

SHORELINE MANAGEMENT PROGRAM

MARTIN DAM PROJECT

FERC No. 349

Prepared by:



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SHORELINE MANAGEMENT PROGRAM

MARTIN DAM PROJECT

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
1.1	PROJECT DESCRIPTION	1-3
2.0	PURPOSE AND GOALS OF THE SHORELINE MANAGEMENT PROGRAM	2-1
3.0	SHORELINE MANAGEMENT POLICIES	3-1
3.1	SHORELINE CONSERVATION POLICY	3-1
3.2	SHORELINE MANAGEMENT POLICIES	3-2
4.0	SHORELINE MANAGEMENT CLASSIFICATIONS	4-1
4.1	SHORELINE CLASSIFICATION SYSTEM	4-1
4.1.1	PROJECT OPERATIONS	4-1
4.1.2	RECREATION	4-1
4.1.3	QUASI-PUBLIC LANDS	4-2
4.1.4	COMMERCIAL RECREATION	4-2
4.1.5	NATURAL/UNDEVELOPED	4-2
4.1.5.1	MARTIN SMALL GAME HUNTING AREA	4-3
4.1.6	30-FOOT CONTROL STRIP	4-3
4.2	SENSITIVE RESOURCES DESIGNATION	4-3
4.2.1	ALLOWABLE USES IN AREAS DESIGNATED AS SENSITIVE RESOURCES	4-4
4.2.1.1	WETLANDS	4-5
4.2.1.2	CULTURAL RESOURCES	4-5
4.2.1.3	THREATENED AND ENDANGERED SPECIES	4-8
4.3	SUMMARY OF ACRES IN EACH CLASSIFICATION	4-9
5.0	ALABAMA POWER'S SHORELINE COMPLIANCE PROGRAM	5-1
5.1	SHORELINE PERMITTING	5-2
5.1.1	PERMITTING GUIDELINES	5-3
5.1.1.1	RESIDENTIAL PERMITTING	5-4
5.1.1.2	LEGACY PERMITTING	5-6
5.1.1.3	NON-RESIDENTIAL PERMITS (NRPs)	5-7
5.1.2	PERMIT ENFORCEMENT	5-8
5.1.3	PERMIT AND RSA TRANSFERABILITY	5-8
5.1.4	PERMIT REVOCATION	5-9
5.1.5	DILAPIDATED, ABANDONED AND UNPERMITTED STRUCTURES	5-9
5.2	STRUCTURE IDENTIFICATION, ASSESSMENT AND RESOLUTION	5-10
6.0	BEST MANAGEMENT PRACTICES AND EROSION AND SEDIMENTATION CONTROL	6-1

6.1	BEST MANAGEMENT PRACTICES	6-1
6.1.1	BUFFERS AND VEGETATION MANAGEMENT.....	6-2
6.1.2	WATER QUALITY	6-2
6.1.3	PROPERTY DEVELOPMENT AND MANAGEMENT	6-3
6.2	EROSION AND SEDIMENT CONTROL	6-8
7.0	SMP REVIEW PROCESS.....	7-1
8.0	LITERATURE CITED	8-1

LIST OF TABLES

TABLE 4-1	EVALUATION MATRIX FOR SENSITIVE RESOURCE AREAS - WETLANDS	4-5
TABLE 4-2	EVALUATION MATRIX FOR COOSA SENSITIVE RESOURCE AREAS - CULTURAL RESOURCES	4-7
TABLE 4-4	MARTIN PROJECT SMP CLASSIFICATIONS	4-9
TABLE 6-1	SHORELINE BMP'S BY WHETHER THE BMP WILL BE REQUIRED OR VOLUNTARY ACCORDING TO THE SMP LAND CLASSIFICATION/SENSITIVE RESOURCE	6-6

LIST OF FIGURES

FIGURE 1-1	PROJECT LOCATION	1-4
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APPENDICES

APPENDIX A	SUMMARY OF CONSULTATION
APPENDIX B	PROPOSED USACE PGPS
APPENDIX C	DREDGE PERMIT PROGRAM
APPENDIX D	SHORELINE CLASSIFICATION MAPS (ON SEPARATE DVD)
APPENDIX E	GENERAL GUIDELINES FOR RESIDENTIAL SHORELINE PERMITTING AND PERMIT TERMS AND CONDITIONS
APPENDIX F	MARTIN UNPERMITTED STRUCTURE REPORT (ON SEPARATE DVD)
APPENDIX G	GENERAL GUIDELINES FOR NON-RESIDENTIAL AND MULTIPLE SINGLE FAMILY USE OF PROJECT LANDS AND WATERS
APPENDIX H	SHORELINE MANAGEMENT PRACTICES BROCHURE

GLOSSARY OF SHORELINE TERMS AND DEFINITIONS

TERM	DEFINITION
30-Foot Control Strip	A control strip of land along the shoreline in certain areas of the Martin Project. These control strips are located on properties once owned by Alabama Power. When sold, Alabama Power retained an easement on the control strip to act as a buffer and prohibits certain activities (e.g., habitable structures) within this classification.
Abandoned structure	A dock, walkway or other shoreline structure which is free floating and not anchored to any particular property.
Alabama Power	Alabama Power Company.
Alabama Power Fee Simple Lands	Lands owned wholly by the Alabama Power Company.
Bank / shoreline stabilization	Any activity intended to reduce the amount of erosion on the reservoir boundary (e.g., installation of sea walls, riprap, and vegetation).
BMP	Best Management Practice(s) – On-site actions generally taken by property owners to lessen impacts to a particular resource which is the result of direct or indirect use of that resource.
Boat dock	A facility for storing or mooring watercraft.
Boat ramp	A boat launch used to back a trailer into the water in order to float a vessel.
Boat slip	A fixed or floating unroofed structure, confined on three sides, used for temporary or permanent storage and/or mooring of a watercraft.
Boathouse	A fixed or floating roofed structure on Project lands and waters designed for permanent or temporary watercraft storage.
Buffer	A naturally managed vegetative filter strip designed to minimize the impacts of developed areas on natural resources.
Buffer Zone	An area of land specifically designed to separate one zoning use from another, such as separating a residential neighborhood from an industrial area.
Causeways	A man-made connection between the reservoir shoreline and an island.
Channelization	The process of diverting project waters to create an artificial waterway..
Commercial recreation facilities	Shoreline facilities operated for profit (e.g., marinas, boat ramps/launches).
Cultural resources	Sites, items, and structures of historical, archaeological, or architectural significance.
Dilapidated structure	Structures and/or facilities that are no longer serviceable.

TERM	DEFINITION
Dredging	The process of removing silt, soil or other rock material from within the full pool elevation of the Project as authorized by the Federal Energy Regulatory Commission.
Encroachment	Any use or occupancy of Project lands for which the user does not have the necessary rights or permission.
Erosion	The scouring of land or soil by the action of wind, water, or ice.
FERC	Federal Energy Regulatory Commission - An independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC is responsible for licensing non-federal hydropower Projects in the U.S.
Filling	The process of depositing soil or other materials in an area.
Gabion	Construction technique using wire mesh forms filled with rock, or concrete that often is used on shorelines and in streams to prevent erosion and provide foundational or structural support for nearby structures or soils.
Habitat	The locality or external environment in which a plant or animal normally lives and grows.
Legacy structures	Structures that predate Alabama Power's current shoreline permitting program and do not conform to current "General Guidelines for Shoreline Permitting".
Natural vegetation management	Preserving native trees, shrubs, and other plants in their natural state by limiting removal, trimming, and clearing. The intent of this set of practices is to improve soil retention, slow and filter storm water, and provide cover and forage for native species.
Non-conforming structure	A structure that does not meet Alabama Power's current "General Guidelines for Shoreline Permitting."
Operating license	The terms and conditions in which Alabama Power is granted permission by FERC to operate their hydroelectric Projects.
Permit	The written authorization from Alabama Power to an individual or entity, allowing performance of a specific activity, placement, or use of a structure and/or facility on Project lands.
Permitted facilities	Structures and/or facilities that have been issued an approved permit by Alabama Power.
Permittee	The holder of a permit approved and issued by Alabama Power.
Pier	A structure, generally providing recreational access from land to water.
Project	The lands, equipment and facilities necessary to operate a FERC licensed hydroelectric facility.
Project boundary	A line established by FERC to define the lands, waters, and structures needed to operate a licensed hydroelectric Project.

TERM	DEFINITION
Project lands	All lands within the FERC-designated Project boundaries.
Project operations	A shoreline classification that allows for limited public use. May also refer to the actual operation of the hydroelectric facility.
Rain garden	A perennial garden planted with locally adapted plants and flowers that are positioned between storm water runoff sources (roofs, driveways, parking lots) and destinations (storm drains, streets, and creeks). Rain gardens are designed to capture, retain and provide infiltration opportunities for storm water runoff, while plants and flowers remove pollutants from runoff.
Reservoir	A man-made lake into which water flows and is stored for future use and is controlled in accordance with the FERC license and U.S. Army Corps of Engineers manual, if appropriate.
Relicensing	The administrative proceeding in which FERC, in consultation with other federal and state agencies, decides whether and on what terms to issue a new license for an existing hydroelectric Project.
Riprap	Layer of large, durable materials (usually rocks) used to protect the reservoir shoreline boundary from erosion; may also refer to the materials used.
Runoff	Water from rain, melted snow, landscaping irrigation, and other sources that flows over land and into local creeks, streams, and waterways.
Seawall	A structure of stone, concrete, wood or other sturdy material built along the shoreline to prevent erosion and/or to hold back soil on steep slopes (also known as "bulkhead").
SMP	Shoreline Management Program.
Shoreline classification	A system of land use categories based on existing land use, ownership, and resource value. Used as a planning tool to help provide an overall framework for long-term shoreline management activities.
Shoreline Compliance Program (SCP)	A program initiated by Alabama Power to ensure compliance of activities that occur on Project shorelines and to implement the SMP. The six-component program includes (1) a shoreline permitting program; (2) structure identification, assessment, and resolution; (3) public education and communication; (4) a surveillance program; (5) shoreline litigation; and (6) shoreline preservation initiatives.
Shoreline development	A general reference to the many structures and uses which may be present along reservoir shorelines including homes and commercial, industrial, and recreational developments.

TERM	DEFINITION
Stakeholders	Private citizens, community groups, non-governmental organizations, and State and Federal agency representatives with interest in shoreline management activities.
Use and Occupancy	A license article, also referred to as the Standard Land Use Article, in Alabama Power's existing operating license(s) guiding Alabama Power's authority to grant permission for certain types of use and occupancy of Project lands and waters and convey certain interests in Project lands and waters for certain other types of use and occupancy.

SHORELINE MANAGEMENT PROGRAM

MARTIN DAM PROJECT
(FERC No. 349)

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

1.0 INTRODUCTION

On June 8, 2011, Alabama Power Company (Alabama Power) filed its application for a new license for the Martin Dam Project (FERC No. 349) (hereinafter "Project") with the Federal Energy Regulatory Commission (FERC). In an effort to guide existing and future management actions within the Martin Project boundary, Alabama Power's license application included a draft Shoreline Management Program (SMP) for FERC's review and approval.

On December 17, 2015, FERC issued a new license for the Project. Article 412 of the license required Alabama Power to file a revised SMP that must include, at a minimum:

- (1) a description, including acreage and a map or maps of the following seven land use classifications listed in the proposed Shoreline Management Plan filed on June 8, 2011:
(i) Project Operations; (ii) Recreation; (iii) Quasi-public; (iv) Commercial Recreation;
(v) Natural/Undeveloped; (vi) Martin Small Game Hunting Area; and (vii) 30-Foot Control Strip;
- (2) a provision for using Geographic Information System (GIS) data to record areas designated as Sensitive Resources;
- (3) a description of allowable and prohibited uses for each of the above land use classifications;
- (4) a description of best management practices, including bio-engineering techniques such as willow and wetland plantings to control erosion;
- (5) a description of the licensee's dredge permit program, as approved by the Commission on July 6, 2011;
- (6) a description of the licensee's existing Lake Shore Use Permitting Program and Shoreline Compliance Program, specific to the Martin Dam Project;

- (7) a provision to limit construction of new seawalls to instances where riprap and vegetation are not sufficient to protect shoreline habitat from erosion, and to include criteria that must be applied in approving the installation of any new seawall;
- (8) a description of the encroachments at the Martin Dam Project, including the number of encroachments that have been addressed, the method of resolution, and the number and location of encroachments that remain unresolved; and
- (9) a provision to review and update the Shoreline Management Plan over the term of the license.

Additionally, the license article required that:

The Shoreline Management Plan must reflect the project boundary modifications and the reclassification of project lands from the Natural/Undeveloped Classification to the Recreation Classification for the following project recreation sites as described in Section 4.1.1 of the proposed Recreation Plan filed December 9, 2011: (1) Madwind Creek Ramp (5.8 acres); (2) Smith Landing (4.2 acres); (3) Union Ramp (7.0 acres); (4) Bakers Bottom Landing (1.9 acres); (5) Jaybird Landing (19.9 acres); (6) Pace Point Ramp (8.7 acres); (7) Paces Trail (24.1 acres); and (8) Ponder Camp (Stillwaters Area Boat Ramp) (36.4 acres).

Alabama Power manages its hydroelectric reservoir shorelines and Project lands to comply with its FERC operating licenses and to serve the public interest by providing recreational access, protecting wildlife habitat, producing renewable low-cost electricity, and preserving cultural and aesthetic resources. Alabama Power has developed this revised SMP in an effort to meet the requirements set forth in License Article 412 and guide existing and future management actions within the Project Boundary. This revised SMP was developed in accordance with established FERC guidelines for developing SMPs and in consultation with the U.S. Fish and Wildlife Service (USFWS), U.S. Bureau of Land Management (BLM), Alabama State Historic Preservation Office (ALSHPO) and the Alabama Department of Conservation and Natural Resources (ADCNR). A summary of the consultation, copies of comments and recommendations and specific descriptions of how the revised SMP accommodates agencies' comments are included in Appendix A.

The Martin SMP is modeled after the Coosa and Warrior River Projects SMPs with the overall objective for Alabama Power to have a uniform system for managing the Project shorelines across all Alabama Power projects in the three river basins (Coosa, Warrior, and Tallapoosa).

1.1 PROJECT DESCRIPTION

The Martin Project is located in the Tallapoosa River basin in east central Alabama. The Martin reservoir extends 31 miles upstream from the Martin Dam through Coosa, Elmore, and Tallapoosa counties; the reservoir accounts for approximately 880 miles of shoreline and 9,50 acres of project land.

The lake is used for the following Project purposes: hydroelectric generation, limited flood control, storage for power generation, navigation flow augmentation, maintenance of water quality, industrial and municipal water supply, irrigation, public recreation, and habitat for fish and wildlife. Alabama Power maintains all the necessary rights for the operation and maintenance of the Martin Project.

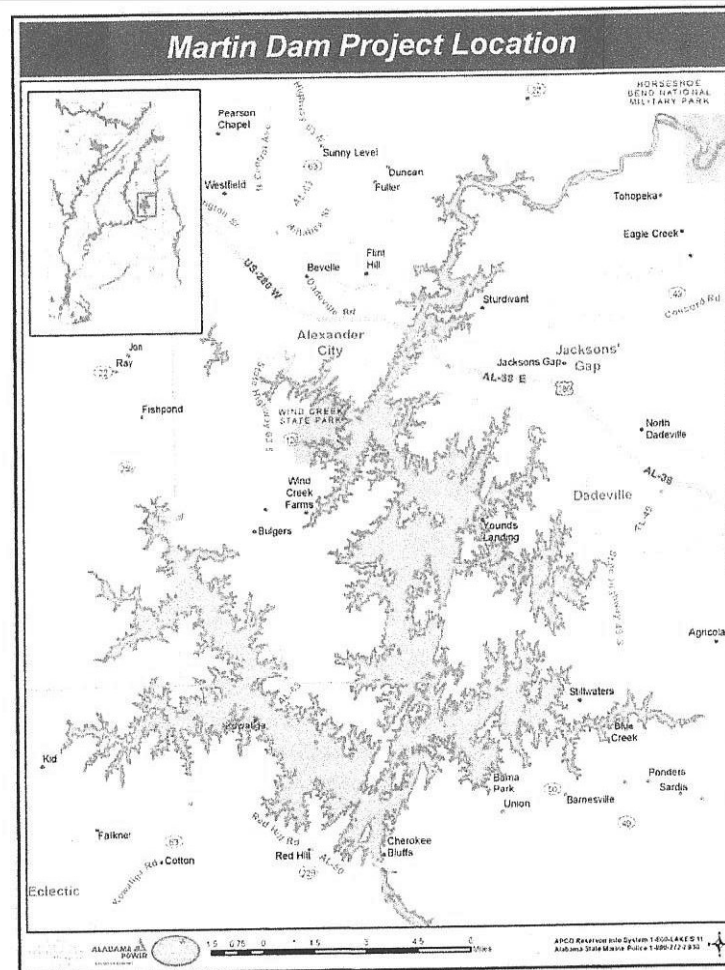


FIGURE 1-1 PROJECT LOCATION

2.0 PURPOSE AND GOALS OF THE SHORELINE MANAGEMENT PROGRAM

This SMP serves as a comprehensive guide for managing Project shoreline lands consistently with license requirements and Project purposes. The overarching goal of the SMP is to ensure that shoreline development is consistent with the protection and enhancement of environmental, scenic, cultural, and recreational values, while ensuring the continued safe and reliable production of hydroelectric power at the Project.

General goals discussed under this SMP include the following:

- facilitate compliance with license articles;
- provide for reasonable public access;
- protect fish and wildlife habitat;
- protect cultural resources;
- protect operational needs;
- minimize adverse impacts to water quality;
- minimize erosion;
- minimize adverse scenic effects; and
- guide shoreline development.

These goals are achieved through implementing this SMP and several related plans required by FERC in the December 17, 2015 license order.

3.0 SHORELINE MANAGEMENT POLICIES

The overarching Shoreline Conservation Policy and the following shoreline management policies are designed to guide existing and future shoreline management actions at the Project.

3.1 SHORELINE CONSERVATION POLICY

Alabama Power created the following policy to help guide future shoreline management actions. This policy provides a general statement affirming Alabama Power's position on shoreline resources, as follows:

Alabama Power Company actively promotes the conservation and protection of Project shoreline lands and their associated scenic, cultural, recreational, and environmental values.

Working cooperatively with other parties, Alabama Power will implement this policy through a combination of regulatory and voluntary actions. Regulatory actions include the enforcement of existing state and federal regulations including, but not limited to, the Clean Water Act, Endangered Species Act, Wetlands Protection Act, National Historic Preservation Act, and the Federal Power Act. Regulations under these statutes are enforced by the appropriate state and federal resource agencies working in cooperation with Alabama Power and Alabama Power's Shoreline Compliance Program (SCP), which is discussed in Section 5.0. Alabama Power will work with other parties, including private property owners, to promote a set of shoreline best management practices (BMPs) designed to protect and enhance valuable shoreline resources in addition to resources specifically protected by existing laws and regulations.

In addition to the overall policy to guide shoreline management actions, several other key policies have been incorporated to support and uphold management decisions concerning the Project.

3.2 SHORELINE MANAGEMENT POLICIES

Bank Stabilization: Considerable concern has been expressed regarding the use of seawalls for bank stabilization. Such structures typically impact aquatic habitat (and provide little aquatic habitat value), often increase run-off (particularly if all woody vegetation is removed), and are not sustainable without continued, long-term maintenance. In many cases, such structures can degrade bank stability over time, either at the site of construction or adjacent to it.

Rip rap and natural bank stabilization are the preferred methods of erosion control; however use of seawalls will be evaluated and may be approved on a case-by-case basis. Alabama Power generally restricts the use of new seawalls to areas where there is:

- evidence of significant active erosion,
- high potential for substantial wave action (due to the area's location on open waters),
- heavy and/or frequent boat traffic,
- a previously installed seawall which has failed,
- a combination of the above.

Alabama Power is currently working the USACE to renew its programmatic general permits (PGPs), which govern certain aspects of bank stabilization. The current proposed PGPs are included in Appendix B. Activities not covered by these PGPs may require additional approvals.

Alabama Power Company encourages the use of alternative bank stabilization techniques other than seawalls. Such alternatives include, but are not limited to, riprap, bioengineering techniques, natural vegetation with riprap, and gabions. Alabama Power requires, as a condition of a permit, that any future seawall proposals include the placement of riprap, for fish and other semi-aquatic species habitat and increased stability, in front of the seawall. Only in very limited cases where the Alabama Power regional coordinator is convinced that riprap would not be an effective source of bank stabilization, or would be economically unfeasible, would seawalls without riprap be permitted.

Dredging: Alabama Power conducts its dredging activities according to the July 6, 2011 FERC-approved Dredge Permit Program and its operating licenses (Appendix C). The Dredge Permit Program was developed in consultation with the U.S. Army Corps of Engineers (USACE) and

other agencies and covers all of Alabama Power's hydroelectric Projects on the Warrior, Coosa, and Tallapoosa Rivers. The program establishes the process and procedures for permittees seeking to obtain direct authorization from Alabama Power for dredging activities up to 500 cubic yards (CY) of material (below the full pool elevation). The Program is not intended to cover applications for dredging on lands determined to be "sensitive" as noted within each Project's respective SMP.

Dredging may be allowed but will be restricted in and around sensitive resource areas. Requests for dredging will be considered on a case-by-case basis and must be approved by Alabama Power prior to the initiation of any dredging operations.

Channelization: Alabama Power receives numerous inquiries from property owners adjacent to its reservoirs concerning the excavation of channels and sloughs to create additional shoreline. Typically, these proposals involve removal of soil adjacent to the reservoir in order to divert Project waters onto non-project land for developmental purposes. Any such changes to the shoreline constitute a deviation from Alabama Power's FERC-approved maps and can have significant impacts to fish and wildlife habitat. In addition, allowing channelization can lead to uncontrolled development of Project lands and waters and can create conflict between adjoining property owners.

It is the policy of Alabama Power to prohibit channelization on its reservoirs. This general prohibition includes channelization proposals by both private and commercial interests. Alabama Power's channelization policy is an important element of Alabama Power's efforts to best manage Project lands and waters consistent with its FERC-issued licenses, to control shoreline development, and to protect habitat and other natural resource features of these Projects.

Water Withdrawals: Alabama Power impounds a substantial amount of water in its Project reservoirs and, as a result, various entities seek permission to use these reservoirs to meet municipal, industrial, and agricultural water supply needs. Since these withdrawals require the use of Alabama Power's Project lands and waters, FERC has jurisdiction over these "joint uses." For this reason, FERC has included provisions in Alabama Power's license that require Alabama

Power to obtain FERC authorization before permitting a water withdrawal greater than 1 million gallons per day (MGD) from a Project reservoir. FERC has delegated approval authority to Alabama Power for joint uses of 1MGD or less. Furthermore, the license states that Alabama Power may receive reasonable compensation for the impacts of the withdrawal of water from the Project. Through either specific FERC authorization or through its delegated authority, Alabama Power has approved numerous water withdrawals from its Project reservoirs and has charged withdrawers a reasonable cost for the resulting impacts on Alabama Power's hydroelectric lands and operations, consistent with these license provisions. Among other things, the compensation policy is intended to encourage conservative use of water and promote the development of additional water storage facilities in Alabama.

It is the policy of Alabama Power to evaluate each application for permission to withdraw water from its Project reservoirs, and, in appropriate circumstances, seek FERC authorization to permit water withdrawals on Project lands. In accordance with the provisions of its licenses, Alabama Power will receive reasonable compensation, as applicable, for water withdrawals. This reasonable compensation may include administrative costs, the replacement cost of the energy lost as a result of the withdrawal and the replacement cost of the storage in the reservoir allocated to the withdrawer. Adjacent single-family home uses, such as lawn/garden watering or other similar de minimus uses are excluded from this policy.

Causeways: Many of Alabama Power's reservoirs have islands which lie relatively close to the shore of the mainland or other islands. From time to time, Alabama Power receives a request for permission to construct a causeway to connect an island to the mainland or other islands to facilitate development or some other use. In most cases, creating a causeway involves placing fill material within Alabama Power's reservoir. Filling of Project lands and waters may destroy fish habitat, impair navigability, and reduce the available storage in the reservoir for power generation and flood control. In addition, changes to the shoreline caused by the construction of causeways constitute a deviation from FERC-approved Project maps and exhibits.

It is the policy of Alabama Power to prohibit the creation of causeways on its reservoirs to connect islands to the mainland or to other islands. This policy is intended to protect the integrity of the existing Project features and shoreline, as well as fish habitat, navigation, and Project operations. When Alabama Power receives an inquiry concerning the construction of a causeway, Alabama Power will work with the property owner to investigate potential alternatives that may be acceptable to Alabama Power and FERC.

4.0 SHORELINE MANAGEMENT CLASSIFICATIONS

Alabama Power's shoreline classifications for the Project are based on an evaluation of existing land use, land ownership, and knowledge regarding shoreline resource values. Descriptions of the shoreline classifications, descriptions of allowable and prohibited uses for each of the classifications, and the table depicting the acreage in each classification are described in detail below.

4.1 SHORELINE CLASSIFICATION SYSTEM

In consultation with stakeholders, Alabama Power developed a shoreline classification system to guide management and permitting activities within the Project boundary. The shoreline classifications are based on an evaluation of existing land use. Information about current use of land abutting the Project boundary provided a baseline for determining the most appropriate designations for shoreline property within the Project boundary. For example, the presence of a residential area immediately outside of an undeveloped strip of land within the Project boundary generally would preclude classifying that Project land as Natural/Undeveloped. Appendix D provides the shoreline classification maps for each Project development.

The seven shoreline classifications for the Project lands are defined below.

4.1.1 PROJECT OPERATIONS

This classification includes Project lands reserved for current and potential future operational activities. This includes all Project lands used for hydroelectric generation, switchyards, transmission facilities, rights-of-way, security, and other operational uses. Alabama Power owns these lands in fee simple title. For security, the allowable uses in this classification are primarily restricted to Alabama Power personnel; however, in some cases, such as guided public tours, limited public access is available. 280 acres of land are classified for Project Operations.

4.1.2 RECREATION

This classification includes Project lands managed by Alabama Power for existing or potential future recreational activities. This includes land that is developed for public recreation, open

space, water access, and future recreational development. Alabama Power typically owns these lands in fee simple title, but they may be operated by a third party under a lease agreement with Alabama Power. The allowable uses in the Recreation classification include public access and day and evening recreational use. This classification may allow structures, such as parks with boat slips, beach areas, etc. to be permitted through the appropriate process, as described in Section 5.1 below and the Martin Recreation Plan. 335 acres of land are classified for Recreation.

4.1.3 QUASI-PUBLIC LANDS

These lands are generally owned by Alabama Power and are leased to non-profit groups to provide a natural, outdoor, recreational setting for the enjoyment of said groups. These areas provide an enriched outdoor experience that contributes to the objectives of Licensee approved groups such as scouts, youth organizations, service clubs, and educational groups. Organizations interested in the use of these lands are required to submit detailed plans for facilities they propose to construct and lease, along with details of how the proposed facilities would be maintained by the organization on a long-term basis. Development of these lands is generally subject to approval by FERC through the process outlined in Section 5.1.1. 237 acres of lands are classified as Quasi-Public.

4.1.4 COMMERCIAL RECREATION

These lands contain existing concessionaire-operated public marinas and recreational areas that provide a wide variety of recreational services to the public on a fee basis. Structures on these lands are generally subject to approval by FERC through the process outlined in Section 5.1.1.3. 41 acres of lands are classified as Commercial Recreation.

4.1.5 NATURAL/UNDEVELOPED

Lands included in the Natural/Undeveloped classification include Project lands which will remain undeveloped for the following specific Project purposes:

- protecting environmentally sensitive areas;
- preserving natural aesthetic qualities;
- serving as buffer zones around public recreation areas; and

- preventing overcrowding of partially developed shoreline.

This classification allows for public hiking trails, nature studies, primitive camping, wildlife management (excluding hunting, except in the Martin Small Game Hunting Area), and normal forestry management practices. Alabama Power typically owns these Project lands in fee simple title and manages them for effective protection of associated resource values. 7,449 acres of lands are classified as Natural/Undeveloped.

4.1.5.1 MARTIN SMALL GAME HUNTING AREA

The Martin Small Game Hunting area is a sub-classification of Natural/Undeveloped lands and is located adjacent to Jaybird Landing. This area will be managed according to the Martin Wildlife Management Program, approved as part of License Article 409, and subject to state game laws. There are 528 acres of lands within the Martin Small Game Hunting Area.¹

4.1.6 30-FOOT CONTROL STRIP

Lands included in the 30-Foot Control Strip classification include Project lands located within a control strip of land along the shoreline in certain areas of the reservoir. These easements are located on properties once owned by Alabama Power. When sold, Alabama Power retained an easement on a 30-foot control strip and prohibits certain activities (e.g., habitable structures) within this classification. 635 acres of land are classified as 30-Foot Control Strip.

4.2 SENSITIVE RESOURCES DESIGNATION

“Sensitive Resources” is a designation used in conjunction with the shoreline classifications (e.g., Recreation, Natural/Undeveloped, etc.), as appropriate. For example, a portion of an area classified as “Recreation” may also be designated as “Sensitive Resources.” This designation is used on Project lands managed for the protection and enhancement of resources which are protected by state and/or federal law, executive order, and where other natural features are present which are considered important to the area or natural environment. This may include

¹ The 528 acres classified as “Martin Small Game Hunting Area” are not included in the 7,451 acre total noted for the “Natural/Undeveloped” classification, even though “Martin Small Game Hunting Area” is considered a sub-classification of “Natural/Undeveloped.”

cultural resources, sites and structures listed on, or eligible for listing on, the National Register of Historic Places (NRHP); wetlands; floodplains; Rare, Threatened, and Endangered species (RTE) habitat protection areas; significant scenic areas; and other sensitive ecological areas. Federal and state regulations require information concerning the Sensitive Resources designation to remain confidential or proprietary.

Permitted activities in these areas, if applicable, may be highly restrictive or prohibited in order to avoid potential impacts to sensitive resources. A geographic information system (GIS) data layer that includes all known sensitive resource areas has been developed that provides information to Alabama Power Shoreline Representatives on the areas designated as Sensitive Resources. This GIS data layer is continuously updated as new information becomes available and Alabama Power will continue to use this GIS layer to record areas designated as Sensitive.

When an area is designated as Sensitive Resources, an environmental review by Alabama Power’s Environmental Affairs Department (EA) is triggered. This review must be completed prior to permitting. Of the 880 miles of shoreline within the Project boundary, 82.5 miles are currently designated as Sensitive Resources. Areas designated as Sensitive Resources are dynamic, meaning they may expand and contract as new information becomes available (e.g., Rare, Threatened and Endangered (RTE) species habitat may be identified or areas included in the Historic Properties Management Plan (HPMP) are surveyed and are either cleared or confirmed to have historical significance).

The allowable uses in the Sensitive Resources designation are described below.

4.2.1 ALLOWABLE USES IN AREAS DESIGNATED AS SENSITIVE RESOURCES

Alabama Power has developed Evaluation Matrices (Tables 4-1 and 4-2) for permitting activities on lands designated as Sensitive Resources within the Martin Dam Project boundary. These Evaluation Matrices for residential shoreline permits² will expedite the Alabama Power permitting process, and ensure the protection of cultural resources, and wetlands.

² Non-residential permits are reviewed in a separate process. Alabama Power evaluates the non-residential permits based on shoreline classification and agency review is required.

4.2.1.1 WETLANDS

The Sensitive Resources GIS data layer contains information on Project wetlands taken from surveys completed by Alabama Power's wetlands experts and areas identified on National Wetland Inventory (NWI) maps.

In addition, Alabama Power Shoreline Management Representatives receive training on the more common features of wetlands. If they suspect wetlands are present in an area where a permit has been requested, they will forward the permit to EA for review just as they would if the area had been designated as Sensitive Resources.

Any disturbance within wetlands is discouraged; however, a permittee who wishes to pursue a Project within wetlands is likely to incur additional expenses for Project modification, avoidance, mitigation and review by multiple agencies.

TABLE 4-1 EVALUATION MATRIX FOR SENSITIVE RESOURCE AREAS - WETLANDS

SMP PERMITTED ACTIVITY	WETLANDS PRESENT
Boat Ramps – construction and maintenance	Must be less than 1000 sq ft below the full pool or in wetlands. No more than 20 ft wide. No fill material is to be placed in wetlands.
Shoreline Stabilization ³ – new construction and extension of existing	No vegetated wetland may be filled. Shoreline protections must be designed to allow the normal hydrologic regime to be maintained.
Spoil Area	Spoil materials may not be placed in waters of the U.S., including wetlands. Spoil must be removed to an upland area.

4.2.1.2 CULTURAL RESOURCES

Cultural resources include archaeological and historic sites. The Martin Dam Project Programmatic Agreement (PA) and Historic Properties Management Plan (HPMP), which are the governing documents, contain guidance on managing the Project in relation to the presence, or potential presence, of archeological and historic properties. No disturbance is allowed on the

³ According to USACE guidelines, a site must exhibit active shoreline erosion before stabilization is allowed.

site of any known cultural resources or on a site which is scheduled to be surveyed for the presence of cultural resources, prior to consulting with Alabama Power's EA. EA personnel will determine if either type of site is present and if further testing is required. In addition, if human remains, historic resources, or archaeological resources are discovered during any construction, all activities shall cease, and the permittee or its contractor shall contact Alabama Power immediately. Upon completion of all required consultations, EA will contact Alabama Power's Shoreline Management Representative with notice that the permitted activity may proceed.

The Sensitive Resources GIS data layer identifies known archaeological sites and areas selected in the IIPMP to be surveyed for the presence of cultural resources. If no historic or archaeological properties are discovered when the selected areas are surveyed, the Sensitive Resources designation will be removed from those lands.

Alabama Power Shoreline Management Representatives will be trained annually on how to identify areas with a high potential to contain archaeological properties. If an activity is permitted in an area that is not currently designated as Sensitive Resources on the GIS data layer, the Alabama Shoreline Representative will notify EA of any indication of the potential for cultural resources at the site. EA will visit the site and conduct the appropriate level of archeological/historic testing and/or evaluation, if necessary.

TABLE 4-2 EVALUATION MATRIX FOR COOSA SENSITIVE RESOURCE AREAS - CULTURAL RESOURCES

SMP PERMITTED ACTIVITY	CULTURAL RESOURCES PRESENT
Piers and walkways – construction and maintenance	<p>According to the HPMP, if known cultural resources are present:</p> <ol style="list-style-type: none"> 1. Determine if the activity will affect cultural resources. If yes, move to Step 2. If no, proceed with permitting process. 2. Determine if the cultural resources are significant. <ul style="list-style-type: none"> o Check Alabama State Site File. o Contact SHPO, if needed. If yes, move to Step 3. If no, proceed with permitting process. 3. If cultural resources are significant, one or more of the following actions will occur. <ul style="list-style-type: none"> o Contact SHPO. o Conduct a field survey. o Avoid the area, relocate the permitted activity. o Conduct additional testing. <p>According to the HPMP, if the area is scheduled to be surveyed for cultural resources:</p> <ol style="list-style-type: none"> 1. Determine if the activity will affect cultural resources. If yes, move to Step 2. If no, proceed with the permitting process. 2. Review the permit application to determine if the area has been disturbed and/or developed. If no, move to Step 3. If yes, proceed with the permitting process. 3. If area has not been disturbed or developed, one or more of the following actions will occur. <ul style="list-style-type: none"> o Contact SHPO. o Conduct a field survey. o Avoid the area, relocate the permitted activity. o Conduct additional testing.

SMP PERMITTED ACTIVITY	CULTURAL RESOURCES PRESENT
Floating and Stationary Boathouses, Wetslips, and Boatslips with anchoring – construction and maintenance	This activity may be allowed or restricted based on coordination with SHPO, in accordance with the HPMP. See piers and walkways procedure.
Marine Rails – construction and maintenance	This activity may be allowed or restricted based on coordination with SHPO, in accordance with the HPMP. See piers and walkways procedure.
Boat Ramps – construction and maintenance	This activity may be allowed or restricted based on coordination with SHPO, in accordance with the HPMP. See piers and walkways procedure. If the boat ramp construction requires excavation, see procedure listed for spoil.
Shoreline Stabilization – new construction and extension of existing shoreline stabilization structures	This activity may be allowed or restricted based on coordination with SHPO, in accordance with the HPMP. See piers and walkways procedure.
Dredging/Spoil Area	All dredging requires review by EA. All spoil area determination requires consultation with SHPO, unless spoil will be located behind an existing seawall or in an approved landfill.
Repair of an existing erosion site	This activity may be allowed or restricted based on coordination with SHPO, in accordance with the HPMP. See piers and walkways procedure.

4.2.1.3 THREATENED AND ENDANGERED SPECIES

Alabama Power is required to comply with the Endangered Species Act for all federally listed RTE species. Studies conducted from 2009 to 2011 indicated that there are currently no RTE species located at the Project. However, if any RTE species are discovered in the future, their location and an appropriate buffer around their location will be included in the Sensitive Resources GIS layer.

4.3 SUMMARY OF ACRES IN EACH CLASSIFICATION

Table 4-3 shows the acreages associated with each SMP classification as well as the Sensitive Resources designation.

TABLE 4-3 MARTIN RESERVOIR SMP CLASSIFICATIONS

CLASSIFICATION	ACRES	SHORELINE MILES ⁴	SHORELINE MILES SENSITIVE
Project Operations	280	2.0	1
Recreation	335	8.4	0.6
Quasi-Public	237	6.3	0
Commercial Recreation	41	2.7	0
Natural/Undeveloped	7,449	168.5	58.5
Martin Small Game Hunting Area ⁵	528	3.5	3
30-Foot Control Strip	635	179.7	5.4
Unclassified ⁶	N/A	507.4	14
TOTAL	9,505	878.5	82.5

⁴ Shoreline Miles represents the Martin Reservoir only; there is no shoreline associated with the Project tailrace as there are no Project waters below the dam. All waters and associated shoreline below Martin Dam are associated with the Yates and Thurlow Project (FERC No. 2407).

⁵ Sub-classification of Natural/Undeveloped, but acreage is not included in Natural/Undeveloped total.

⁶ There is no acreage associated with unclassified lands as this category represents the number of shoreline miles where Alabama Power has no Project lands above the 491 ft msl (490 ft Martin Datum) contour.

5.0 ALABAMA POWER'S SHORELINE COMPLIANCE PROGRAM

FERC is responsible for issuing licenses for the construction, operation, and maintenance of non-federal hydropower projects. Alabama Power, as the licensee, is responsible for operating and maintaining its FERC-licensed Projects in accordance with the license requirements and Project purposes (e.g., power generation, public recreation, environmental protection, aesthetic values). According to the provisions of its license, Alabama Power may authorize specific uses and occupancies of the Project reservoir's shoreline that are not related to hydroelectric power production or other Project purposes. Such uses of land and water are typically referred to as "non-project uses."

In 1992, Alabama Power initiated a formal permitting program for all 12 of Alabama Power's hydroelectric reservoirs. Under a Programmatic General Permit (PGP), the USACE granted Alabama Power permission to issue permits under the auspices of the USACE Mobile District Office. Alabama Power follows the guidelines and the Coordination Agreement set forth by the USACE in the PGP closely⁶.

In 2006, Alabama Power instituted an enhanced Shoreline Permitting Program, and in 2009 Alabama Power began identifying both permitted and unpermitted structures around its reservoirs and conducting surveillance quarterly. In 2011, Alabama Power increased the frequency of reservoir surveillance from quarterly to monthly. Alabama Power filed a SCP on March 14, 2012 with FERC that incorporates Alabama Power's existing programs and processes along with a method to assess and resolve non-permitted structures on each of its reservoirs. FERC acknowledged the SCP in a letter issued on August 17, 2012. The SCP includes six components:

- (1) shoreline permitting;
- (2) structure identification, assessment, and resolution;
- (3) public education and communication;

⁶ Alabama Power is currently working with the USACE to establish a new set of PGPs; the previous PGP agreement expired on March 9, 2016. Until a new set of PGPs is issued, Alabama Power will continue to require applicants to follow the appropriate existing USACE Nation-wide permits, state general permits and/or individual applications, as applicable.

- (4) surveillance program;
- (5) shoreline litigation; and
- (6) shoreline preservation initiatives.

The SCP also provides details on the legacy structure assessment and resolution process for which Alabama Power has developed specific guidelines (see Appendix E). Additionally, Alabama Power has included a brief discussion of the encroachments at the Martin Dam Project in Section 5.2. A full description of the encroachments on the Martin Project, as required by License Article 412, including the number of encroachments that have been addressed, the method of resolution, and the number and location of encroachments that remain unresolved, and a schedule for addressing unpermitted structures is included in Appendix F.

5.1 SHORELINE PERMITTING

A permit is needed when an activity proposed by an entity, often a shoreline property owner, could affect lands within the Project boundary. Activities requiring permits include, but are not limited to, construction or modification of boat docks, boathouses, piers, shoreline stabilization materials (e.g., sea walls, riprap), and any activity that requires conveying an interest in, on, or across Project lands. Any development or construction along reservoir shorelines and within the Project boundary must be permitted before work can begin. Depending on the nature, size, and location of the proposed activity, Alabama Power may implement a phased approach for permitting in which permits are issued sequentially for components of large developments. Compliance with initial conditions is required before subsequent permits can be issued. Certain activities may be restricted or prohibited on shorelines designated as Sensitive Resources.

FERC has defined three levels of use in the Use and Occupancy Article⁷. Uses covered in Paragraph (b) of the article typically involve residential piers, boat docks, and retaining walls. FERC has delegated the authority to review and approve these types of uses to Alabama Power. Uses covered in Paragraph (c) involve the conveyance of easements, rights-of-way, or leases and typically include activities such as replacement or maintenance of bridges and roads and structures such as: storm drains and water mains; telephone, gas, and electric distribution lines;

⁷Article 414 of Alabama Power's Martin License, in paragraphs (b), (c), and (d)

minor access roads, and other similar structures. These requests require consultation with the appropriate state and federal agencies and stakeholders and ultimately can be permitted by Alabama Power after its review is complete. Paragraph (c) permits are reported to FERC on an annual basis. Uses covered in Paragraph (d) involve the conveyance of fee title, easements or right-of-ways, and leases, for activities such as the construction of new roads and bridges, sewer lines that discharge into Project waters, marinas, and other similar structures. These requests also require review by Alabama Power and consultation with the appropriate local, state, and federal agencies and stakeholders and also must be submitted to FERC for review and approval. Alabama Power generally considers all activities in paragraphs (c) and (d) and those activities not specifically defined in the Use and Occupancy article, as Non-Residential permits.

Whether the non-project use is approved under the delegated authority described in the Use and Occupancy article or through formal FERC approval, Alabama Power is responsible for ensuring that the use is consistent with the purposes of protecting or enhancing the scenic, recreational, and other environmental values of the Project. Alabama Power has a continuing responsibility under the license articles to supervise and control the use and occupancies for which it seeks or grants permission and to ensure compliance with the permits and instruments of conveyance that are executed.

In addition to these federally mandated review processes, the shoreline land classifications outlined in Section 4.1 will be considered prior to permitting a requested activity, to ensure that the requested land use can be permitted within the description of the classification. For example, permits requested on shorelines designated as Sensitive Resources will automatically trigger a review by EA who will decide if the proposed activity will significantly affect these sensitive resources; therefore, certain activities may be restricted or prohibited on some properties so designated.

5.1.1 PERMITTING GUIDELINES

Alabama Power has developed the "General Guidelines for Residential Shoreline Permitting and Permit Terms and Conditions" (guidelines) (Appendix E) for various types of activities. These guidelines are considered general, since each reservoir and lot is unique, and permitting policies may need to be adjusted periodically for various situations. As guidelines change (see Section

8.0), the most current guidelines will be attached to the SMP as it is updated over the term of the new license.

Alabama Power monitors new applications (and existing permits) through its GIS and other software systems. This information is used during regular surveillance activities to assess compliance with the terms and conditions of the applicable permit. Alabama Power uses the GPS coordinates of new permit applications to analyze the exact location of the proposed activity and identify any permit stipulations that may be required as a result of the associated land classification.

Alabama Power does not approve the design, engineering, etc. of structures within the Project, but instead approves the types, sizes, locations, and uses. The ownership, construction, operation, and maintenance of any permitted facility are the responsibility of the applicant, who is subject to and solely responsible for complying with all applicable federal, state, and local laws and regulations. The applicant is responsible for all expenses related to obtaining any necessary federal, state, local permits or approvals.

Permit approval and acceptance by the applicant releases Alabama Power, its officers, agents and employees from any and all causes of action, suits at law or equity, or claims or demands, or from any liability of any nature whatsoever for or on account of any damages to persons or property, including the permitted facility, arising out of the ownership, construction, operation or maintenance by the permittee of the permitted facilities.

5.1.1.1 RESIDENTIAL PERMITTING

A shoreline property owner generally initiates the permit process by contacting Alabama Power to request information about how to obtain a "Non-Transferable Lakeshore Use Permit" (permit). During this initial contact, an Alabama Power Shoreline Management Representative explains the general permitting process and reviews the guidelines with the applicant. These guidelines do not attempt to address every specific situation that may exist on Alabama Power reservoirs but are provided as a general guide to assist property owners and their contractors with development and construction actions. Recognizing that site-specific circumstances may warrant special

consideration, Alabama Power may make exceptions and modify these guidelines at its discretion.

Following the initial contact, an appointment usually is made for an Alabama Power Shoreline Management Representative to visit the site of the proposed activity with the property owner. At this site meeting, the Alabama Power Shoreline Management Representative requests drawings of the proposed activity or facility and inspects the shoreline. After the Alabama Power Shoreline Management Representative reviews the applicable guidelines with the property owner, the property owner completes the "Request for Lakeshore Use Permit," provides a copy of the property's deed or lease, a signed copy of the guidelines and any other applicable information to Alabama Power for review. The Alabama Power Shoreline Management Representative records the GPS coordinates for the location.

The property owner submits a complete application with all supporting documentation to Alabama Power's Shoreline Management Representative for review⁸. Next, when applicable, the application is reviewed by EA to determine if the proposed project meets the PGP Conditions. If the application meets the PGP parameters, the activity will be authorized by EA according to the applicable PGP(s) in the form of an approval letter⁹ to the applicant and a copy of the letter will be provided to the Alabama Power Shoreline Management Representative for inclusion in the permit file. A copy of all permits issued in accordance with the USACE PGPS are housed in Alabama Power's EA department and are available to the USACE upon request. Upon approval of the permit, the permittee is required to complete all facility construction within 1 year. If construction is not completed within the time allotted, the permit will become null and void unless the property owner obtains an extension of time from Alabama Power.

If the permit application is not approved or is found insufficient, Alabama Power's Shoreline Management Representative will explain the deficiencies to the property owner. Insufficient applications generally require an additional site inspection to review and discuss possible

⁸ If the proposed activity lies within a Sensitive Resource area, the procedures outlined in Section 4.2 apply.

⁹ Approval letters are valid for a period of one year from issuance; if construction requiring both an approval letter and a permit is not completed within the one year timeframe, the property owner must obtain an extension of time from Alabama Power on both the letter and the permit.

adjustments necessary to obtain approval. Alabama Power's Shoreline Management Representative makes final permit decisions.

5.1.1.2 LEGACY PERMITTING

In an effort to resolve residential structures within the Project boundary that predate Alabama Power's current shoreline permitting program and do not conform to the guidelines, Alabama Power developed its Legacy Permitting process. The guidance and resolution options contained within the guidelines and are intended for use in permitting and retrofitting (where appropriate) certain qualifying, existing noncompliant structures constructed and/or placed either wholly or partially within the FERC Project boundary and Alabama Power's corresponding property, or easement.

A Legacy Structure has generally not been previously permitted by Alabama Power and may not meet all criteria under the guidelines due to the configuration of the structure and its location within or over Alabama Power's property or easement. Depending on the nature of the structure, the owner may be issued either a "Non-Transferable Lakeshore Use Permit" (for most types of shoreline activities such as shoreline stabilization and pier construction) or a "Conditional Legacy Lakeshore Use Permit-Enclosed" and "Recreational Site Agreement" (RSA), (which are issued together to permit enclosed structures,) which have more stringent requirements for the permittee.

Alabama Power has initiated the Legacy Structure permit program as a way to transition existing, non-compliant structures into the permitting and compliance program and to ensure Alabama Power's property rights are protected. However, this program is limited to the life of the Legacy Structure as it exists when the applicable permit is issued. Should a Legacy Structure be destroyed or need substantial repair and the Legacy Structure owner wishes to replace the structure, then any proposed replacement structure must be permitted by Alabama Power prior to construction and meet the requirements for new structures as detailed in the current guidelines. Prior to issuance of a Legacy Permit, structure owners may be required to modify their structure in order to allow Alabama Power full use of its property rights.

5.1.1.3 NON-RESIDENTIAL PERMITS (NRPs)

Non-Residential Permit Applications corresponding to the appropriate paragraphs in the Use and Occupancy article are initiated through the local Alabama Power Shoreline Management Representative. Alabama Power generally conducts an on-site meeting with the applicant to discuss the guidelines and permitting process. The process to apply for and obtain a permit from Alabama Power for certain uses of the lands associated with each hydroelectric Project, including lake shorelines, consists of three phases:

- **PHASE 1 (INITIAL REVIEW)** – The period of time from an Applicant's receipt of the NRP Application Phase 1 Information Checklist (usually distributed at, or soon after, the initial onsite meeting) until Alabama Power determines the Application is complete and ready for stakeholder consultation.
- **PHASE 2 (AGENCY/STAKEHOLDER CONSULTATION)** – The period of time from Alabama Power determining the Phase 1 Information is complete until Alabama Power EA determines agency/stakeholder consultation is complete. Upon completion of Phase 2, the Application is ready for filing for FERC authorization or issuance of a conveyance.
- **PHASE 3 (FERC REVIEW)** – The period of time from Alabama Power's filing of the Application with FERC until FERC issues its approval.

Alabama Power places NRPs into three groups: Non-Residential, Multiple Single-Family Type Dwellings, and Easements. Non-Residential permits cover marinas, parks, overnight campgrounds and other similar facilities. Multi-Family permits are used for, condominiums, planned residential facilities, long-term campgrounds, etc. Easement requests are often used for utility and road crossings as allowed for in Paragraphs (c) and (d) of the Use and Occupancy Article. Alabama Power's guidelines for Non-Residential facilities and Multiple Single-Family Type Dwellings are provided in Appendix G.

During the relicensing process, Alabama Power agreed to consult with the Lake Martin Home Owners and Boat Owners Group and Lake Martin Resource Association prior to permitting any bridges through the NRP process.

5.1.2 PERMIT ENFORCEMENT

Alabama Power closely monitors activities along the shoreline to ensure that they are permitted and are being performed in accordance with the conditions outlined in the applicable permit. Alabama Power's surveillance program monitors each development on a monthly basis. Unauthorized or unpermitted activities within the Project boundary are treated as encroachments or violations. Alabama Power works with the responsible property owner to bring the activity into compliance with its permit. This may involve modification or removal of the structure(s) and restoration of disturbed shoreline at the owner's expense, permitting after completion of corrective actions, remediation, mitigation, litigation, or any combination of these. When unauthorized work is discovered, Alabama Power may seek a stop work order, which can result in unwanted construction delays and additional expense for the owner.

Permit tags are issued with each approved permit. These tags aid in the monitoring and surveillance of the reservoirs. Permit tags are posted on the permitted facility or on the land areas covered by the permit so that they can be visually checked with ease from the water.

The assistance of reservoir stakeholders in shoreline surveillance should not be overlooked. Stakeholders are encouraged to report possible permitting violations by calling the local Alabama Power Shoreline Management office or by calling 1-800-LAKES11 and following the prompts for the appropriate reservoir.

5.1.3 PERMIT AND RSA TRANSFERABILITY

A permit is nontransferable by the permittee. When a property is sold or ownership is transferred, the new owner must contact Alabama Power to receive a new permit issued in their name. Alabama Power is available to consult with permittees prior to the sale or transfer of property to determine whether the permitted facilities are in compliance with Alabama Power permitting guidelines.

RSAs are recorded in the local courthouse and "run with the land," and are therefore binding on whomever the current owner of the property is for as long as the subject structure exists.

5.1.4 PERMIT REVOCATION

If a permittee fails to comply with any of the conditions of a permit, or with any additional conditions imposed by Alabama Power, or any federal, state or local agency, the permittee shall be required to take appropriate action to correct the violation. If the violation is not corrected within 60 days after written notification, Alabama Power may cancel the permit and require the removal of any facilities that were formerly permitted. Alabama Power may revoke a permit whenever it determines that the public interest necessitates such revocation or when it determines that the permittee has failed to comply with the conditions of the permit. The revocation notice, mailed by registered or certified letter, shall specify the reasons for such action. Alabama Power may summarily revoke a permit in emergency circumstances. Alabama Power will consider extensions of the noted time frames on a case-by-case basis.

5.1.5 DILAPIDATED, ABANDONED AND UNPERMITTED STRUCTURES

Because the Project reservoirs have developed at different rates due to factors such as locality, population density, and age of development, the design and condition of structures on the reservoirs varies. Several structures do not meet current permit requirements, and some structures are in disrepair. Unpermitted structures are discussed in Section 5.2.

A dilapidated structure is one that is anchored or otherwise affixed to a piece of property and can no longer be considered serviceable due to its poor state of repair. Several structures on Alabama Power's reservoirs are considered dilapidated because of inadequate flotation, or failing structural integrity, or both. Abandoned structures are free floating and not associated with any particular property.

Through the SCP, Alabama Power has established a program to address dilapidated and abandoned structures. Alabama Power removes abandoned structures from the reservoir in coordination with Renew Our Rivers and the Alabama Law Enforcement Agency - Marine Patrol. In the case of a dilapidated structure, a notice is issued to the property owner, asking the owner to contact Alabama Power. Alabama Power explains the issue and requests cooperative action from the owner to repair or remove the dilapidated structure. Alabama Power may pursue

removal of these structures when it receives complaints and it deems removal appropriate or when the Alabama Law Enforcement Agency - Marine Patrol determines a safety hazard exists.

5.2 STRUCTURE IDENTIFICATION, ASSESSMENT AND RESOLUTION

In 2009, Alabama Power began identifying all existing permitted structures and unpermitted legacy structures within the boundaries of its Projects. Each structure is being assessed based on physical attributes, legal status, permitting status and the Project Purpose of the occupied lands. Alabama Power is actively working with unpermitted legacy structure owners and other stakeholders to reach resolutions for non-conforming structures so that they can be brought within Alabama Power's Shoreline Permitting program. This process, as it pertains to Martin and as required by Article 412, is discussed in Appendix F.

6.0 BEST MANAGEMENT PRACTICES AND EROSION AND SEDIMENTATION CONTROL

6.1 BEST MANAGEMENT PRACTICES

Best management practices are on-site actions implemented by an individual or group to lessen the potential direct or indirect effects of the use of a particular resource. For example, if a property owner chooses to cut vegetation from his or her shoreline property to improve access or to improve the viewshed, the property owner may choose to clear selectively, replant low-lying vegetation that will help maintain the stability of the bank, or both. Selective clearing and replanting would be considered to be BMPs because they are on-site actions that would lessen the potential effects of clearing vegetation. Although the use of BMPs is not required by regulations, regulatory agencies throughout Alabama and the country actively promote the use of BMPs on shoreline projects to reduce potential adverse effects and assist in the conservation and protection of valuable shoreline resources.

Alabama Power, with assistance from relicensing stakeholders and other interested parties, supports public education efforts to encourage the adoption of shoreline BMPs as well as any other BMPs promoted by state and regulatory authorities. In addition, Alabama Power is committed to implementing applicable BMPs on Alabama Power fee simple owned lands classified as Recreation and Natural/Undeveloped. Alabama Power recommends that property owners adopt shoreline BMPs to maintain and preserve qualities associated with naturally vegetated shorelines, including water quality protection, shoreline stabilization, aesthetics, and wildlife habitat.

In addition to the information on the Alabama Power web site, Alabama Power developed an illustrated brochure entitled *Shoreline Management Practices* (Appendix H that discusses general and historical information about each development and its reservoir. The *Shoreline Management Practices* brochure includes sections explaining BMPs (such as the proper use of herbicides), recommendations for implementing these practices, and diagrams that educate prospective permittees. Alabama Power's *Shorelines* publication also periodically features educational information regarding erosion control and BMPs. Information regarding BMP's can be found at: <https://apcshorelines.com/shoreline-management/>.

6.1.1 BUFFERS AND VEGETATION MANAGEMENT

Vegetated shorelines are an important component of a healthy reservoir ecosystem. Naturally vegetated shorelines, including wetlands, can act as natural filters, facilitating the absorption and processing of runoff pollutants. This filtering ultimately reduces the amount of potentially harmful contaminants that enter a particular reservoir and contribute to water quality degradation. In addition to filtering potentially harmful pollutants, shorelines vegetated with native species also work to preserve the physical integrity of the shoreline, preventing excessive erosion. The root systems of naturally vegetated shorelines provide a structure that helps to maintain shoreline integrity and reduce excessive erosion that can lower water quality and in some cases adversely affect aquatic habitat. Naturally vegetated shorelines also improve the aesthetic integrity of the reservoir as well as the amount of habitat available to aquatic and terrestrial species.

Alabama Power recommends that property owners adopt the following shoreline BMPs to maintain and preserve those qualities associated with naturally vegetated shorelines, including water quality protection, shoreline stabilization, aesthetics, and wildlife habitat:

1. Plant native trees, shrubs, and flowers for landscaping and gardens in order to reduce watering as well as chemical and pesticide use. Reference information can be found in Appendix H.
2. Preserve or establish a naturally managed vegetative filter strip along the shoreline to keep clearing of native trees and vegetation to a minimum. Alabama Power recommends a buffer set back of at least 15 feet measured horizontally from the full pool elevation.
3. Plant a low maintenance, slow growing grass that is recommended for your soil conditions and climate. Reference information can be found in Appendix H.
4. Maintain the grass as high as possible in order to shade out weeds and improve rooting so less fertilizing and watering are required.
5. Avoid dumping leaves or yard debris on or near the shoreline.

6.1.2 WATER QUALITY

Water quality is an important indicator of the overall health of the reservoir. Water quality not only affects aquatic and terrestrial wildlife, but also the health and well-being of individuals and communities that surround the reservoir.

Water quality can be impaired in several ways, one of which is through the introduction of pollutants from non-point sources. Non-point source pollution is introduced into the reservoir by water runoff and is impacted by agriculture, forestry, construction, and various other land use activities. As water runs off surrounding lands, it picks up sediment, bacteria, oil, grease, and other various pollutants as well as nutrients such as nitrogen and phosphorus. Excessive levels of non-point source pollution can overwhelm a reservoir's natural filtering abilities and can lead to a decrease in water quality levels. For a complete technical reference concerning water quality on Lake Martin, please see the water quality reports on the Alabama Department of Environmental Management's website.

Alabama Power recommends that property owners adopt the following BMPs to preserve and improve the water quality of the Project's reservoir:

1. Use permeable paving materials and reduce the amount of impervious surfaces, particularly driveways, sidewalks, walkways, and parking areas.
2. Avoid or minimize the use of pesticides, insecticides, and herbicides whenever possible.
3. Dispose of vehicle fluids, paints, or household chemicals as indicated on their respective labels and do not deposit these products into storm drains, project waters, or onto the ground.
4. Use soap sparingly when washing your car and wash your car on a grassy area so the ground can filter the water naturally. Use a hose nozzle with a trigger to save water and pour your bucket of used soapy water down the sink and not in the street.
5. Avoid applying any fertilizer. Apply fertilizers and pesticides according to the label and never just before a precipitation event. Fertilizer use can also be avoided by using native vegetation in a landscape.
6. Maintain septic tanks and drain fields according to the guidelines and/or regulations established by the appropriate regulatory authority.
7. Discourage livestock from entering project waters or tributaries.
8. Create and maintain a rain garden in the landscape to naturally filter runoff.

6.1.3 PROPERTY DEVELOPMENT AND MANAGEMENT

Alabama Power's Martin Project includes approximately 880 miles of shoreline. Private residential property occupies a considerable amount of that shoreline and has a significant effect on the shoreline as well as the reservoir itself. Individually, one property does not normally have a large effect upon the

shoreline or the reservoir. Cumulatively however, residential activities can have a pronounced effect on reservoirs and their shorelines.

Alabama Power's existing permitting program includes guidelines to follow when considering a shoreline use permit request. These guidelines are specifically designed to minimize impacts to shoreline resources associated with property development. In addition to the existing permit guidelines, Alabama Power recommends that property owners adopt the following shoreline BMPs to help conserve and protect valuable shoreline resources.

1. Deposit excavated materials in an upland area and properly secure them to prevent them from entering the waterway, adjacent wetlands, or bottomland hardwoods through erosion and sedimentation. (Required when dredging)
2. Place riprap along the base of existing¹⁰ seawalls.¹¹
3. Maintain natural drainage to the maximum extent possible and do not direct concentrated runoff directly into the reservoir.
4. Divert rain gutters/drain pipes and other sources of household runoff, including driveways, to unpaved areas where water can soak into the ground and be naturally filtered before reaching the reservoir.
5. Dispose of yard debris and other biological waste in a compost pile located at least 15 feet away from the shoreline.
6. Avoid excessive watering of lawns and water either in the morning and/or in evening.
7. Plant native species to reduce watering.

In addition to the preceding shoreline BMPs, Alabama Power recommends that all activities on lands adjacent to each reservoir follow existing state BMPs (e.g., Alabama's Best Management Practices for Forestry, Alabama Clean Water Partnership BMPs, Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas). For a list of references regarding these BMPs, as well as additional sources of information, see Appendix H.

Table 6-1 presents the entire list of BMPs in order to facilitate understanding of where BMPs will be required according to the land classification. Information is also provided to assist shoreline property

¹⁰ Placing rip-rap along existing seawalls is considered a voluntary BMP. Placing rip-rap at the base of seawalls is required for new and replacement seawalls, as well as when maintenance is conducted on existing seawalls.

¹¹ Prior to installing riprap, a property owner is required to obtain a permit or modification to a permit as described in "Shoreline Permitting" (see Section 5.1 of this document).

owners on the permit requirements of implementing certain BMPs. Although applicable BMPs are required on Alabama Power owned Project lands classified as Recreation and Natural/Undeveloped Lands, not all BMPs will be practicable on specific sites. BMPs will be required at these sites on a case by case basis.

TABLE 6-1 SHORELINE BMPs BY WHETHER THE BMP WILL BE REQUIRED OR VOLUNTARY ACCORDING TO THE SMP LAND CLASSIFICATION/SENSITIVE RESOURCE

(Project Operations (POP), Recreation (REC), Quasi-Public Lands (QPL), Commercial Recreation (COM), Natural/Undeveloped (N/UD), 30-Foot Control Strip (CST), and Sensitive Resource Designation (SEN))

SHORELINE BMP	POP	REC	QPL	COM	N/UD	CST	SEN	PERMIT REQUIRED
Plant native trees, shrubs, and flowers for landscaping and in gardens to reduce the need for watering and use of fertilizers and pesticides.	N/A	R	V	V	N/A	V	V	No
Preserve or establish a naturally managed vegetative filter strip along the shoreline to minimize clearing of native trees and vegetation. Alabama Power recommends a buffer set back of at least 15 feet measured horizontally from the top of the pool elevation.	N/A	R	V*	V*	R	V*	V*	*
Plant a low-maintenance, slow-growing grass that is recommended for your soil conditions and climate.	N/A	R	V	V	N/A	V	V	No
Maintain the grass as high as possible to shade out weeds and improve rooting so that less fertilizing and watering are required.	N/A	R	V	V	N/A	V	V	No
Avoid dumping leaves or yard debris on or near the shoreline.	N/A	N/A	V	V	N/A	V	V	No
Use permeable paving materials and reduce the area of impervious surface, particularly driveways, sidewalks, walkways, and parking areas.	N/A	R	V	V	N/A	V	V	No
Avoid or minimize the use of pesticides, insecticides, and herbicides whenever possible.	N/A	R	V	V	N/A	V	V	No
Dispose of vehicle fluids, paints, and household chemicals as indicated on their respective labels and do not deposit these products into storm drains, Project waters, or onto the ground.	N/A	N/A	V	V	N/A	V	V	No
Use soap sparingly when washing your car and wash your car on a grassy area so the ground can filter the water naturally. Use a hose nozzle with a trigger to save water and pour your bucket of used soapy water down the sink, not onto the street.	N/A	N/A	V	V	N/A	V	V	No
Avoid applying any fertilizer. If you must apply fertilizers or pesticides, follow the directions on the label and never apply chemicals just before a rain storm. Use native vegetation in the landscape to avoid the need for fertilizer.	N/A	R	V	V	N/A	V	V	No

6-6

SHORELINE BMP	POP	REC	QPL	COM	N/UD	CST	SEN	PERMIT REQUIRED
Maintain septic tanks and drain fields according to the guidelines and/or regulations established by the appropriate regulatory authority.	N/A	R	V	V	N/A	V	V	No
Discourage livestock from entering Project waters or tributaries.	N/A	R	V	V	R	V	V	No
Create and maintain a rain garden in the landscape to filter runoff naturally.	N/A	N/A	V**	V**	N/A	V**	V**	**
Deposit excavated materials in an upland area and contain them properly to prevent them from entering the waterway, adjacent wetlands, or bottomland hardwoods through erosion and sedimentation.	N/A	R	V***	V***	R	V***	V***	**
Place riprap along the base of existing seawalls.	N/A	N/A	V	V	N/A	V	V	Yes
Place riprap along the base of new seawalls or when conducting maintenance of existing seawalls.	N/A	N/A	R	R	N/A	R	R	Yes
Maintain natural drainage to the maximum extent possible and do not direct concentrated runoff directly into the reservoir.	N/A	R	V	V	R	V	V	No
Divert rain gutters/drain pipes and other sources of household runoff, including driveways, to unpaved areas where water can soak into the ground and be filtered naturally before reaching the reservoir.	N/A	N/A	V	V	N/A	V	V	No
Place yard debris and other compost materials above the flood elevation and away from the shoreline.	N/A	N/A	V	V	N/A	V	V	No
Avoid excessive watering of lawns, water either in the morning and/or the evening.	N/A	R	V	V	N/A	V	V	No

* A naturally managed vegetative buffer is recommended on all properties within the Project. The implementation of a naturally managed vegetative buffer will be required as a condition of all new residential shoreline use permits issued on lands owned in fee simple title by Alabama Power.

** Excavation within the Project boundary requires a shoreline use permit.

*** Materials excavated from within the Project boundary must be disposed of as required in the respective residential shoreline use permit.

6-7

6.2 EROSION AND SEDIMENT CONTROL

Alabama Power's permitting process and BMPs include numerous provisions for controlling soil erosion and sedimentation, including bio-engineering techniques such as planting willow and wetland species.

Bioengineering techniques involving marsh creation and vegetative bank stabilization (soil bioengineering) may be effective at sites with limited exposure to strong currents or wind-generated waves. In cases with increased erosional forces (e.g., strong currents, wind generated waves), an integrated approach that employs structural systems (e.g., seawalls) in combination with soil bioengineering techniques may be more appropriate.

Basic principles of soil bioengineering include the following (USDA-NRCS, 1992):

- fitting the soil bioengineering system to the site;
- evaluating topography and exposure (e.g., note the degree of slope, presence of moisture);
- characterizing geology and soils (e.g., determine soil depth and type);
- studying the hydrology (e.g., calculate peak flows in the Project area);
- retaining existing vegetation whenever possible;
- limiting removal of vegetation;
- stockpiling and protecting topsoil;
- protecting areas exposed during construction; and
- diverting, draining, or storing excess water

Some appropriate bioengineering practices include installing coconut fiber rolls or live fascines, live staking, restoring or creating marsh, and preserving or creating vegetative buffers. Some appropriate integrated practices include bank shaping and planting; joint planting; and installing live cribwalls, vegetated gabions, vegetated reinforced soil slopes, or vegetated geogrids.

7.0 SMP REVIEW PROCESS

In order for the SMP to remain relevant in the coming years, Alabama Power intends to review this document every 6 years with continued input from interested parties. Information related to Sensitive Resources (e.g., wetlands, threatened and endangered species and cultural resource locations) will be updated continuously as new information becomes available (e.g. as new federally listed species and/or federally designated critical habitat are designated). Due to the pace at which conditions around the reservoir will change over the foreseeable future, the 6-year time frame allows for Alabama Power to assess new issues that may arise as a result of development. A shorter time frame would preclude any meaningful analysis of cumulative effects; however, Alabama Power is always willing to listen to concerned stakeholders if unforeseeable circumstances warrant an interim review of particular sections of the SMP. This review process will provide the means for the permitting program to change, if necessary, or for additional BMPs to be adopted or replaced as their effectiveness is tested. The review process will be advertised in various media formats (e.g., website, *Shorelines*, contact with homeowner associations) 1 month before it begins.

Every six years, Alabama Power will issue a report through various media outlets (e.g., the Alabama Power shoreline management web site, the *Shorelines* newsletter) with the number of permits it has processed on each shoreline classification type on each reservoir. Any request for this information in the intervening time will be considered on a case-by-case basis.

Alabama Power proposes to host annual public education workshops to address SMP questions, especially with regard to permitting, during the 6-year review process. In addition, Alabama Power will meet with consulting agencies by December 31 of the fifth year of the 6-year cycle to determine the progress of implementing the SMP and any suggested modifications of the SMP. The SMP process will culminate in a filing by December 31 of each 6-year cycle that describes the consultation and any recommended modifications and how Alabama Power addressed any proposed modifications of the SMP.

8.0 LITERATURE CITED

USDA-NRCS (United States Department of Agriculture, Natural Resource Conservation Service). 1992. Engineering Field Handbook, Chapter 18 Soil Bioengineering for Upland Slope Protection and Erosion Reduction.