    | 2221        | 0.00               | 0 %             |
| Freshwater Forested Wetlands | 2200         | Mixed Wetland Hardwoods          | 2233        | 3.76               | 0.13 %          |
| Marshes                      | 2120         | Marshes                          | 2120        | 6.03               | 0.2 %           |
| Rural                        | 1830         | Rural Open                       | 1831        | 45.47              | 1.54 %          |
| Prairies and Bogs            | 2110         | Wet Prairie                      | 2111        | 2.82               | 0.1 %           |
| Prairies and Bogs            | 2110         | Mixed Scrub-Shrub Wetland        | 2112        | 5.14               | 0.17 %          |
| TOTAL:                       |              |                                  |             | 2,957.49           | 100 %           |

#### Critical Lands and Waters Identification Project (CLIP) Priority 1 and 2 - Terrestrial and Waters

| CLIP Priority                           | Total Area (acres) | Percent of Area |
|-----------------------------------------|--------------------|-----------------|
| All other cells                         | 1,913.18           | 64.69 %         |
| CLIP P1 in submerged lands/state waters | 0.59               | 0.02 %          |
| CLIP P1 in terrestrial                  | 824.43             | 27.88 %         |
| CLIP P2 in terrestrial                  | 174.78             | 5.91 %          |
| TOTAL:                                  | 2,912.98           | 98.5 %          |

#### CLIP- Landscape Category

| Priority | Total Area (acres) | Percent of Area |
|----------|--------------------|-----------------|
| 0        | 112.76             | 3.81 %          |
| 1        | 434.34             | 14.69 %         |
| 2        | 812.06             | 27.46 %         |
| 3        | 1,598.33           | 54.04 %         |
| TOTAL:   | 2,957.49           | 100 %           |

#### CLIP- Biodiversity Category

| Priority | Total Area (acres) | Percent of Area |
|----------|--------------------|-----------------|
| 0        | 108.59             | 3.67 %          |
| 1        | 30.72              | 1.04 %          |
| 2        | 1,049.06           | 35.47 %         |
| 3        | 1,715.26           | 58 %            |
| 4        | 53.86              | 1.82 %          |
| TOTAL:   | 2,957.49           | 100 %           |

#### Priority FWC Strategic Habitat Conservation Areas 2024

| Priority                                      | Total Area (acres)           | Percent of Area    |           |           |                    |                    |                 |  |
|-----------------------------------------------|------------------------------|--------------------|-----------|-----------|--------------------|--------------------|-----------------|--|
| 3                                             | 1,235.62                     | 41.78 %            |           |           |                    |                    |                 |  |
| 5                                             | 231.26                       | 7.82 %             |           |           |                    |                    |                 |  |
| TOTAL:                                        | 1,466.88                     | 49.6 %             |           |           |                    |                    |                 |  |
| FWC Strategic Habitat Conservation Areas 2024 |                              |                    |           |           |                    |                    |                 |  |
| Species 1                                     | Species 2                    | Species 3          | Species 4 | Species 5 | Species 6          | Total Area (acres) | Percent of Area |  |
| American swallow-tailed kite                  |                              |                    |           |           |                    | 616.06             | 20.83 %         |  |
| Cooper's hawk                                 |                              |                    |           |           |                    | 231.26             | 7.82 %          |  |
| Cooper's hawk                                 | American swallow-tailed kite |                    |           |           |                    | 619.56             | 20.95 %         |  |
| TOTAL:                                        |                              |                    |           |           |                    | 1,466.88           | 49.6 %          |  |
| Panther Location                              |                              |                    |           |           |                    |                    |                 |  |
| No Records Found                              |                              |                    |           |           |                    |                    |                 |  |
| Panther Mortality                             |                              |                    |           |           |                    |                    |                 |  |
| No Records Found                              |                              |                    |           |           |                    |                    |                 |  |
| Panther Priority Habitat                      |                              |                    |           |           |                    |                    |                 |  |
| No Records Found                              |                              |                    |           |           |                    |                    |                 |  |
| Bear Range                                    |                              |                    |           |           |                    |                    |                 |  |
| Bear Range                                    | Total Area (acres)           |                    |           |           |                    | Percent of Area    |                 |  |
| Frequent                                      | 2,957.49                     |                    |           |           |                    | 100 %              |                 |  |
| TOTAL:                                        | 2,957.49                     |                    |           |           |                    | 100 %              |                 |  |
| Rare Fish                                     |                              |                    |           |           |                    |                    |                 |  |
| No Records Found                              |                              |                    |           |           |                    |                    |                 |  |
| Rare Fish Imperiled Waters                    |                              |                    |           |           |                    |                    |                 |  |
| COMMON NAME                                   | SCIENTIFIC NAME              |                    |           |           | Total Area (acres) |                    | Percent of Area |  |
| Eastern mudminnow                             | Umbra pygmaea                |                    |           |           | 1,046.68           |                    | 35.39 %         |  |
| Ironcolor shiner                              | Notropis chalybaeus          |                    |           |           | 1,046.68           |                    | 35.39 %         |  |
| TOTAL:                                        |                              |                    |           | 2,093.37  |                    | 70.78 %            |                 |  |
| Southern bald eagle nest                      |                              |                    |           |           |                    |                    |                 |  |
| No Records Found                              |                              |                    |           |           |                    |                    |                 |  |
| Imperiled Species Richness                    |                              |                    |           |           |                    |                    |                 |  |
| Number of Species                             |                              | Total Area (acres) |           |           |                    | Percent of Area    |                 |  |
| 0                                             |                              | 656.68             |           |           |                    | 22.2 %             |                 |  |
| 1                                             |                              | 55.52              |           |           |                    | 1.88 %             |                 |  |
| 3                                             |                              | 436.87             |           |           |                    | 14.77 %            |                 |  |
| 4                                             |                              | 3.78               |           |           |                    | 0.13 %             |                 |  |
| 5                                             |                              | 984.92             |           |           |                    | 33.3 %             |                 |  |
| 6                                             |                              | 454.07             |           |           |                    | 15.35 %            |                 |  |
| 7                                             |                              | 339.04             |           |           |                    | 11.46 %            |                 |  |
| 8                                             |                              | 26.62              |           |           |                    | 0.9 %              |                 |  |
| TOTAL:                                        |                              | 2,957.49           |           |           |                    | 100 %              |                 |  |

## Florida Natural Areas Inventory Data

### Element Occurrences

| COMMON NAME                     | SCIENTIFIC NAME             | GLOBAL RANK | STATE RANK | FWC STATUS | FEDERAL STATUS | EO Rank | Last Observation | Total Area (acres) | Percent of Area |
|---------------------------------|-----------------------------|-------------|------------|------------|----------------|---------|------------------|--------------------|-----------------|
| Eastern Diamondback Rattlesnake | Crotalus adamanteus         | G3          | S3         | N          | UR             | E       | 1970-04-30       | 208.73             | 7.06 %          |
| Florida Black Bear              | Ursus americanus floridanus | G5T4        | S4         | N          | N              | BC      | 2022-07-06       | 2,957.49           | 100 %           |
| little brown jug                | Hexastylis arifolia         | G5          | S3         | T          | N              | E       | 2022-08-25       | 0.48               | 0.02 %          |
| One-toed Amphiuma               | Amphiuma pholeter           | G3          | S3         | N          | N              | AB      | 1983-10-11       | 717.90             | 24.27 %         |
| TOTAL:                          |                             |             |            |            |                |         |                  | 3,884.60           | 131.35 %        |

### Suitable Habitat that Supports Species Known to Occur in the Vicinity

| COMMON NAME                    | SCIENTIFIC NAME        | Total Area (acres) | Percent of Area |
|--------------------------------|------------------------|--------------------|-----------------|
| Bailey's Pocket Gopher         | Aphodius baileyi       | 0.25               | 0.01 %          |
| Cartwright's Mycotrupes Beetle | Mycotrupes cartwrighti | 33.09              | 1.12 %          |
| Red-cockaded Woodpecker        | Dryobates borealis     | 178.19             | 6.02 %          |
| Wood Stork                     | Mycteria americana     | 48.15              | 1.63 %          |
| TOTAL:                         |                        | 259.68             | 8.78 %          |

## USFWS

### Critical Habitat

No Records Found

## Area of Critical State Concern

### Apalachicola

No Records Found

### Big Cypress

|                    |
|--------------------|
| No Records Found   |
| <b>Green Swamp</b> |
| No Records Found   |
| <b>Key West</b>    |
| No Records Found   |
| <b>Lower Keys</b>  |
| No Records Found   |
| <b>Upper Keys</b>  |
| No Records Found   |

|                                             |                           |                        |
|---------------------------------------------|---------------------------|------------------------|
| <b>Florida Ecological Greenways Network</b> |                           |                        |
| <b>Wildlife Corridor Classification</b>     |                           |                        |
| <b>Priority Level</b>                       | <b>Total Area (acres)</b> | <b>Percent of Area</b> |
| 2                                           | 2,150.21                  | 72.7 %                 |
| 5                                           | 55.40                     | 1.87 %                 |
| TOTAL:                                      | 2,205.61                  | 74.58 %                |

|                                          |                   |                    |                       |                           |                        |  |
|------------------------------------------|-------------------|--------------------|-----------------------|---------------------------|------------------------|--|
| <b>Water Resources</b>                   |                   |                    |                       |                           |                        |  |
| <b>FDEP Surface Water Classification</b> |                   |                    |                       |                           |                        |  |
| <b>Waterbody Name</b>                    | <b>Water Type</b> | <b>Water Basin</b> | <b>Classification</b> | <b>Total Area (acres)</b> | <b>Percent of Area</b> |  |
| AUCILLA RIVER                            | STREAM            | 3310               | 3F                    | 366.50                    | 12.39 %                |  |
| BEASLEY CREEK                            | STREAM            | 3367               | 3F                    | 6.66                      | 0.23 %                 |  |
| UNNAMED DRAIN                            | STREAM            | 3407               | 3F                    | 273.76                    | 9.26 %                 |  |
| WELAUNEE CREEK (BAILEY MILL CREEK)       | STREAM            | 3419A              | 3F                    | 1,036.64                  | 35.05 %                |  |
| ANDERSON BAY DRAIN                       | STREAM            | 3430               | 3F                    | 133.40                    | 4.51 %                 |  |
| UNNAMED DRAIN                            | STREAM            | 3442               | 3F                    | 10.00                     | 0.34 %                 |  |
| LLOYD CREEK                              | STREAM            | 791A               | 3F                    | 353.87                    | 11.97 %                |  |
| POLAR MILL BRANCH                        | STREAM            | 862                | 3F                    | 36.16                     | 1.22 %                 |  |
| LANG BRANCH                              | STREAM            | 899                | 3F                    | 207.24                    | 7.01 %                 |  |
| BURNT MILL CREEK                         | STREAM            | 918                | 3F                    | 522.84                    | 17.68 %                |  |
| UNNAMED BRANCH                           | STREAM            | 932                | 3F                    | 10.41                     | 0.35 %                 |  |
| TOTAL:                                   |                   |                    |                       | 2,957.49                  | 100 %                  |  |

|                                   |  |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|--|
| <b>Outstanding Florida Waters</b> |  |  |  |  |  |  |
| No Records Found                  |  |  |  |  |  |  |

|                                          |  |  |  |  |  |  |
|------------------------------------------|--|--|--|--|--|--|
| <b>Florida Geological Survey Springs</b> |  |  |  |  |  |  |
| No Records Found                         |  |  |  |  |  |  |

|                                    |                     |                           |                        |  |
|------------------------------------|---------------------|---------------------------|------------------------|--|
| <b>National Wetlands Inventory</b> |                     |                           |                        |  |
| <b>Wetland Type</b>                | <b>Wetland Code</b> | <b>Total Area (acres)</b> | <b>Percent of Area</b> |  |
| FRESHWATER EMERGENT WETLAND        | PEM1F               | 11.29                     | 0.38 %                 |  |
| FRESHWATER EMERGENT WETLAND        | PEM1C               | 0.51                      | 0.02 %                 |  |
| FRESHWATER POND                    | PAB4/UBHh           | 9.62                      | 0.33 %                 |  |
| LAKE                               | L2AB3H              | 57.61                     | 1.95 %                 |  |
| FRESHWATER EMERGENT WETLAND        | PEM1/AB3F           | 4.46                      | 0.15 %                 |  |
| FRESHWATER POND                    | PAB4H               | 0.38                      | 0.01 %                 |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PFO1C               | 283.39                    | 9.58 %                 |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PFO1/3C             | 62.33                     | 2.11 %                 |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PFO6C               | 9.82                      | 0.33 %                 |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PFO6/4A             | 3.94                      | 0.13 %                 |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PFO6F               | 91.62                     | 3.1 %                  |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PSS3/1C             | 0.99                      | 0.03 %                 |  |
| RIVERINE                           | R4SBC               | 0.50                      | 0.02 %                 |  |
| FRESHWATER POND                    | PUBH                | 2.66                      | 0.09 %                 |  |
| FRESHWATER POND                    | PUBHh               | 4.55                      | 0.15 %                 |  |
| RIVERINE                           | R5UBH               | 1.57                      | 0.05 %                 |  |
| FRESHWATER FORESTED/SHRUB WETLAND  | PFO6/4C             | 7.76                      | 0.26 %                 |  |
| TOTAL:                             |                     | 553.00                    | 18.7 %                 |  |

|                                      |                           |                        |
|--------------------------------------|---------------------------|------------------------|
| <b>Priority Floodplain Resources</b> |                           |                        |
| <b>Priority</b>                      | <b>Total Area (acres)</b> | <b>Percent of Area</b> |
| 3                                    | 397.14                    | 13.43 %                |
| 2                                    | 111.66                    | 3.78 %                 |
| 4                                    | 96.68                     | 3.27 %                 |
| 5                                    | 3.58                      | 0.12 %                 |
| 0                                    | 2,348.43                  | 79.41 %                |
| TOTAL:                               | 2,957.49                  | 100 %                  |