# MOBILE BAY BASIN HABITAT ATLAS

# ACCELERATING HEADWATER LAND PROTECTION IN THE MOBILE BAY BASIN

December 2019

Funded by: Healthy Watersheds Consortium Grant Program, a partnership of the U.S. Environmental Protection Agency, the U.S. Department of Agriculture Natural Resource Conservation Service, and the U.S. Endowment for Forestry and Communities

Prepared by: Moffatt & Nichol and the Alabama Forest Resource Center under contract with the Mobile Bay National Estuary Program







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# **Table of Contents**

List o	f Figures	3
List o	f Tables	4
Gloss	ary	5
1.	Introduction	7
1.1.	Background	7
1.2.	Healthy Watersheds Consortium Grant	9
1.3.	Mobile Bay Basin Overview	11
2.	Land Conservation Data and Criteria	13
2.1.	Database	14
2.2.	Prioritization Criteria	16
2.2.1.	Catchment Level Prioritization	17
2.2.2.	Parcel Level Prioritization	22
3.	Conservation Priorities	25
3.1.	Baldwin County Conservation Priorities	27
3.2.	Choctaw County Conservation Priorities	28
3.3.	Clarke County Conservation Priorities	29
3.4.	Marengo County Conservation Priorities	30
3.5.	Mobile County Conservation Priorities	31
3.6.	Monroe County Conservation Priorities	32
3.7.	Sumter County Conservation Priorities	33
3.8.	Washington County Conservation Priorities	34
3.9.	Wilcox County Conservation Priorities	35
4.	Conservation Tools and Funding Mechanisms	36
5.	References	38
Appe	ndix A: Database Metadata	39



# **List of Figures**

Figure 1. Parcels conserved by AFRC prior to the 2018 HWC grant
Figure 2. Extent of the Mobile Bay Basin
Figure 3. Major stream and river systems within the Mobile Bay Basin
Figure 4. Area of interest within the Mobile Bay Basin
Figure 5. Basin and parcel level criteria used by the Mobile Bay Basin Habitat Atlas
Figure 6. Hydrologic connectivity index scores to Mobile Bay (USEPA, 2014)
Figure 7. Catchments with hydrologic connectivity index scores 75 or greater to Mobile Bay (USEPA, 2014)
Figure 8. Catchments with watershed health index scores 50 or greater (USEPA, 2014)20
Figure 9. Catchments with high hydrologic connectivity and watershed health (USEPA, 2014)
Figure 10. Nine counties pursued for parcel data
Figure 11. All parcels 500 acres or larger24
Figure 12. Priority parcels identified for headwater habitat conservation25
Figure 13. Priority parcels in Baldwin County, Alabama identified for headwater habitat conservation 27
Figure 14. Priority parcels in Choctaw County, Alabama identified for headwater habitat conservation28
Figure 15. Priority parcels in Clarke County, Alabama identified for headwater habitat conservation 29
Figure 16. Priority parcels in Marengo County, Alabama identified for headwater habitat conservation. 30
Figure 17. Priority parcels in Mobile County, Alabama identified for headwater habitat conservation 31
Figure 18. Priority parcels in Monroe County, Alabama identified for headwater habitat conservation32
Figure 19. Priority parcels in Sumter County, Alabama identified for headwater habitat conservation 33
Figure 20. Priority parcels in Washington County, Alabama identified for headwater habitat conservation.
Figure 21. Priority parcels in Wilcox County, Alabama identified for headwater habitat conservation35



# **List of Tables**

Table 1. Summary of county parcel data (Real Estate Portal USA, 2019).	22
Table 2. Summary of parcels identified for priority headwater habitat conservation	26
Table 3: Potential Funding Mechanisms	37



# Glossary

Acronym	Name	
ac	Acre (= $4,840 \text{ yd}^2 \text{ or } 4,047 \text{ m}^2$ )	
ADCNR	Alabama Department of Conservation and Natural Resources	
ADECA	Alabama Department of Economic and Community Affairs	
AFRC	Alabama Forrest Resource Service	
AWF	Alabama Wildlife Federation	
BOEM	Bureau of Ocean Energy Management	
CELCP	Coastal and Estuarine Land Conservation Program	
DWH	Deepwater Horizon	
ft	Feet	
ft <sup>2</sup>	Square Feet	
GCPO	Gulf Coastal Plains and Ozarks, LLC	
GIS	Geographic Information System	
GOMESA	Gulf of Mexico Energy Security Act	
GOMP	Gulf of Mexico Program	
ha	Hectare (= $10,000 \text{ m}^2$ )	
HWA	Healthy Watershed Assessment	
HWC	Healthy Watershed Consortium	
HUC	Hydrologic Unit Codes	
LWCF	Land and Water Conservation Fund	
m	Meter	
m <sup>2</sup>	Square Meters	
MBNEP	Mobile Bay National Estuary Program	
МТА	TA Mobile-Tensaw-Apalachee	
NAWCA	VAWCA North American Wetlands Conservation Act	
NCED	National Conservation Easement Database	
NFWF	National Fish and Wildlife Foundation	
NOAA	National Oceanic and Atmospheric Administration	
NPS	National Park Service	



Acronym	Name	
NRCS	Natural Resource Conservation Service	
NRDA	Natural Resource Damage Assessment	
PADUS Protected Area Database of the United States		
PEAs Priority Ecological Areas		
PGCLC Partnership for Gulf Coast Land Conservation		
RESTORE Act	Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act	
RIBITS Regulatory In lieu fee and Bank Information Tracking System		
SEAs Significant Ecological Areas		
TNC The Nature Conservancy		
USDA U.S. Department of Agriculture		
USEPA United States Environmental Protection Agency		
USFWS	/S U.S. Fish and Wildlife Service	
yd <sup>2</sup>	Square Yard	



# 1. Introduction

### 1.1. Background

In 2004, the Mobile Bay National Estuary Program (MBNEP), U.S. Environmental Protection Agency's (USEPA's) Gulf of Mexico Program (GOMP), The Nature Conservancy (TNC), and others conducted a strategic assessment of habitats throughout Mobile and Baldwin counties. This assessment identified priority sites for conservation and restoration using an ecosystem-based process that focused on the following target areas: Grand Bay, Perdido River, Gulf Islands, and the Mobile Bay and Mobile-Tensaw River Delta. This effort resulted in the identification of approximately 51,942 acres (17 priority sites) and over 30 additional sites (habitat types) where restoration and/or enhancement were considered viable and necessary. The results of this effort were collated into a document titled *Conserving Alabama's Coastal Habitats: Acquisition and Restoration Priorities of Mobile and Baldwin Counties*, hereafter the Coastal Habitat Atlas (MBNEP et al., 2006). The Coastal Habitat Atlas served local governments and other community organizations to more effectively guide resource management activities in coastal Alabama. Over the last 14 years, conservation organizations have successfully used the Coastal Habitat Atlas to conserve nearly 26,428 acres or nearly 50% of its prioritized parcels (MBNEP, 2018).

In 2014 the USEPA completed an <u>Alabama and Mobile Bay Basin Integrated Assessment of Watershed</u> <u>Health</u> – a report on the status and vulnerability of watershed health for catchments located within the State and the Mobile-Tombigbee and Alabama River basins, hereafter the Healthy Watershed Assessment (HWA) (USEPA, 2014). One of the goals of the HWA is to provide watershed health data, information important to the protection prioritization of healthy watersheds, which can circumvent the need for costly restoration in the future. Data and information on relative watershed health from the 2014 HWA support a screening-level assessment of protection priorities across broad geographic areas and serve to inform this project's framework for priority parcel selection. The prioritization framework for habitat (parcel) selection used by this project is described in detail in Section 2.2.

With these two efforts in hand, the MBNEP wanted to create a second habitat atlas that would extend further upstream into the headwaters of the Mobile Bay Basin (i.e. the Mobile-Tombigbee and Alabama River basins). The vision for this second habitat atlas is to accelerate successful strategic conservation and outreach efforts pursued by the MBNEP and its conservation partners.

The Alabama Forest Resources Center (AFRC) is one such active conservation partner, an organization identified by the <u>Mobile-Tensaw-Apalachee (MTA) Watershed Management Plan Scoping</u> – a scoping exercise to find efficiencies for planning for the Mobile Delta (MBNEP, 2017). AFRC formed a land trust in 1999 to enhance, promote, and preserve the productivity and sustainability of Alabama's forest resources to ensure their economic and environmental benefits for future generations (AFRC, 2019). AFRC was a key partner involved with the protection of several properties identified by the Coastal Habitat Atlas (MBNEP et al., 2006) and through the end of 2017 held easements to approximately 57,135 acres<sup>1</sup> of forestland within Alabama (Figure 1). AFRC Director, Dan Dumont, noted that "conservation is currently

<sup>&</sup>lt;sup>1</sup> Acreages provided by this report were calculated from the North American Datum of 1983 Universal Transverse Mercator Zone 16N.



done opportunistically but should have a more focused approach." Due to this strategic need of the ARFC and other conservation partners the MBNEP proposed to create a second atlas focused on the conservation of habitats comprising the entirety of the Mobile Bay Basin (hereafter the Mobile Bay Basin Habitat Atlas).

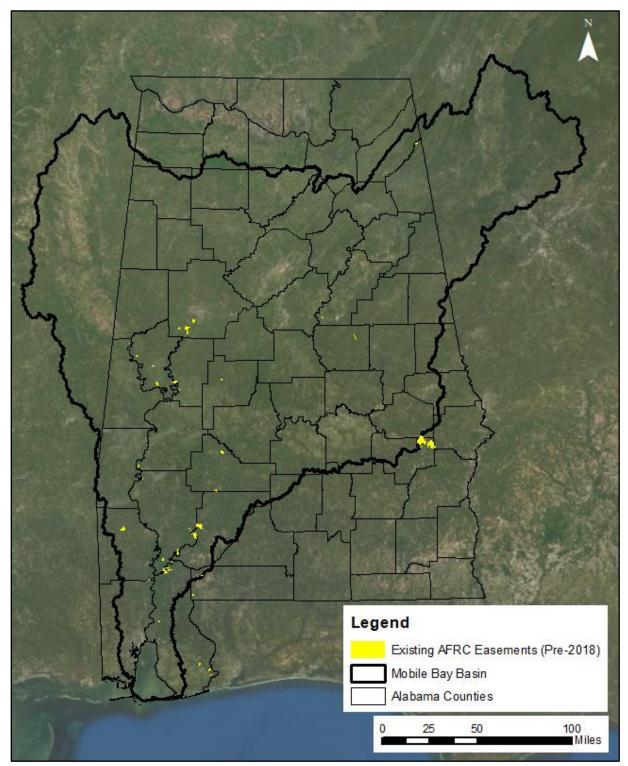


Figure 1. Parcels conserved by AFRC prior to the 2018 HWC grant.



### 1.2. Healthy Watersheds Consortium Grant

In 2018 the MBNEP pursued and was awarded a grant by the Healthy Watersheds Consortium (HWC), *Accelerating Headwater Land Protection in the Mobile Bay Basin*. The HWC is a partnership between the USEPA, the U.S. Endowment for Forestry and Communities, and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). The HWC grant received by the MBNEP seeks to advance the strategic protection of healthy habitat parcels in Mobile-Tombigbee and Alabama River basins, where 75% of catchments drain first and second order streams, key to the ecological health of the Mobile Bay estuary. This two-year conservation planning effort builds from previous watershed and habitat conservation planning but not limited to:

- Conserving Alabama's Coastal Habitats: Acquisition and Restoration Priorities of Mobile and Baldwin Counties (MBNEP et al., 2006);
- Alabama & Mobile Bay Basin Integrated Assessment of Watershed Health (USEPA, 2014);
- Alabama Wildlife Action Plan (ADCNR, 2015);
- *Respect the Connect: Comprehensive Conservation & Management Plan for Alabama's Estuaries & Coast: 2013-2018 (MBNEP, 2013);*
- Mobile-Tensaw-Apalachee (MTA) Watershed Management Plan Scoping (MBNEP, 2017).

Phase 1 of the HWC grant includes the following activities conducted by Moffatt & Nichol staff under contract and direction of the MBNEP:

- Activities for undertaking a geographic information system (GIS) analysis of the Mobile-Tombigbee (0316) and Alabama River (0315) basin headwater habitats;
- Development of a decision-making matrix to guide headwater land conservation prioritization;
- Development of a priority habitat atlas report (this report); and
- Outreach and engagement with key stakeholders.

Phase 2 of the HWC grant includes the following activities conducted by AFRC staff utilizing deliverables developed from Phase 1:

- Engagement with potential landowners; and
- Liaison between landowners and conservation partners.

Prior to receiving this grant AFRC had opportunistically protected approximately 37,325 acres within the Mobile Bay Basin (Figure 1). AFRC will continue to optimize opportunities identified in this report (Mobile Bay Basin Habitat Atlas) and its associated database after the grant terminates (December 31, 2019).



The MBNEP's 2018 HWC grant proposed the following short-term and long-term outcomes:

Short-term:

- Develop a Mobile Bay Basin Habitat Atlas identifying healthy, headwater habitat parcels in Alabama portions of Hydrologic Unit Codes (HUC) 0315 and 0316, vetted by forestry resource managers to identify landowners amenable to selling or conservation easement, with a matrix of potential funding mechanisms.
- Place 10,000 acres of identified priority headwater habitats into conservation easement before conclusion of the grant period.

Long-term:

• Place 100,000 acres of identified priority headwater habitats into protection via acquisition or conservation easement over a period of five to 10 years.

The long-term vision for this project is to protect significant acreage in upstream portions of the Mobile Bay Basin. This will be accomplished through a strategic effort to identify and secure headwater habitat parcels critical to the protection of species diversity and hydrological and biological processes that sustain our economy, culture, and quality of life in Alabama. The purpose of this project it to improve connections between upstream stakeholders and coastal Alabama through development of this Atlas which can be used by AFRC and others in the land trust community to facilitate conservation of critical habitats. This will ensure healthy forests and estuarine and Gulf waters for future generations of Alabamians.



### **1.3.** Mobile Bay Basin Overview

The Mobile Bay Basin encompasses 65% of the land area of the state of Alabama (MBNEP, 2013), along with portions of Mississippi, Georgia, and Tennessee, together totalling approximately 28,512,513 acres (Figure 2). The Mobile Bay Basin is a vast network of over 250 separate waterways, including rivers, bays, creeks, bayous, lakes, cut-offs, branches, and sloughs (MBNEP, 2013). Figure 3 illustrates the major stream and river systems within the Mobile Bay Basin. Collectively, Mobile Bay is the terminus for the Mobile River and the Tombigbee-Black Warrior and Alabama-Coosa-Tallapoosa river systems (MBNEP, 2013). The Mobile Bay Basin is the fourth largest drainage basin in North America by flow volume; contains the Mobile-Tensaw Delta - the second largest river delta in the United States comprising 200,000 acres of swamps, rivers, bottomlands, and marshes; and supports the highest species diversity of states east of the Mississippi River (MBNEP, 2013; USEPA, 2014).

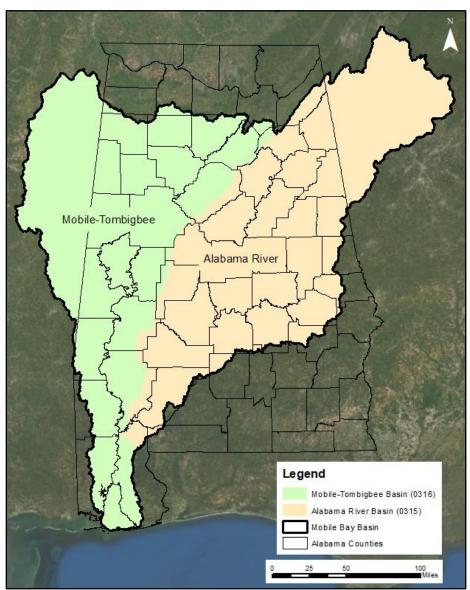


Figure 2. Extent of the Mobile Bay Basin.



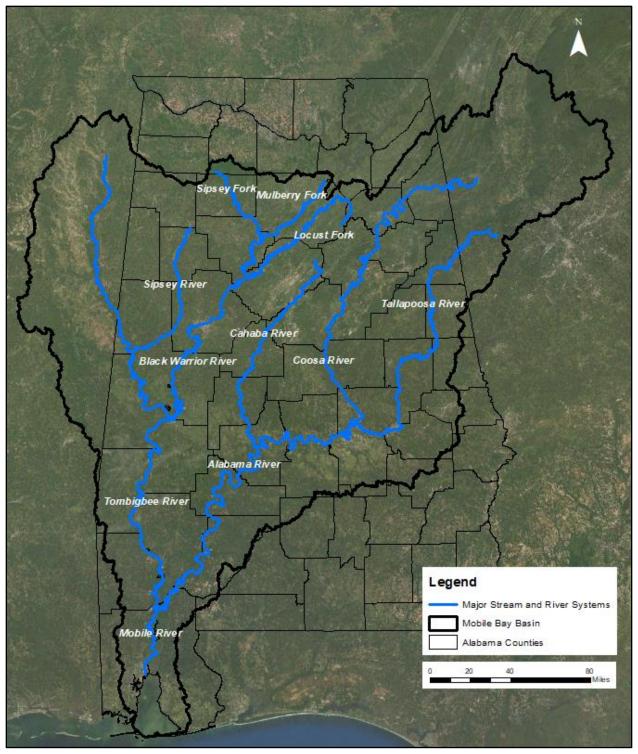


Figure 3. Major stream and river systems within the Mobile Bay Basin.



# 2. Land Conservation Data and Criteria

The focus of this project is the nearly 20,910,801 acres of Mobile Bay Basin contained within Alabama (Figure 4). With one HWC grant outcome to identify and conserve 100,000 acres of healthy, headwater habitats, data and criteria for utilizing those data were essential in focusing the conservation goals of this project. This chapter describes the data and criteria for utilizing those data for the development of the Mobile Bay Basin Habitat Atlas's priority headwater habitat parcels.

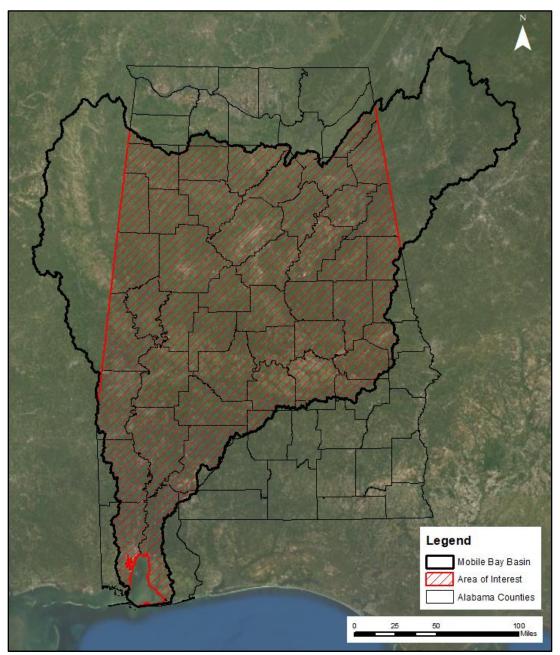


Figure 4. Area of interest within the Mobile Bay Basin.



### 2.1. Database

A key task to achieving the outcomes of the HWC grant was developing a GIS database that could be used over a 10-year period by AFRC to target priority parcels for conservation. To accomplish this task, pertinent datasets available for the prioritization of healthy headwater habitats (parcels) were identified and extracted to a GIS database. This GIS database (data inventory) was then used to identify, view, query, and/or develop datasets and information needed to assess habitat health and determine target priority parcels for conservation. Data used by this project were obtained from several sources. Appendix A provides a summary of the datasets and the metadata associated with the data layers extracted and/or developed for use by this project. Key datasets used to develop the decision matrix for priority parcel selection for headwater habitat conservation included:

- Data obtained from the Healthy Watershed Assessment (USEPA, 2014):
  - Mobile Bay Connectivity Metrics
  - Watershed Health Metrics
- Data obtained from existing conserved lands databases or inventories (public, easement, etc.):
  - o Forever Wild tracts
  - Alabama Department of Conservation and Natural Resources (ADCNR) tracts
  - Regulatory In lieu fee and Bank Information Tracking System (RIBITS)
  - Protected Area Database of the United States (PADUS)
  - National Conservation Easement Database (NCED)
  - AFRC tracts
- County parcel data purchased from Real Estate Portal USA, LLC (Real Estate Portal USA, 2019):
  - o Baldwin County
  - Choctaw County
  - Clarke County
  - o Marengo County
  - o Mobile County
  - o Monroe County
  - Sumter County
  - o Washington County
  - Wilcox County

Additionally, several supplemental datasets were obtained as part of the data gathering and database development phase for this project, since they were deemed important for other potential funding opportunities which may have different goals and objectives beyond the scope of this study. These additional data sources are incorporated into the GIS database and are also described in Appendix A. The supplemental datasets provide information related to other strategic areas, species of concern, and/or areas of interest identified by other relevant studies. These supplemental data layers are considered auxiliary to the key datasets and criteria used by this project but may provide beneficial information in the future. For example, they may provide additional information that can help refine parcel selection and provide



additional justification for conservation to specific funders on an as-needed or case-by-case basis. Examples of supplemental datasets obtained for the Mobile Bay Basin Habitat Atlas database include but are not limited to the following:

- Other strategic initiative databases:
  - o TNC Southeast Resilience
  - USEPA Ecological Framework Priority Ecological Areas (PEAs)
  - USEPA Significant Ecological Areas (SEAs)
  - USEPA Hubs & Corridors
  - o Gulf Coastal Plains and Ozarks, LLC (GCPO) Blueprint v 1.0
- Priority areas from other initiatives:
  - U.S. Forest Service Approved Acquisition Areas
  - o TNC Longleaf Priority Protection Areas
  - o PGCLC Conservation Vision 2014
  - o U.S. Fish and Wildlife Service (USFWS) acquisition boundaries
  - Strategic habitat and river reach units
  - Bedsole Foundation Timber Stands
- Species focused datasets:
  - At Risk Terrestrial Species
  - At Risk Aquatic Species
  - At Risk Wetland Species
  - T&E Species Critical Habitat
  - Gopher Tortoise Priority Areas of Conservation

In total, the GIS database developed for the Mobile Bay Basin Habitat Atlas contains over 80 unique datasets, provides references to more than four other databases from existing initiatives, and furnishes parcel data for nine counties. Appendix A serves as an inventory table for the Mobile Bay Basin Habitat Atlas's GIS database and provides the source(s) (origin), date, and overview of data used in this study.



# 2.2. Prioritization Criteria

The GIS database described in Section 2.1 provided the information necessary to identify and assess habitat health and prioritize opportunities for headwater habitat conservation within the Mobile Bay Basin. This section describes the framework (criteria) used to achieve the HWC grant outcome of identifying and prioritizing at least 100,000 acres of healthy, headwater habitats (target priority parcels for conservation) within the Mobile Bay Basin. The project team, consisting of staff from AFRC, MBNEP and Moffatt & Nichol, met throughout project development to determine key prioritization criteria.

These key criteria were used to determine priority headwater habitats within the Mobile Bay Basin and were first evaluated at the state-basin level before evaluation at a parcel level (Figure 5). The three key criteria developed for identifying and prioritizing opportunities for conserving healthy, headwater habitat parcels offering the greatest benefits to downstream ecological health included the following:

State-Basin Level:

- 1. Catchments with high hydrological connection to Mobile Bay as determined by and described in the 2014 HWA's Mobile Bay Connectivity Metrics (USEPA, 2014);
- 2. Catchments with high habitat health as determined by and described in the 2014 HWA's Watershed Health Metrics (USEPA, 2014); and

Parcel Level:

3. Parcel size threshold of greater than or equal to 500 acres.

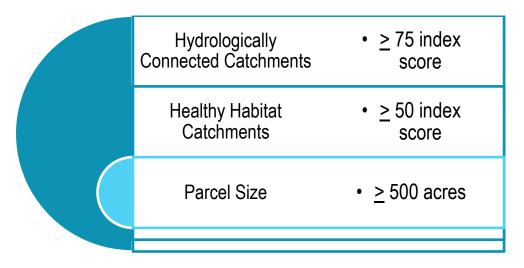


Figure 5. Basin and parcel level criteria used by the Mobile Bay Basin Habitat Atlas.



Use of these criteria (Figure 5) was essential to reduce the acreage of the Mobile Bay Basin (+20 million acres) to a manageable size (+100,000 acres) to pursue priority parcels for conservation. Additionally, this project focused on large landowners (+500 acres) for efficiencies and benefits gained by working at larger economies of scale. However, it is understood that conservation is accomplished by working with willing landowners. While this project did not evaluate parcels smaller than 500 acres, data provided by this effort in the project's GIS database can be re-queried to assess any parcel(s) of interest within the Mobile Bay Basin, allowing this project to be a useful long-term resource to AFRC, MBNEP, and their land conservation partners.

#### 2.2.1. Catchment Level Prioritization

Utilizing the data from the HWA (USEPA, 2014) criteria were established to identify conservation areas with healthy, hydrologically connected headwater habitat parcels.

#### 2.2.1.1. Criteria 1: Hydrologic Connectivity

Hydrologic connectivity metrics for catchments within the Mobile Bay Basin were obtained from the HWA (USEPA, 2014) and were used as the first prioritization criterion of this project. Three sub-index scores for mean wetness, travel time to Mobile Bay, and downstream dam storage combine to provide the overall catchment level hydrologic connectivity index score. Catchment level index scores for hydrologic connectivity with Mobile Bay range from 0 (least connected) to 100 (most connected). More information regarding this criterion is provided by USEPA (2014). Figure 6 presents the hydrological connectivity index scores of catchments located within Alabama and the Mobile Bay Basin. After careful evaluation it was determined that catchments with hydrologic connectivity index scores of 75 or greater would serve as the initial criterion towards prioritizing healthy, hydrologically connected headwater habitat parcels within the Mobile Bay Basin. Figure 7 displays the resulting catchments after application of this criterion which result in the identification of approximately 5,686,217 acres of high hydrologic connectivity with Mobile Bay. After removing existing conserved lands, this criterion yielded nearly 5,384,133 acres.



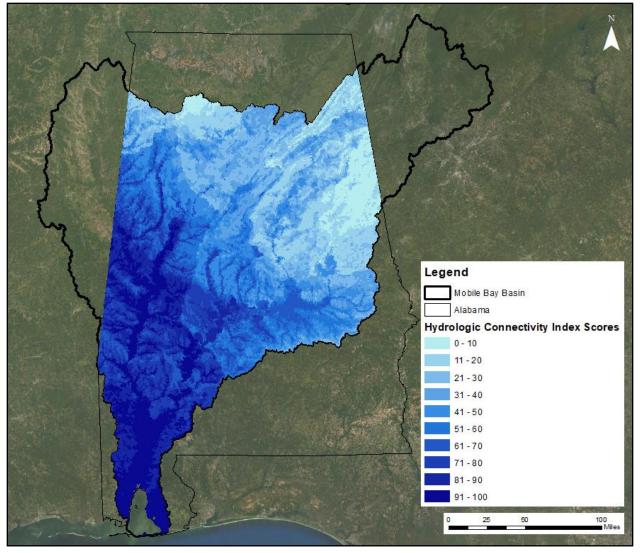


Figure 6. Hydrologic connectivity index scores to Mobile Bay (USEPA, 2014).



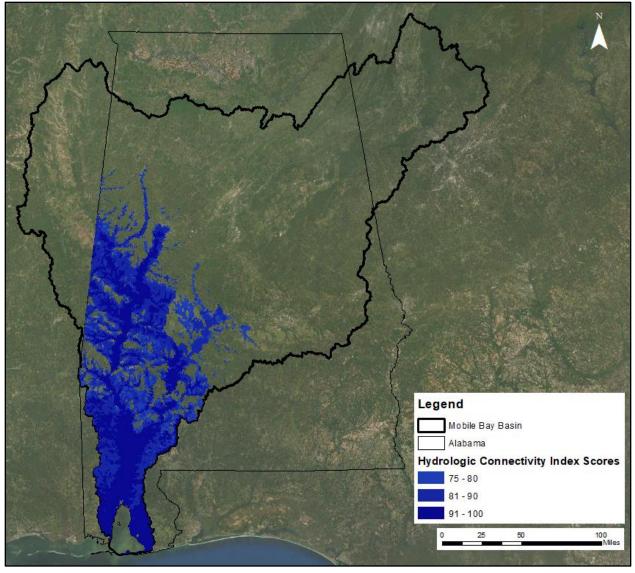


Figure 7. Catchments with hydrologic connectivity index scores 75 or greater to Mobile Bay (USEPA, 2014).



#### 2.2.1.2. Criteria 2: Watershed Health

Watershed health metrics for catchments within the Mobile Bay Basin were obtained from the HWA (USEPA, 2014) and were used as the second prioritization criterion of this project. Five sub-index scores for landscape condition, hydrologic condition, habitat condition/geomorphology, water quality, and biological condition combine to provide the overall catchment level watershed health index score. Catchment level index scores for watershed health range from 0 (least healthy) to 100 (most healthy). More information regarding this criterion is provided by USEPA (2014). Figure 8 presents the watershed health index scores of catchments located within Alabama and the Mobile Bay Basin remaining after applying the first criterion (high hydrologic connectivity with Mobile Bay). After careful evaluation by the project team it was determined that catchments with watershed health index scores of 50 or greater would serve as a secondary criterion prioritizing the healthiest of hydrologic connectivity and watershed health criteria resulted in the identification of approximately 3,048,036 acres of healthy, hydrologically connected habitats. Figure 9 displays these results. After removing existing conserved lands, these criteria identified nearly 2,924,213 acres of priority catchments (habitats).

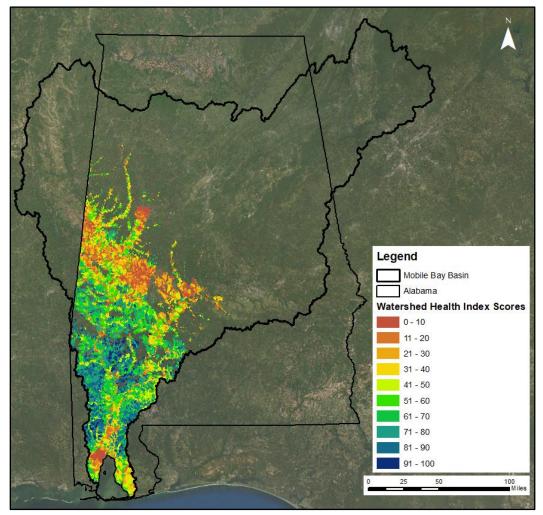


Figure 8. Catchments with watershed health index scores 50 or greater (USEPA, 2014).



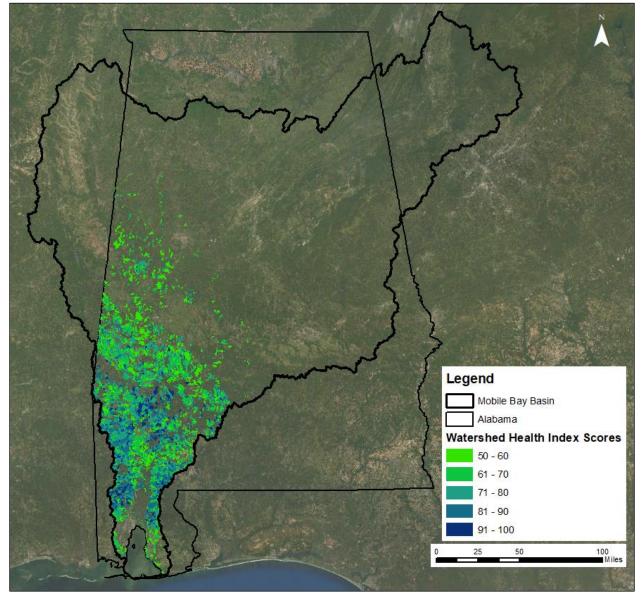


Figure 9. Catchments with high hydrologic connectivity and watershed health (USEPA, 2014).



#### 2.2.2. Parcel Level Prioritization

Data utilized from the HWA (USEPA, 2014) served as the first steps in identifying priority conservation areas with healthy, hydrologically connected headwater habitats. However, land conservation occurs at the landowner (parcel) level rather than at a catchment scale. Therefore, the next step in the prioritization process was to further evaluate the areas identified to be healthy, hydrologically connected catchments as they relate to parcel property designations.

#### 2.2.2.1. Criteria 3: Parcel Size

With land conservation, the level of effort to secure a conservation easement is often independent of parcel size. For example, a 5-acre parcel or a 500-acre parcel can each require similar levels of effort to secure conservation easements for the properties. This is because development of an easement, i.e. development of the detailed legal agreement outlining the restrictions on the landowner's uses of the property and the responsibilities of the landowner and the easement holder, is the same process regardless of parcel size. Additionally, there are more ecosystem-scale values or services gained from protecting larger connected or adjacent tracts of land (habitat), rather than multiple smaller fragmented tracts of land (habitat). Habitat fragmentation is the process by which a large expanse of habitat is transformed into multiple smaller patches of total area isolated from each other by a matrix of habitats unlike the original. Fragmentation is a key stressor known to reduce the biodiversity of ecological systems (USEPA, 2018). Furthermore, the stewardship of conservation easements is often set up to continue in perpetuity. As such, it is frequently more economical for entities which hold and maintain easements to monitor and manage contiguous easements rather than fragmented easements. This is because many of the associated costs are not proportional to the size of the easement. For example, while it may take more time to monitor larger easements, other costs such as communication with landowners and travel to the property are not related to size. Therefore, to be cost-efficient, AFRC and the project team elected to focus on parcels with areas of at least 500 acres.

As described previously, county parcel data used in this project were purchased from Real Estate Portal USA, LLC (Real Estate Portal USA, 2019). Counties of interest were based on Criteria 1 and 2. Figure 10 illustrates the counties of interest while Table 1 summarizes the county parcel data obtained for this project. Future use of the database may require the entity to purchase updated parcel level data.

County	Date of Data (Quarter - Year)
Baldwin	Q2 - 2019
Choctaw	Q4 - 2018
Clarke	Q1 - 2019
Marengo	Q3 - 2019
Mobile	Q3 - 2019

 Table 1. Summary of county parcel data (Real Estate Portal USA, 2019).



County	Date of Data (Quarter - Year)
Monroe	Q2 - 2019
Sumter	Q1 - 2019
Washington	Q1 - 2019
Wilcox	Q1- 2019

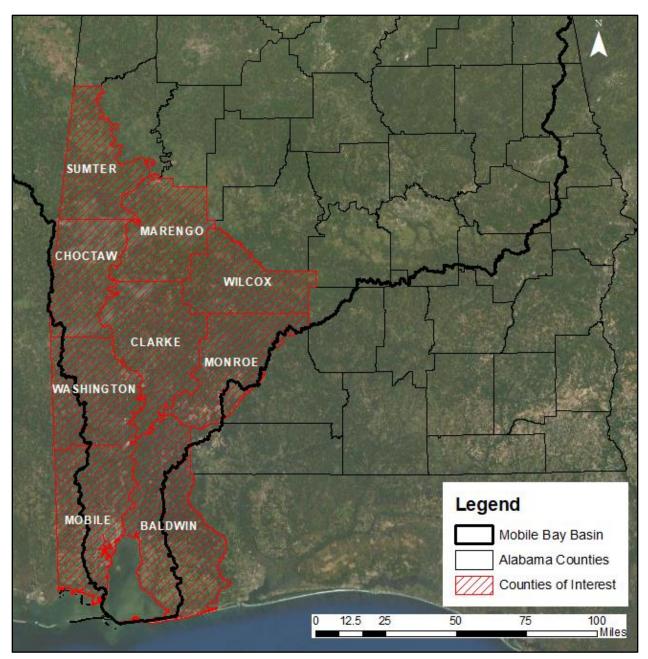


Figure 10. Nine counties pursued for parcel data.



Figure 11 displays all parcels within the nine-county area of interest which are 500 acres or larger. Approximately 509,706 acres or 852 unique parcels were identified.

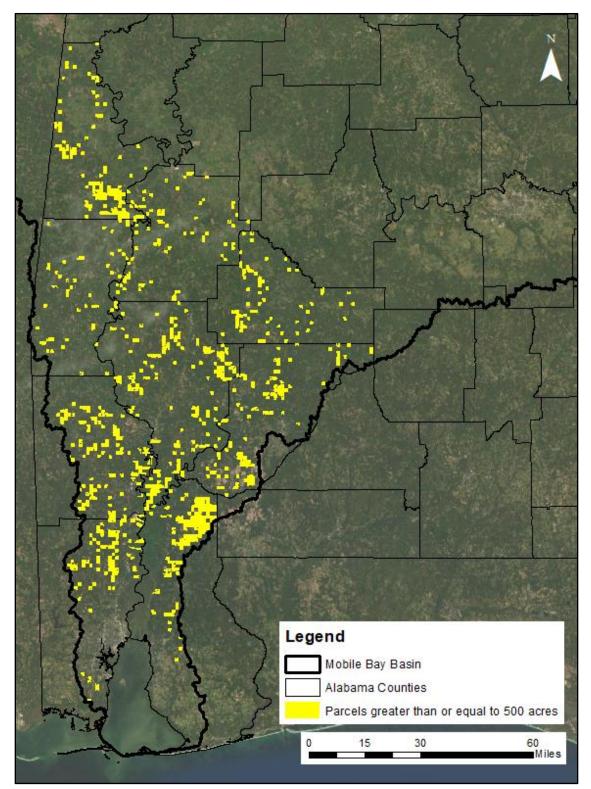


Figure 11. All parcels 500 acres or larger.



# **3.** Conservation Priorities

Prioritized catchments (Figure 9) (i.e. catchments with hydrologic connectivity index scores 75 or greater and watershed health index scores 50 or greater) were queried against priority parcels (i.e. parcels 500 acres or larger). This resulted in the identification of 739 unique parcels comprising approximately 443,665 acres that could be pursued strategically for conservation. However, this list includes all landowners, some of whom are not likely to be realistic candidates for engagement by project conservation partners. For example, property owned in Trust will not likely receive the tax benefits that may be afforded to fee simple property. Another example might include property owned by education boards or utility companies who may not be interested in permanently restricting future land uses of their property. Therefore, landowners like these are much less likely to be successfully engaged by project conservation partners and were therefore removed from this project's final priority conservation list (Figure 12).

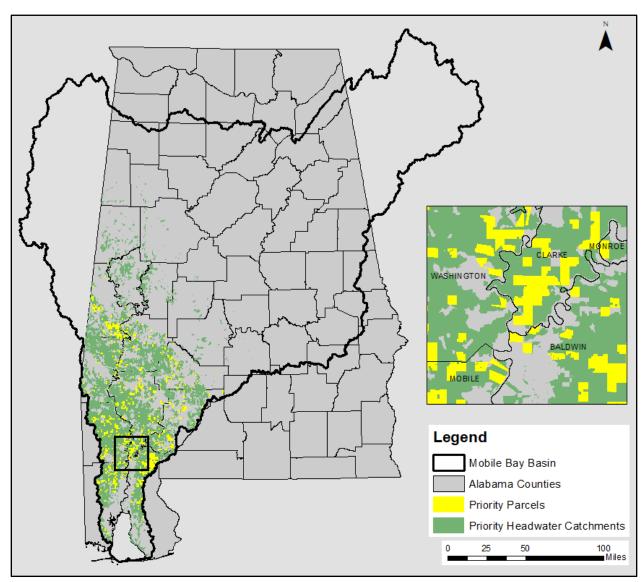


Figure 12. Priority parcels identified for headwater habitat conservation.



Figure 12 represents the final inventory of properties identified for priority headwater habitat conservation, comprising 631 unique parcels and approximately 379,616 acres. These results are displayed in more detail at a per county level in Sections 3.1 through 3.9. Additionally, Table 2 provides supplemental statistics pertaining to prioritized parcels identified for each county. The GIS database developed in association with this Atlas can be used long-term to supplement the information provided by this report, allowing project partners the ability to extract and/or re-query as future needs require or as areas of interest evolve.

County	Number of Parcels Meeting Conservation Priority Criteria	Number of Landowners	Total Area (acres) Meeting Conservation Priorities
Baldwin	92	34	58,387.83
Choctaw	33	24	18,700.03
Clarke	96	38	58,094.94
Marengo	48	28	28,118.50
Mobile	63	20	39,178.64
Monroe	71	26	41,446.70
Sumter	83	35	49,914.17
Washington	100	29	59,542.02
Wilcox	45	23	26,233.64
TOTAL	631	257	379,616.47

Table 2. Summary of parcels identified for priority headwater habitat conservation.



# 3.1. Baldwin County Conservation Priorities

Figure 13 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Baldwin County, Alabama, comprising 92 unique parcels and approximately 58,388 acres.

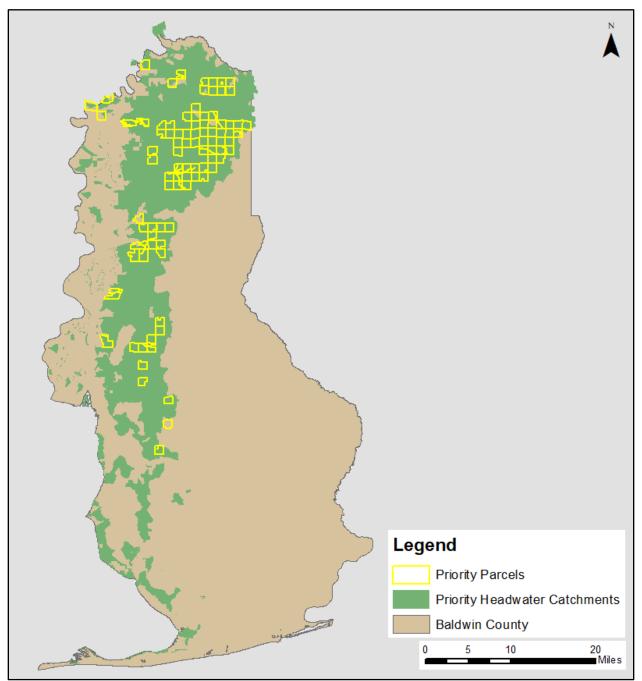


Figure 13. Priority parcels in Baldwin County, Alabama identified for headwater habitat conservation.



## **3.2.** Choctaw County Conservation Priorities

Figure 14 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Choctaw County, Alabama, comprising 33 unique parcels and approximately 18,700 acres.

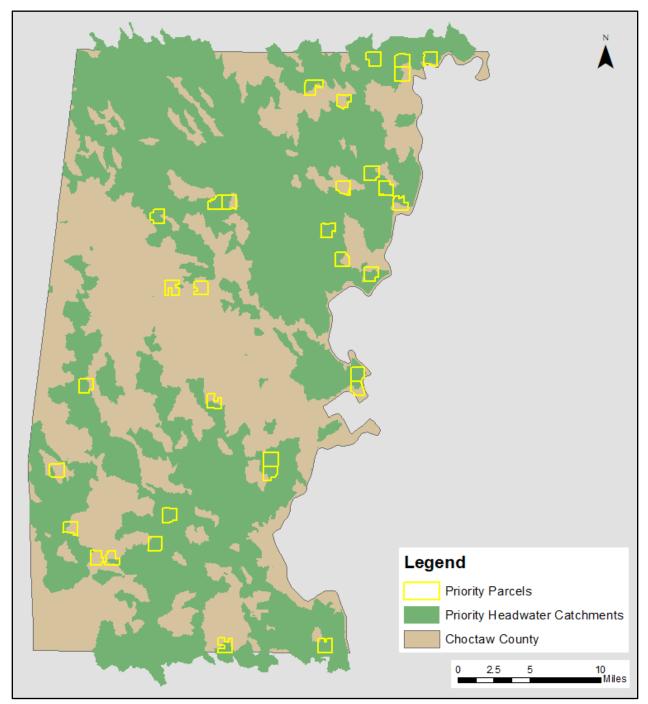


Figure 14. Priority parcels in Choctaw County, Alabama identified for headwater habitat conservation.



# **3.3.** Clarke County Conservation Priorities

Figure 15 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Clarke County, Alabama, comprising 96 unique parcels and approximately 58,095 acres.

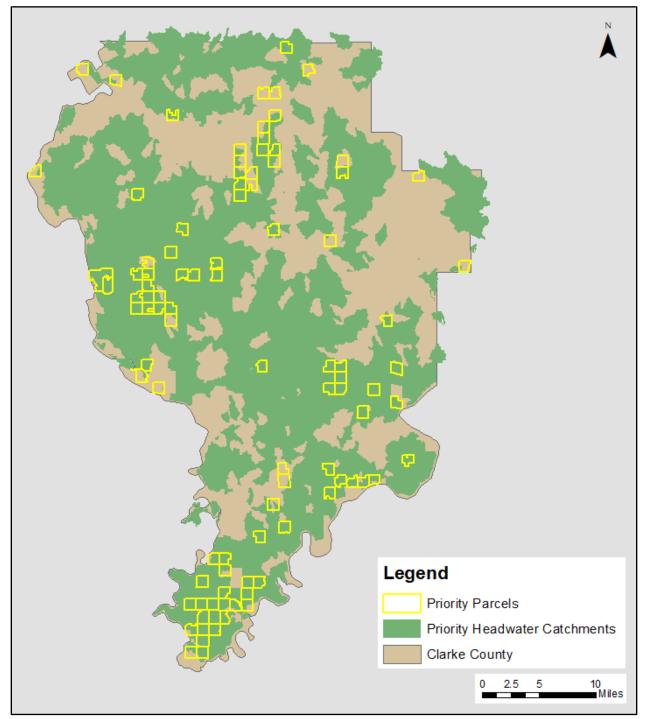


Figure 15. Priority parcels in Clarke County, Alabama identified for headwater habitat conservation.



# 3.4. Marengo County Conservation Priorities

Figure 16 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Marengo County, Alabama, comprising 48 unique parcels and approximately 28,119 acres.

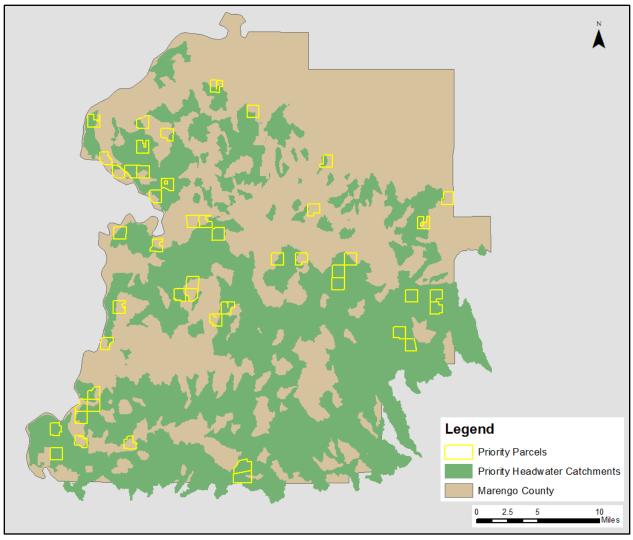


Figure 16. Priority parcels in Marengo County, Alabama identified for headwater habitat conservation.



# 3.5. Mobile County Conservation Priorities

Figure 17 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Mobile County, Alabama, comprising 63 unique parcels and approximately 39,179 acres.

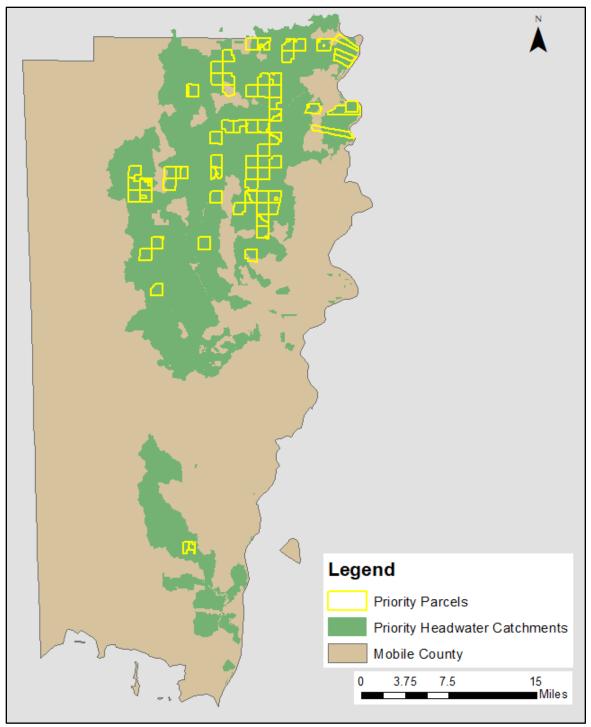


Figure 17. Priority parcels in Mobile County, Alabama identified for headwater habitat conservation.



# 3.6. Monroe County Conservation Priorities

Figure 18 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Monroe County, Alabama, comprising 71 unique parcels and approximately 41,447 acres.

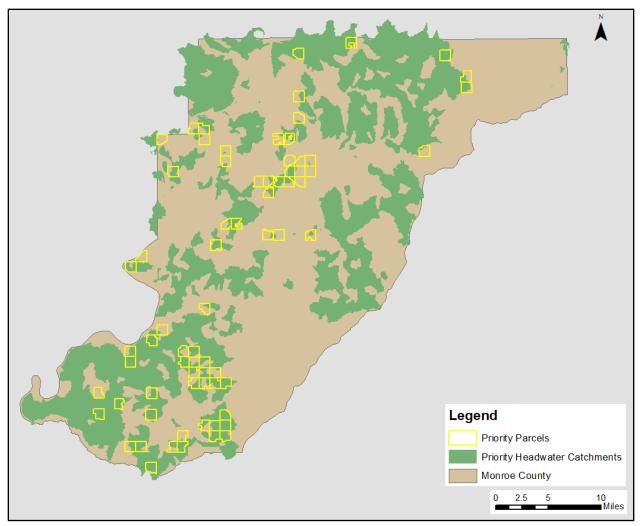


Figure 18. Priority parcels in Monroe County, Alabama identified for headwater habitat conservation.



### **3.7.** Sumter County Conservation Priorities

Figure 19 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Sumter County, Alabama, comprising 83 unique parcels and approximately 49,914 acres.

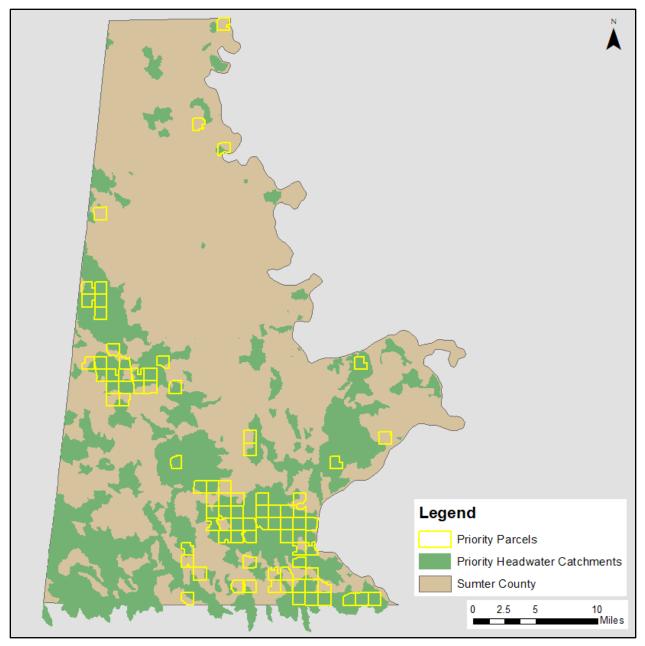


Figure 19. Priority parcels in Sumter County, Alabama identified for headwater habitat conservation.



### **3.8.** Washington County Conservation Priorities

Figure 20 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Washington County, Alabama, comprising 100 unique parcels and approximately 59,542 acres.

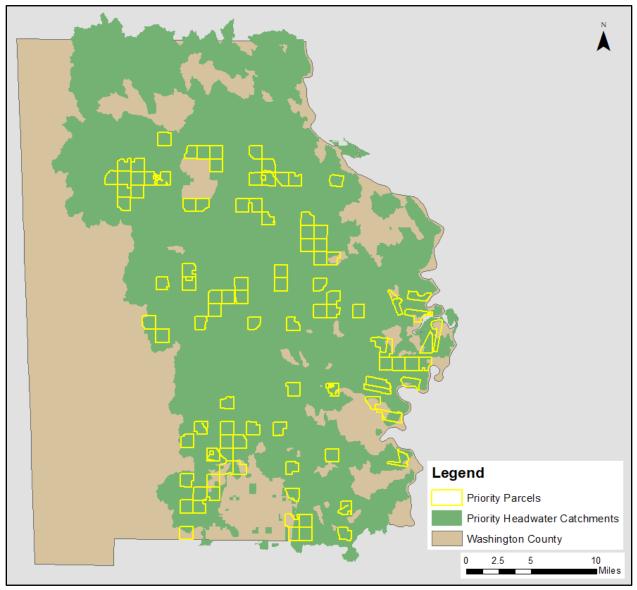


Figure 20. Priority parcels in Washington County, Alabama identified for headwater habitat conservation.



# 3.9. Wilcox County Conservation Priorities

Figure 21 provides a graphical inventory of the properties identified for priority headwater habitat conservation in Wilcox County, Alabama, comprising 45 unique parcels and approximately 26,234 acres.

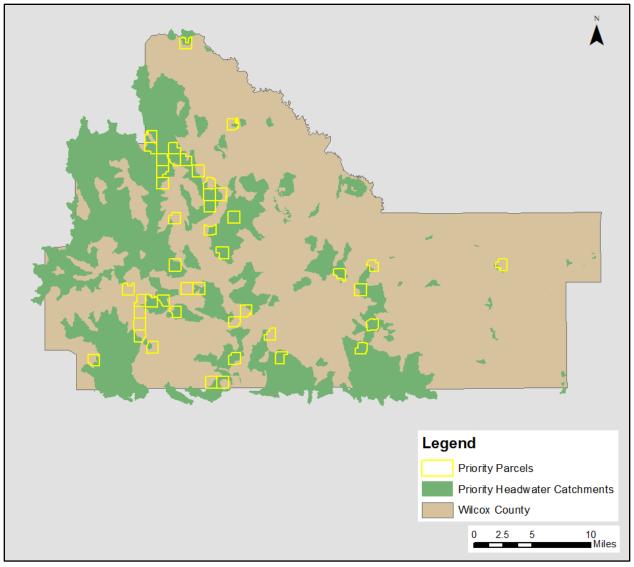


Figure 21. Priority parcels in Wilcox County, Alabama identified for headwater habitat conservation.



## 4. Conservation Tools and Funding Mechanisms

Priority areas identified for habitat conservation will require long-term site protection measures to ensure their conservation into perpetuity. There are many ways to conserve these areas, such as land acquisition, conservation easements, and other land use controls. Efforts to protect sites over the long term will require cooperation between landowners, governments, and non-profit organizations committed to the conservation of these resources.

The Partnership for Gulf Coast Land Conservation (PGCLC) developed a landowner guide to assist Alabama land trusts in engaging private landholders on their options for land conservation (PGCLC, 2018). This guide and other best management practices guides will be utilized to engage landowners as the MBNEP and AFRC pursue 100,000 acres of priority conservation areas over the next 10 years and beyond.

In general, land conservation tools include:

- Land Donation A landowner may donate portions of parcels to several entities within the State of Alabama. These include state agencies, county or city municipalities, or non-governmental organizations such AFRC, TNC, Forever Wild, or Alabama Land Trust to name a few. Tax benefits may be available.
- Fee Simple Acquisition by a Conservation Agency Fee simple acquisition involves obtaining the full rights associated with a parcel. It may include or exclude rental rights when an outright purchase of property occurs.
- **Discount Acquisition by a Conservation Agency** The strict definition of discount acquisition is the difference between the amount of unpaid principal of a mortgage and the price paid for the mortgage in the secondary market. Acquiring property would involve paying that unpaid balance.
- Conservation Easements Executed between a Conservation Agency and an Existing Landowner A conservation easement is a voluntary agreement willing landowner(s) make to permanently restrict the type and amount of development that may take place on their property in the future. Landowners grant conservation easements to protect their land from inappropriate development while retaining the rights of private ownership. The conservation easement does not necessarily exclude all development but restricts any development that would be harmful to the public benefits the easement seeks to protect. With a conservation easement, the landowner continues to own the property and may sell it, live on it, use it, or leave it to heirs; but the agreed-upon restrictions remain with the land forever. Granting of a conservation easement does not mean that landowners must grant public access to their property.

Table 3 provides a list of potential grants and funding sources which may provide financial resources and support for achieving the long-term conservation goals identified by this project. However, this list is not exhaustive, and specific criteria have not been evaluated or determined for their applicability.



Funding Source	Funder Name	Grant Name		
Deepwater Horizon (DWH)	National Fish and Wildlife Foundation (NFWF)	Gulf Environmental Benefit Fund		
DWH	NFWF	Gulf Coast Conservation Grant		
DWH	Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act)	RESTORE Bucket 1		
DWH	RESTORE Act	RESTORE Bucket 2		
DWH	RESTORE Act	RESTORE Bucket 3		
DWH	Natural Resource Damage Assessment (NRDA)	NRDA		
DWH	USFWS	North American Wetlands Conservation Act (NAWCA) Oil Spill Funds		
Federal	US Forest Service	Forest Legacy Program		
Federal	US Forest Service	Community Forest and Open Space Program		
Federal	National Oceanic and Atmospheric Administration (NOAA)	Coastal and Estuarine Land Conservation Program (CELCP)		
Federal	USFWS	NAWCA Program, Standard		
Federal	USFWS	NAWCA Program, Small Grants		
Federal	USFWS	Neotropical Migratory Bird Conservation Act		
Federal	USFWS	National Coastal Wetlands Conservation Program		
Federal	Bureau of Ocean Energy Management (BOEM)	Gulf of Mexico Energy Security Act (GOMESA)		
Federal	National Park Service (NPS)	Rivers, Trails and Conservation Assistance Program		
Federal	NPS	Outdoor Legacy Program Grant		
State of Alabama	ADCNR	Forever Wild		
State of Alabama	Alabama Department of Economic and Community Affairs (ADECA)	Land and Water Conservation Fund (LWCF) Recreational Trails Program, Outdoor Recreation Legacy Partnership. Also includes U.S. Department of Transportation Funds.		
Private	Donations of land via conservation easement, or fee by private landowners	Bargain Sale		
Private	Donations of land via conservation easement, or fee by private landowners	Donation - Conservation Easement		
Private	Donations of land via conservation easement, or fee by private landowners	Donation - Fee		
Private	Walton Foundation	Potential partner for advocacy		
Private	PGCLC	Project Assistant Fund - Due Diligence Grants		
Private	U.S. Endowment for Forestry and Communities	Healthy Watershed Consortium Grant Program		
Private	NFWF	Five Star Urban Waters Restoration Grant (includes several grants under one program)		

## **Table 3: Potential Funding Mechanisms.**



## 5. References

- Alabama Department of Conservation and Natural Resources (ADCNR). 2015. State Wildlife Action Plan <u>https://georgiaalabamalandtrust.org/wp-content/uploads/2017/08/AlabamaStateWildlifePlan</u> 2017.pdf.
- Alabama Forest Resources Center (AFRC). 2019. What we do: Our Mission. <u>https://www.forestresourcescenter.org/</u>.
- Mobile Bay National Estuary Program (MBNEP), The Nature Conservancy (TNC), and U.S. Environmental Protection Agency (USEPA) Gulf of Mexico Program (GOMP). 2006. *Conserving Alabama's Coastal Habitats: Acquisition and Restoration Priorities of Mobile and Baldwin Counties*. <u>http://www.mobilebaynep.com/images/uploads/library/Coastal-Habitat-</u> <u>Atlas1.pdf</u>.
- Mobile Bay National Estuary Program (MBNEP). 2013. Respect the Connect: Comprehensive Conservation & Management Plan for Alabama's Estuaries & Coast 2013-2018. http://www.mobilebaynep.com/images/uploads/library/CCMP\_Handout\_9-25.pdf.
- Mobile Bay National Estuary Program (MBNEP). 2017. *Mobile-Tensaw-Apalachee (MTA) Watershed Management Plan Scoping*. Prepared by Moffatt & Nichol. <u>http://www.mobilebaynep.com/images/uploads/ library/MTA\_Scoping\_Report-Final\_OCT\_2017.pdf</u>.
- Mobile Bay National Estuary Program (MBNEP). 2018. Healthy Watersheds Consortium Grant Application: Accelerating Headwater Land Protection in the Mobile Bay Basin.
- Partnership for Gulf Coast Land Conservation (PGCLC). 2018. Land Conservation in Coastal Alabama: Options for Landowners. <u>https://gulfpartnership.org/wpcontent/uploads/2018/05/Land</u> <u>ConservationInCoastalAlabama-March-29-2018-1.pdf</u>.

Real Estate Portal USA. 2019. Report All. https://reportallusa.com/.

- U.S. Environmental Protection Agency (USEPA). 2014. *Alabama & Mobile Bay Basin Integrated Assessment of Watershed Health*. EPA 841-R-14-002. Prepared by The Cadmus Group, Inc. <u>http://www.mobilebaynep.com/images/uploads/library/ALMB\_HW\_Report\_Final\_Assessment.p\_df</u>.
- U.S. Environmental Protection Agency (USEPA). 2018. Report on the Environment: Extent and Distribution. <u>https://www.epa.gov/report-environment/extent-and-distribution</u>



Appendix A: Database Metadata



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset					
Base	Base Data Layers											
1	HUC8_0315_rp_c	HUC Boundary 20151216.zip	Polygon	National Watershed Boundary Dataset	20151216	clipped to HUC 8; reprojected	HUC 8 (Alabama River)					
2	HUC8_0316_rp_c	HUC Boundary 20151216.zip	Polygon	National Watershed Boundary Dataset	20151216	clipped to HUC 8; reprojected	HUC 8 (Mobile- Tombigbee)					
3	WBD_HUC4_rp_m	HUC Boundary 20151216.zip	Polygon	National Watershed Boundary Dataset	20151216	merge of HUC 4s; reprojected	HUC 4- project AOI					
4	WBD_HUC4_rp_m_ Clip	HUC Boundary 20151216.zip	Polygon	National Watershed Boundary Dataset	20151216	merge of HUC 4s; reprojected; clipped to State	HUC 4- project AOI clipped to Alabama					
5	States_rp_c	cb_2017_us_state_500k.zip	Polygon	U.S. Census Bureau	2017	Clipped to SE states; reprojected	AL, MS, TN, FL, GA					
6	Alabama_statebounda ry	cb_2017_us_state_500k.zip	Polygon	U.S. Census Bureau	2017	Clipped to SE states; reprojected; clipped to AL	AL					
7	Counties_rp_c	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	Clipped to HUC 4; reprojected	AL, MS, TN, FL, GA					
8	Counties_AL	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; All counties Alabama	AL					
9	BaldwinCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Baldwin County, AL					
10	ChoctawCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Choctaw County, AL					
11	ClarkeCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Clarke County, AL					
12	MarengoCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Marengo County, AL					



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
13	MobileCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Mobile County, AL
14	MonroeCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Monroe County, AL
15	SumterCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Sumter County, AL
16	WashingtonCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Washington County, AL
17	WilcoxCounty	cb_2017_us_county_500k.zi p	Polygon	U.S. Census Bureau	2017	reprojected; clipped to county	Wilcox County, AL
18	NLCD_2011_LC_AL _rp	NLCD2011_LC_Alabama.zi P	Raster	National Landcover Database	2011	reprojected	AL Land use land cover
19	NWI_AL_wetlands_c _rp	AL_shapefile_wetlands.zip	Polygon	U.S. Fish and Wildlife	20180420	clipped; reprojected	AL wetlands- National wetlands inventory
Exist	ing Conserved Parcel Da	ata Layers					
1	ForeverWild_sp_rp_c	ForeverWildTracts20170417. zip	Polygon	ADCNR	20170417	Clipped to HUC4; multipart to single part; reprojected	Forever Wild Land Tracts
2	ADCNR_sp_rp_c	ADCNR Tracts20160108.zip	Polygon	ADCNR	20160108	Clipped to HUC4; multipart to single part; reprojected	ADCNR Land Tracts
3	RIBITS_sp_rp_c	RIBITS20180820.zip	Table	U.S. Army Corps of Engineers, Mobile District	20180820	KML to layer; Clipped to HUC4; Multipart to single part; reprojected	Wetland Mitigation Bank and In-Lieu Fee Tracts/Sites
4	PADUS1_4Fee_Ease ments_AL_sp_rp_c	PADUS1_4AL_Shapefile.zip	Polygon	USGS	20190101	Clipped to HUC4; multipart to single part; reprojected	Protected areas within AOI; version 1.4
5	PADUS_1_4MPA_A L_sp_rp_c	PADUS1_4AL_Shapefile.zip	Polygon	USGS	20190101	Clipped to HUC4; multipart to single part; reprojected	Marine Protected areas within AOI; version 1.4



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
6	AFRC_pre2018	AFRC2019_corrected	Polygon	AFRC	20190213	reprojected	AFRC easements to date
7	AFRC_pre2018_Clip	AFRC2019_corrected	Polygon	AFRC	20190213	Clipped to HUC4; reprojected	AFRC easements to date in AOI
8	AFRC_2018to2019	AFRC2019_corrected	Polygon	AFRC	20190213	Clipped to HUC4; reprojected	AFRC easements obtained during 2018 and 2019
9	NCED_sp_rp_c	NCED_09062018.zip	Polygon	National Conservation Easement Database (NCED)	20180906	clipped to HUC4; multipart to single part; reprojected	Private and public easements through 2018_09
	onmental Data Layers	·       ·	1 70				
1	terrestrial_at_risk_spe cies_c_rp_4b1a	4b.1.a.Terrestrial at risk species.zip	Polygon	LCC / Nicholas Institute for Env. Policy Solutions EPA EnviroAtlas - Biodiversity_SE - Natureserve	20170313	clipped to HUC4: reprojected	Number of as-risk Terrestrial species per HUC-12
2	aquatic_at_risk_specie s_c_rp_4b1b	4b.1.b.Aquatic at risk species.zip	Polygon	LCC / Nicholas Institute for Env. Policy Solutions EPA EnviroAtlas - Biodiversity_SE - Natureserve	20170313	clipped to HUC4: reprojected	Number of as-risk Aquatic species per HUC-12
3	wetland_at_risk_speci es_c_rp_4b1c	4b.1.c.Wetland at risk species.zip	Polygon	LCC / Nicholas Institute for Env. Policy Solutions EPA EnviroAtlas - Biodiversity_SE - Natureserve	20170313	clipped to HUC4: reprojected	Number of as-risk Wetland species per HUC-12
4	critical_habitat_polyg on_c_rp_4b2a	4b.2.a.Critical habitat polygon.zip	Polygon	LCC/ Nicholas Institute for Environmental Policy solutions - duke University, USFWS	20170315	clipped to HUC4: reprojected	Critical habitat essential for the conservation of T&E species



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
5	critical_habitat_line_c _rp_4b2b	4b.2.b.Critical habitat line	Line	LCC/ Nicholas Institute for Environmental Policy solutions - duke University, USFWS	20170315	clipped to HUC4: reprojected	Critical habitat essential for the conservation of T&E species
6	EBAO_eBird_count_ all_areas_c_rp	6b.High Birding Areas	Polygon	eBird Dataset	20170314	clipped to HUC4: reprojected	HUC 12's with the highest number of birding observations
7	EBND_eBird_count_ outside_highly_develo ped_areas_c_rp	6b.High Birding Areas	Polygon	eBird Dataset	20170314	clipped to HUC4: reprojected	HUC 12's with the highest number of birding observations
8	AL_statewide_SHUs_ c	Alabama Strategic Habitat Units (SHUs) and Strategic River Reach Units (SRRUs).zip	Polygon	USFWS & GSA	20150507	clipped to HUC4	AL Statewide Strategic Habitat units for imperiled species (Aquatic species of conservation concern in AL)
9	SRRUs_c	Alabama Strategic Habitat Units (SHUs) and Strategic River Reach Units (SRRUs).zip	Line	USFWS & GSA	20150507	clipped to HUC4	AL Statewide Strategic River Reach units for imperiled species (Aquatic species of conservation concern in AL)
		Gopher Tortoise Priority		NRCS East working Lands for wildlife; USFWS; MS Dept. of Wildlife; Fisheries and Parks; ADCNR; FL Fish & Wildlife conservation			Gopher Tortoise Priority
10	July_2016_gt_PACs_c	Areas of Conservation.zip	Polygon	commission;	20160908	clipped to HUC4	Areas of Conservation
11	CRITHAB_LINE_rp _c	Proposed and Final Critical Habitat Designations.zip	Line	USFWS	20140409	clipped to HUC4: reprojected	final critical habitat existing for species listed as endangered or threatened
12	CRITHAB_Poly_rp_c	Proposed and Final Critical Habitat Designations.zip	Polygon	USFWS	20140409	clipped to HUC4: reprojected	final critical habitat existing for species listed as endangered or threatened



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
13	USFWS_watershedpri orities_sept_2013_c_r p	R4 Fisheries Program Priority Watersheds.zip	Polygon	USFWS	20140423	clipped to HUC4; reprojected	USFWS Region 4 Fisheries Watershed Priorities
14	LongLeafPine_PPA_3 1_Dec2014_c_rp	TNC Longleaf Priority Protection Areas.zip	Polygon	The Nature Conservancy (TNC)	20141231	clipped to HUC4; reprojected	TNC Longleaf Priority Protection Areas
15	Bedsole_timberstands _02072019_c	bedsole.zip	Polygon	J.L. Bedsole Foundation	20190207	clipped to HUC4	Bedsole Foundation Timber Stands
16	MLGSUSR_tiers_fix_ c_rp	CombinedMed_Low.zip	Polygon	GCPOLCC	20161122	clipped to HUC4; reprojected	Combined Med/Low- gradient & upland streams and Rivers Watershed Ranks
Other	Initiative Databases						
1	_	TNC Southeast Resilience	Geodatabas e	TNC	2014	Saved to project resources	Southeast Resilience - Analysis Datasets Geodatabase; Basic-SE Resilience Database; and SE Resilience Data Stratification Grids database
2	-	EPA_Ecological_Framewor k.zip	Geodatabas e	US EPA	20130326	Saved to project resources	Southeastern Ecological framework Priority ecological areas (PEAs) and Significant Ecological Areas (SEAs) (Hubs & Corridors)
3	MBB_Catchments	HealthyWatershedsInitiative. zip	Geodatabas e	US EPA	20140600	Clipped to HUC4; joined to tables; reprojected	Healthy Watersheds Initiative - Catchments, Index scores, Metrics, Sub- Index scores
4	NHD_flowlines_0316 _rp	NHDPLUS_H_0316_HU4_ GDB.zip	Geodatabas e	National Hydrography Dataset	20180813	reprojected	Rivers and streams HUC 0316



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset	
5	NHD_flowlines_0315 _rp	NHDPLUS_H_0315_HU4_ GDB.zip	Geodatabas e	National Hydrography Dataset	20180813	reprojected	Rivers and streams HUC 0315	
6	-	GCPO Blue Print 1.0	Image	GCPOLCC	unknown	Saved to project resources	Protection opportunities	
Conse	ervation Areas Identified	l by Other Initiatives						
1	S_usa_purchaseunit_c _rp	Forest Service Approved Acquisition Areas.zip	Polygon	USFS	20170714	clipped to HUC4; Reprojected	Forest Service Approved Acquisition Areas- 1 polygon in AOI	
2	LWCF_proposed_Pur chase_areas_c_rp	LWCF Proposed Purchase Areas.zip	Polygon	USFS	20170714	clipped to HUC4; Reprojected	Parcels proposed for purchase by the Forest Service under the Land and Water Conservation Fund (LWCF) Program	
3	pgdc_conservation_vi sion_2014_10_16_c_r P	Partnership for Gulf Coast Land Conservation - Conservation Vision 2014.zip	Polygon	PGCLC	20141016	clipped to HUC4; Reprojected	PGCLC identified priority areas	
4	FWS_approved_c_rp	USFWS Approved Acquisition Boundaries.zip	Polygon	USFWS	20170412	clipped to HUC4; Reprojected	lands and waters that are approved for acquisition by the USFWS for inclusion in the National Wildlife Refuge	
5	PPAs_MigratoryLand Birds_c_rp	Priority Protection Areas for Migratory Landbirds in the Gulf Coast Joint Venture Region.zip	Raster	PGCLC	20140404	clipped to HUC 4; reprojected	Priority protection areas for migratory landbirds in the gulf coast joint venture region	
Parce	Parcel Data Layers							
1	AL_Baldwin_County_ 1003_54ed8c01	Baldwin County, Alabama 2019-Q2.zip	Shapefile	ReportAll USA	2019 -Q2		Baldwin County Parcel Data	
2	AL_Choctaw_County _1023_4bf847fb	Choctaw County, Alabama 2018-Q4.zip	Shapefile	ReportAll USA	2018-Q4	-	Choctaw County Parcel Data	



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
3	AL_Clarke_County_1 025_19142fe6	Clarke County, Alabama 2019-Q1.zip	Shapefile	ReportAll USA	2019-Q1	-	Clarke County Parcel Data
4	AL_Marengo_County _1091_b50f8495	Marengo County, Alabama 2019-Q3.zip	Shapefile	ReportAll USA	2019-Q3	-	Marengo County Parcel Data
5	AL_Mobile_County_ 1097_250e9136	Mobile County, Alabama 2019-Q3.zip	Shapefile	ReportAll USA	2019-Q3	-	Mobile County Parcel Data
6	AL_Monroe_County_ 1099_eb3af3ca	Monroe County, Alabama 2019-Q2.zip	Shapefile	ReportAll USA	2019 -Q2		Monroe County Parcel Data
7	AL_Sumter_County_ 1119_78df3229	Sumter County, Alabama 2019-Q1.zip	Shapefile	ReportAll USA	2019-Q1	_	Sumter County Parcel Data
8	AL_Washington_Cou nty_1129_bd99c721	Washington County, Alabama 2019-Q1.zip	Shapefile	ReportAll USA	2019-Q1	_	Washington County Parcel Data
9	AL_Wilcox_County_ 1131_a09b1559	Wilcox County, Alabama 2019-Q1.zip	Shapefile	ReportAll USA	2019-Q1	-	Wilcox County Parcel Data
Datas	ets Developed for Heal	thy Watersheds Grant					
1	existingconservedland s_m_d_c	ExistingConservedlands_m_ d_c.zip	Polygon	Sources 1-8 provided above for Existing conserved Parcel data layers	20190402	merge, union, clip	Merged existing conserved lands shapefile from sources 1-8 provided above. <b>Does not include</b> <b>AFRC conservation</b> <b>easements acquired</b> <b>during 2018 or 2019.</b>
2	MBB_Catchmentswo ECL	MBB_CatchmentswoECL.zi	Shapefile	US EPA	20140600	Clipped to HUC4; joined to tables; reprojected	Healthy Watersheds Initiative Catchments, Index scores, Metrics, Sub- Index scores for areas not already conserved
3	MBB_Catchments_w oECL_connectivity75	MBB_CatchmentswoECL.zi	Shapefile	US EPA	20190402	query saved to geodatabase	All catchments within the watershed with hydrologic connectivity scores of 75 or larger



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
4	MBB_Catchments_w oECL_connectivity75 health50	MBB_CatchmentswoECL.zi	Shapefile	US EPA	20190402	query saved to geodatabase	All catchments within the watershed with hydrologic connectivity scores of 75 or larger and habitat health scores of 50 or larger
5	MBB_Catchments_w oECL_75_50_final	MBB_CatchmentswoECL.zi	Shapefile	US EPA	20190402	query saved to geodatabase; clipped to state and watershed.	All catchments within the watershed with hydrologic connectivity scores of 75 or larger and habitat health scores of 50 or larger
6	MBB_Parcels_500ac	M&N_Parcel_Datalayers.zip	Shapefile	From ReportAll USA county parcel data	varied	query saved and merged into one shapefile	Merge of all (9) county parcels with $500 \ge$ acres (852 parcels)
7	Priority_Parcels	M&N_Parcel_Datalayers.zip	Shapefile	From ReportAll USA county parcel data	varied	Parcels query, intersect with priority catchments	Merge of all county parcels with $500 \ge$ acres that intersect priority catchments (739 parcels)
8	Final_PriorityParcels	M&N_Parcel_Datalayers.zip	Shapefile	From ReportAll USA county parcel data	varied	Parcels query, intersect with priority catchments	Merge of all county parcels with $500 \ge$ acres that intersect priority catchments <b>*Removed</b> <b>trusts</b> , utilities, and school board landowners (631 parcels)
9	Secondary_Priority_P arcels	M&N_Parcel_Datalayers.zip	Shapefile	From ReportAll USA county parcel data	varied	Parcels query, adjacent to existing conserved lands only	Merge of all county parcels with 500 > acres that are adjacent to existing conserved lands but don't intersect priority catchments (12 parcels)
10	BaldwinCounty_500ac	Baldwin County Q2_2019.zip	Shapefile	From ReportAll USA county parcel data	2019-Q2	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Baldwin County Parcels with $500 \ge acres$



ID	Alias Name	Original Zip File Name	File Type	Source/ Origin	Date of Data Creation/ Publication (YYYYMMDD)	Summary of Changes	Overview of Dataset
11	ChoctawCounty_500a c	Choctaw County, Alabama 2018-Q4.zip	Shapefile	From ReportAll USA county parcel data	2018-Q4	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Choctaw County Parcels with $500 \ge acres$
12	ClarkeCounty_500ac	Clarke County, Alabama 2019-Q1.zip	Shapefile	From ReportAll USA county parcel data	2019-Q1	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Clarke County Parcels with $500 \ge acres$
13	MarengoCounty_500a c	Marengo County Q3_2019.zip	Shapefile	From ReportAll USA county parcel data	2019-Q3	query saved to geodatabase;	Marengo County Parcels with $500 \ge acres$
13	MobileCounty_500ac	Mobile County Q3_2019.zip	Shapefile	From ReportAll USA county parcel data	2019-Q3	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Mobile County Parcels with $500 \ge acres$
14	MonroeCounty_500ac	Monroe County Q2_2019.zip	Shapefile	From ReportAll USA county parcel data	2019 -Q2	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Monroe County Parcels with $500 \ge acres$
15	SumterCounty_500ac	Sumter County, Alabama 2019-Q1.zip	Shapefile	From ReportAll USA county parcel data	2019-Q1	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Sumter County Parcels with $500 \ge acres$
16	WashingtonCounty_5 00ac	Washington County, Alabama 2019-Q1.zip	Shapefile	From ReportAll USA county parcel data	2019-Q1	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Washington County Parcels with $500 \ge acres$
17	WilcoxCounty_500ac	Wilcox County, Alabama 2019-Q1.zip	Shapefile	From ReportAll USA county parcel data	2019-Q1	query saved to geodatabase; clipped to watershed; clipped to remove ECL	Wilcox County Parcels with $500 \ge acres$

