



DECEMBER 2023

North Texas Municipal Water District

BOIS D'ARC LAKE

SHORELINE
MANAGEMENT PLAN



*A North Texas Municipal Water District Reservoir
Fannin County, Texas*

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Acronyms

ATV	all-terrain vehicle
BMP	best management practice
EPA	U.S. Environmental Protection Agency
FM	Farm-to-Market
GIS	geographic information system
MGO	My Government Online
MSL	mean sea level
NTMWD	North Texas Municipal Water District
PWC	personal watercraft
SMP	Shoreline Management Plan
SMPAC	Shoreline Management Plan Advisory Committee
TCEQ	Texas Commission on Environmental Quality
TPWD	Texas Parks and Wildlife Department
USACE	U.S. Army Corps of Engineers
UTV	utility terrain vehicle
WALROS	Water and Land Recreation Opportunity Spectrum

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Section 1

Introduction

1.1 Shoreline Management Plan Purpose

The Shoreline Management Plan (SMP) for Bois d’Arc Lake (the Lake) establishes guidelines for the protection and use of the Lake’s shoreline. The SMP is intended to guide the preservation of the shoreline’s desirable environmental and aesthetic characteristics to ensure water quality standards in the Lake are maintained, while allowing for public and private shoreline uses. This plan provides standards and procedures for the review, approval, and administration of private shoreline uses on North Texas Municipal Water District (NTMWD) property adjacent to Bois d’Arc Lake. Although most potential shoreline uses are described in this SMP, some activities—including the development and operation of public access areas such as public boat ramps, commercial activities, and marinas—will be evaluated on a case-by-case basis and may require specialized review processes and authorizations that are beyond the scope of the SMP. The SMP complements the Bois d’Arc Lake Operations Plan, which addresses operational elements such as dam safety and dam operations.

1.2 SMP Goal

It is the goal of NTMWD to protect and manage the shoreline of Bois d’Arc Lake to promote the safe and healthy use of the shoreline, while maintaining environmental safeguards to protect water quality within the Lake as a public water supply source for NTMWD customers.

1.3 Authority

NTMWD is a conservation and reclamation district and political subdivision of the State of Texas, created and functioning under Article XVI, Section 59 of the Texas Constitution, pursuant to Chapter 62, Acts of 1951, 52nd Legislature of Texas, Regular Session, as amended (the Act). NTMWD was created to provide water supplies for beneficial purposes of use, including but not limited to municipal, agricultural, and industrial uses; and for the treatment, processing, and transportation of water to its customers in North Central Texas within its service area.

1.4 History and Background

Bois d’Arc Lake will be managed by NTMWD and is the first major reservoir to be permitted and constructed in the State of Texas in approximately 30 years. This new reservoir, created by impounding Bois d’Arc Creek, will provide a critical source of water to help meet the growing water needs for residents and businesses in Fannin County and the North Central Texas communities served by NTMWD. The approximately 16,641-acre lake is located northeast of the city of Bonham in central Fannin County. The Lake’s name honors local history and recognizes the Bois d’Arc (pronounced bō-ˌdä(r)k) tree (also known as Osage Orange [*Maclura pomifera*]) as a distinctive symbol with special significance for the region. Bois d’Arc Lake will help meet the water needs and demands for the growing NTMWD region. Construction of the reservoir is just one element of the overall project that NTMWD is overseeing. In addition to the reservoir, the

project requires the construction of a dam, pipelines, pump stations, water treatment facilities, roadways, and environmental mitigation to successfully collect, treat, and deliver water to NTMWD customers.

Permitting for the Lake began in 2003, with the final permit approved by the U.S. Army Corps of Engineers (USACE) in February 2018. The Lake is a critical new water supply source that will also deliver economic and recreational benefits to Fannin County. The SMP establishes specific measures to protect the water quality of the Lake and to control activities on NTMWD-owned property that could negatively affect the intended uses and benefits of the Lake. Successful implementation of the goals for the Lake requires the development of management procedures and controls for the long-term protection of this resource.

Construction of the dam began in May 2018 and is expected to be completed in 2021 (**Figure 1-1**). It could take several years to fill the Lake sufficiently to be safely used for recreational purposes. The opening date is unknown at this time because a number of variables, including the weather, will determine how fast the Lake will fill.



Figure 1-1. Constructing the Dam Spillway, June 2019

To prepare for recreational uses, much of the eastern portion of the Lake (east of the new Farm-to-Market [FM] 897 crossing) was cleared of timber and other navigation hazards (**Figure 1-2**), although some hazards remain that could be exposed at low water levels (see Section 2.6 for information on operation during low water levels). Dense stands of timber have been left on the reservoir bottom to the west of the bridge for habitat benefits (**Figure 1-2**).

This SMP was developed in 2019, prior to the completion of the dam and reservoir, to allow NTMWD to proactively prepare for anticipated residential and commercial development and

demand for private shoreline uses. This plan will be reviewed and updated periodically, as described in Section 1.7.



Figure 1-2. Farm-to-Market Road 897 Crossing Future Reservoir (Looking North)

1.5 SMP Development and Public Involvement

The SMP development began with NTMWD identifying a detailed vision for the Lake. NTMWD identified the critical success factors required to effectively implement the plan, which included water quality protection and facilitating the county’s vision for economic and recreational development. The history of the planning and permitting for the Lake was reviewed, along with the Fannin County Comprehensive Plan that established a vision for development expectations for the land surrounding the Lake. Information from other lakes within the region was reviewed and evaluated to identify similarities and differences among the lakes, including comparing the relevant rules and regulations from those lakes. A Shoreline Management Plan Advisory Committee (SMPAC) was created to develop specific shoreline management goals and procedures for the Lake. The SMPAC was comprised of NTMWD staff from different divisions to provide varying perspectives on the development of the SMP. In addition, several Focused Input Teams were convened to obtain input and feedback from participating agencies. These teams included individuals from organizations outside NTMWD, including Fannin County, Texas Parks and Wildlife Department (TPWD), and USACE.

1.6 Fannin County Comprehensive Plan and Zoning

North Central Texas is becoming one of the fastest growing regions in the state. Fannin County officials anticipate that this growth will greatly affect aspects of development in the county, particularly the need for water. Consequently, the Fannin County Commissioners Court endorsed

and encouraged state and federal permitting actions for the Lower Bois d’Arc Creek Reservoir, which was the original proposed name for the Lake during early planning. With support of the county and NTMWD, Texas Local Government Code Chapter 231, Subchapter G was amended to grant Fannin County the authority to apply land use zoning to “the area within 5,000 feet of where the shoreline of the reservoir would be if the reservoir were filled to its storage capacity.”

Fannin County’s Comprehensive Plan for Lower Bois d’Arc Creek Reservoir established a vision for how the private land around the reservoir should develop. The Comprehensive Plan was developed with the help of the Fannin County Zoning Commission and with public input. It provides a guide for development-related decisions related to roads, land uses, and parks. It also guided the development of the Lake Zoning Regulations, which were adopted by Fannin County on October 30, 2018.

Land use remains predominately agricultural, undeveloped, or low-density rural residential. Future growth and development around the reservoir will require the conversion of a large amount of open space and agricultural land into well-planned and orderly developed land uses. The guidelines in the Comprehensive Plan are specific to development around the perimeter of the Lake and are important to protect water quality and the natural beauty of the area, which was a priority for Fannin County stakeholders. The Comprehensive Plan guidelines were incorporated in the development of the zoning ordinance for the area around the perimeter of the Lake (within 5,000 feet).

Development of private land adjacent to the Lake will be regulated by Fannin County in compliance with the adopted zoning ordinance. Development of private structures on NTMWD shorelines, including structures on or over the water, will be subject to approval and authority of NTMWD. NTMWD intends to work cooperatively with Fannin County to ensure that desirable development occurs both on NTMWD lands and on the adjacent private lands. To this end, the SMP and the future land use as described in the Comprehensive Plan are intended to be compatible. For example, where feasible and in the interests of NTMWD, private recreational facilities would be allowed along shorelines identified for such uses and where also adjacent to properties zoned for residential or commercial development.

1.7 SMP Vision and Carrying Capacity

The SMPAC used the Water and Land Recreation Opportunity Spectrum (WALROS) tool developed by the U.S. Bureau of Reclamation (U.S. Bureau of Reclamation 2011) to identify the future context and setting for the Lake based on their understanding of the Fannin County land use planning processes. The overarching goal of WALROS is to provide planners and managers with a framework and procedure for making better decisions in order to conserve a spectrum of high-quality and diverse water and land recreation opportunities within a management area. WALROS improves understanding of the complexity of outdoor recreation management, strengthens sound professional judgment, and enables managers to make more informed and defensible decisions.

There are six WALROS classes representing a spectrum of recreation opportunities: urban, suburban, rural developed, rural natural, semi-primitive, and primitive. Each WALROS class has unique physical, managerial, and social attributes. The consensus of the SMPAC on the WALROS

inventory was that the Lake is expected to fall between the “Rural Developed” and “Rural Natural” categories. The WALROS classification provides targets for recreational uses and boating density that can be used to set carrying capacity targets for the Lake to maintain the vision and goals for the Lake.

Lake boating capacity is the total number of boats that could safely operate on the Lake at one time while providing users with an enjoyable experience. Boating capacity is a function of the useable water surface acres and the boating access opportunities (how people get their boats on the lake). The range of boating density for “Rural Developed” falls between 20 and 50 water surface acres per boat. The SMPAC identified the target boating density for planning purposes for this SMP to be 35 water surface acres per boat.

The next step in establishing the carrying capacity is to determine the total water surface area of the Lake that is usable for general recreational boating activity. As in other boating capacity studies, this is the amount of water surface area where the Lake is 3 feet deep or greater and where there is no standing timber or other obstructions that would make the area unsafe. Because of the large areas of standing timber and the shallow shorelines, there are approximately 6,123 acres of Lake surface area that cannot be used for general recreational boating when the Lake is at the normal conservation pool elevation of 534 feet above mean sea level (MSL). The total water surface area of the Lake is estimated to be approximately 16,641 acres. This means there are approximately 10,518 acres of usable water surface for recreational boating (16,641 total acres minus 6,123 unusable acres equals 10,518 useable acres). Applying the target density of 35 acres per boat, the carrying capacity of Bois d’Arc Lake is approximately 300 boats on the water at one time (10,518 acres divided by 35 acres per boat equals 300.5 boats). This is an average capacity meant to inform planning decisions related to shoreline development. There may be more than 300 boats on the Lake during peak-use periods such as holidays.

1.8 SMP Adoption and Update Process

The SMP and associated maps are adopted by action of the NTMWD Board of Directors (Board). Because the SMP goals, procedures, and shoreline classifications are based on the current vision for development of the Lake, and future conditions may vary, the SMP will be reviewed annually by NTMWD and updated as necessary. At least once every five years, the SMP will undergo a comprehensive review and update. Revisions to the SMP and shoreline classification maps will be approved by action of the NTMWD Board of Directors.

Minor revisions to the SMP include wording changes or clarifications to procedures. Revisions to the agreement templates to reflect changes in the law would be considered minor revisions. A map change from Marina Overlay Zone to Public Access/Commercial Development is considered a minor revision. Minor revisions may be incorporated into the SMP and as approved by the Executive Director or their designee. Other map changes are considered major revisions to the SMP and are adopted following the process outlined below.

Requests to change shoreline classifications, except as noted above, are considered major SMP revisions. No changes will be made to shoreline or water surface classifications except through a Board review process, including changes based on a field review of site-specific conditions. All map change recommendations must include consideration of physical site characteristics, lake carrying capacity status, dock spacing guidelines, and other relevant factors. NTMWD staff will

compile all requests for changes and make recommendations for approval to the Executive Director or their designee. Board approval is required for map changes except as noted under minor revisions.

The SMP annual review includes a compilation of all approved minor revisions, proposed changes to shoreline classifications, a review of carrying capacity status, and any other needed changes based on changes in the Bois D'Arc Lake Operations Plan, water level and fluctuation data, and any other data. The official version of the SMP shall be the most recent Board-adopted version with any subsequent approved minor revisions.

A complete review of the SMP will be conducted at least once every 5 years. The plan may be supplemented more frequently should operations, Lake conditions, or management objectives change significantly. A full update of the SMP would involve a review of all sections, maps, and procedures associated with the SMP against existing lake and shoreline conditions, and any other changed circumstances, including a review of the adopted carrying capacity limits. Recommended updates will include and affirm all currently effective and approved minor revisions since the last Board approval. If no necessary updates or revisions are identified, the Board would affirm the SMP for the next 5-year period.

NTMWD staff will report on the implementation of the shoreline management program on an annual basis. This report will include a review of use patterns (e.g., recreational uses of the Lake, numbers of visitors, shoreline uses, or other data determined to be relevant), shoreline management objectives, amount of shoreline development, number of private individual and community docks, and the number of boat dock slips located at marinas. NTMWD staff will track the carrying capacity status of the Lake by tracking agreements authorizing boat docks and commercial marina approvals to monitor available capacity for additional boat docks. The remaining capacity, in terms of dock slips and marina slips, will be calculated annually. If the capacity limit is reached, NTMWD may deny agreements for new docks and marinas until a full review and update of the SMP is completed under either an annual review cycle or a 5-year update cycle.

Changes in conditions that affect the underlying carrying capacity vision for the Lake may also trigger the need for a formal review and update. The annual review will allow NTMWD to monitor when the Lake is close to reaching its carrying capacity. As the carrying capacity target is approached, NTMWD may choose to review the context and setting for the Lake, which may result in new targets being established.

Section 2

Description of Shoreline

2.1 Project Information

Bois d’Arc Lake is the first new major reservoir in Texas in nearly 30 years. The 16,641-acre lake is located northeast of the City of Bonham, Texas, in Fannin County. The Lake’s name honors local history and recognizes the Bois d’Arc tree (Osage Orange) as a distinct symbol with special significance for the region. Bois d’Arc Lake will help meet the water needs and demands for the growing North Central Texas region.

2.2 Project Statistics

- Location: Fannin County, Texas
- Owner and operator: North Texas Municipal Water District
- Lake surface area at 534 feet MSL: 16,641 acres
- Storage capacity: 367,609 acre-feet
- Supply: Firm yield of 108 million gallons per day*
- Average and maximum depth: 22 and 70 feet, respectively
- Lake elevation: 534 feet MSL (normal conservation pool)
- Environmental mitigation: More than 17,000 acres

** Firm yield is the amount of water that can be supplied to cover water needs even during the driest conditions.*

2.3 County Land Use and Zoning

The goals and guidelines contained within this plan are generally consistent with the Fannin County Comprehensive Plan, future land use map, and Lake Zoning Regulations (see **Section 1.6**). If the county updates these plans and regulations, NTMWD may, at its discretion, review and update this SMP (see **Section 1.8**).

2.4 Boundary Line

The boundary line for Bois d’Arc Lake was established and marked along the 541 feet MSL contour. NTMWD owns all lands below 541 feet MSL in fee simple. This contour corresponds to the 100-year flood elevation and provides for inundated lands to be within NTMWD-owned property. This also means that the boundary line for the Lake is not necessarily a straight line. As owner of the land and water below 541 feet MSL, NTMWD has full control over all activities and facilities that may occur within this area. All activities and facilities that are constructed or occur

on NTMWD-owned property and waters are only authorized in writing through issuance of a Shoreline Lease and Use Agreement or other authorizing document such as a contract.

2.5 Flowage and Flood Easement Land

In addition to lands owned in fee simple, NTMWD has also purchased a Permanent Flowage and Flood Easement across certain lands that may flood periodically. These easements are typically located between the 541 feet MSL contour and the 545 feet MSL contour. This area approximately corresponds to the 500-year floodplain surrounding the lake and could flood during storms or following wet seasons. These areas may also flood during times of normal operations of the Lake. The easement specifically provides that the underlying private property owner shall not construct or maintain any permanent structures, without limitation, including buildings, ditches, channels, dams, dikes, wells, earthen tanks, roads, or utility lines on the easement, nor perform any excavation or filling on the easement. Septic systems, drain fields, or any other type of on-site sewage systems are not allowed on lands covered by flowage easements. Property owners are advised to check flowage easement deeds for the exact rights retained prior to proceeding with any activities in the easement area.

The Permanent Flowage and Flood Easements allow NTMWD to overflow, flood, submerge, store, and impound water on the easement during periods when the lake is above the normal conservation pool level for such time as is necessary. Property owners with these easements on their property continue to have the right to use the land covered by the easements. NTMWD may consider allowing improvements within the Permanent Flowage and Flood Easements in lieu of improvements being located on NTMWD property near the shoreline. Any requests for improvements within the Permanent Flowage and Flood Easement not expressly allowed by the easement must follow the same application process described in Section 6 and all authorized improvements must conform to the standards and specifications described in Section 4.3.1.4 and in **Appendix F**, Section 4. However, NTMWD is not responsible for any loss or damage to the easement property, including any turf, landscaping, structure, or improvement located within the easement. In addition, the flooding and impoundment of water on and over the easement may deposit silt, debris, and trash on the easement. NTMWD is not responsible for any cleanup or removal of any such silt, trash, or debris resulting from any such events or otherwise.

2.6 Water Levels and Fluctuation

The pool elevation of the Lake is projected to fluctuate. The highest elevation limit for the Lake is at approximately the 500-year flood elevation of 545 feet MSL (0.2 percent chance of occurrence). The 100-year flood elevation for the Lake is 541 feet MSL (1 percent chance of occurrence). The normal operating pool elevation for the Lake is 534 feet MSL and it is this shoreline elevation that is defined as the shoreline for planning purposes under this SMP.

The lowest elevation for the Lake is projected to be around 516 MSL (**Figure 2-1**). Most of the time, lake elevations are projected to be between 534 feet MSL and 520 feet MSL. Because of navigational hazards that were not removed during construction, public access boat ramps will generally be closed to restrict Lake access when water levels fall below 525 feet MSL. However, closing and opening the ramps are ultimately at the sole discretion of NTMWD for operational or public safety concerns from local authorities. NTMWD will follow the procedures described in the Lake Operations Plan for restricting lake access when the water elevation drops to a level that is

unsafe for recreational boating activities. Ramps for lake access will be reopened when current and projected lake level conditions are suitable for safe recreational boating activities. Because the topography in the region is gently sloping, small changes in the pool elevation can create large horizontal change in the shoreline, which could also affect access from any particular point along the shoreline (**Figure 2-1**).

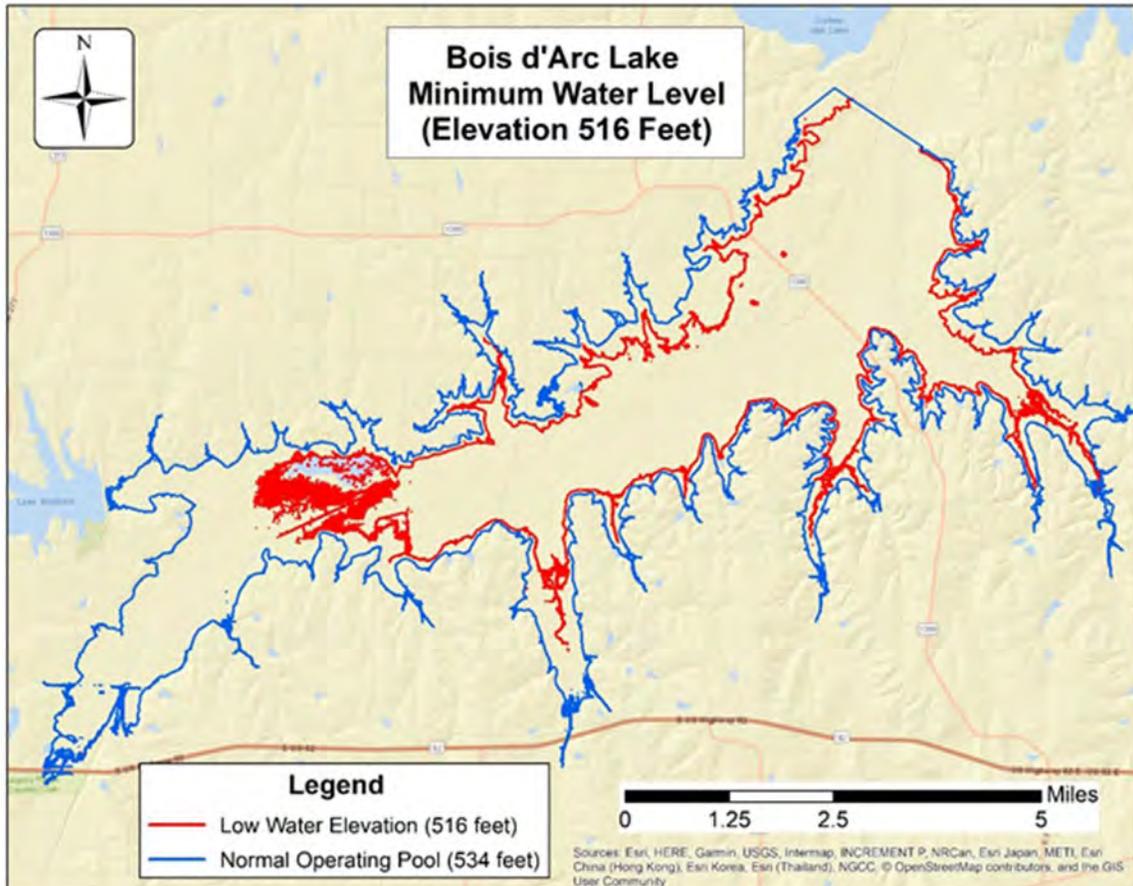


Figure 2-1. Bois d'Arc Lake Normal and Low Water Elevations

NTMWD will not manage lake level elevations solely to maintain boat accessibility to the Lake. Lake operation for water supply and compliance with reservoir permit conditions supersedes any consideration for recreational uses or for private uses of NTMWD lands and waters. Because the Lake is not a “constant level” or “controlled level” lake and is subject to drought or flooding without warning, persons who wish to construct improvements on NTMWD-owned property, including docks, access paths, or other improvements, will be required to accept all risks associated with the hazards of lake level fluctuations. Fluctuations in lake level can result in improvements being unusable during flood or drought conditions, which can extend over months or even years. Fluctuating water levels or extended periods of high or low water may result in the destruction of or damage to improvements and property stored on NTMWD-owned property and flowage easements, such as boats and landscape vegetation.

Persons desiring to construct boat docks should fully understand that their docks will not be useable at some lake elevations. Water levels may be too low or too high for boat access to fixed

docks and fixed pole docks that have a limited vertical range. Only fixed or floating pole docks are allowed at Bois d'Arc Lake (**Appendix B**). Rainfall and water supply demands will cause water level fluctuations and high or low water conditions may occur for extended periods of time. Therefore, persons wishing to construct a boat dock should use prudent judgment and thoroughly research the pros and cons of dock ownership before investing in boat dock construction. Because of these water level fluctuations, differences in shoreline depths, and the limited vertical movement of the allowable dock types, boat docks on Bois d'Arc Lake will likely have limited accessibility for boats. In shallow Lake areas, a dock will become unusable more quickly as the Lake water level drops, resulting in less time that the dock is accessible to boats.

NTMWD has obtained Permanent Flowage and Flood easements over lands that fall between 541 feet MSL and 545 feet MSL. These lands may be flooded at times of high water. NTMWD is not responsible for any loss or damage to any turf, landscaping, structure, or improvement located within these easements. In addition, the flooding and impoundment of water on and over the easement may deposit silt, debris, and trash on the easement. NTMWD is not responsible for any cleanup or removal of any such silt, trash, or debris resulting from any such events or otherwise.

2.7 Water Quality

The primary purpose of Bois d'Arc Lake is to ensure there is a reliable supply of clean potable water for the residents, businesses, and industries within the region. This can only be accomplished by implementing guidelines and management practices that protect and enhance water quality within the Lake. This SMP is intended to ensure that the activities and facilities that are approved or authorized on and around the shoreline of the Lake are managed in a sustainable manner. The goals, procedures, and guidelines contained within the SMP are designed to protect and enhance water quality within the Lake and ensure an adequate supply of safe and clean drinking water is available for the foreseeable future. Maintenance of water quality is also important to support water-based recreational and aesthetic uses at the Lake.

All activities approved or authorized around, over, and near the Lake must implement best management practices (BMPs) to control stormwater runoff, erosion, and sedimentation, and prevent contaminants and pollutants from entering the water (see **Appendices F, G, and H**). On-site sewage facilities of any sort are prohibited on NTMWD lands and easements.

Section 3

Shoreline Classifications

3.1 Overview of Shoreline Classifications

The shoreline of Bois d’Arc Lake is approximately 172 miles long and is allocated into five shoreline classifications that extend from the normal conservation pool elevation (534 feet MSL) waterward for over-water facilities, and to the NTMWD boundary line (541 feet MSL) for land-based uses. A map of the shoreline classifications is available for viewing on the NTMWD website and at the Lake Operations Center. Reduced or smaller-scale maps may be developed for public dissemination (see **Appendix A**); however, small-scale print maps are for general reference only and may not be used in the review or approval of shoreline uses and activities. The only official authoritative reference for shoreline classification is the scalable, georeferenced map maintained by NTMWD. No changes will be made to shoreline classifications except through the formal SMP update process as described in Section 1.8. **Figure 3-1** shows the shoreline classifications around the Lake.

3.2 Shoreline Classification Definitions

The shoreline of Bois d’Arc Lake is allocated into five shoreline classifications and one overlay zone. Each of the classifications is defined in the following sections.

3.2.1 Restricted

These shoreline areas are designated to prohibit public access for health, safety, or security reasons or as may be prohibited by local, state, or federal law. These include hazardous areas near dams, spillways, work areas, water intake structures, and areas reserved for Lake management. No Shoreline Lease and Use Agreements will be issued in these areas.

Approximately 3.7 miles of the shoreline, or about 2 percent, is allocated as Restricted. These areas are shown in blue on the SMP classification maps (see **Appendix A**).

3.2.2 Environmentally Sensitive

These shoreline areas are designated primarily to protect or restore aesthetic, fish and wildlife, cultural, or other environmental resources such as littoral wetlands. These areas may have access restrictions. Signs and/or buoys will clearly identify where access is prohibited. No Shoreline Lease and Use Agreements will be issued in these areas.

Approximately 30.2 miles of shoreline are allocated as Environmentally Sensitive, representing about 18 percent of the shoreline. These areas are shown in black on the SMP classification maps (see **Appendix A**).

3.2.3 Limited Development

These shoreline areas are designated for physical protection reasons, such as shallow water, heavy siltation, rapid dewatering, erosion, or exposure to high wind, wave, and current action. Boating is permitted along the shoreline provided aesthetic, environmental, and natural

resources and values are not damaged or destroyed. Private individual and/or private community boat docks shall not be located in these areas. However, small overwater structures that do not provide for boat docking, such as fishing or patio piers, may be allowed (maximum size: 200 square feet). Modification of landform or vegetation by private individuals may be authorized at the discretion of NTMWD after due consideration of the effects of such action on the environmental and physical characteristics of the area. All land-based facilities included in any agreement must be set back a minimum of 50 feet from the 534 feet MSL contour.

There are approximately 64.9 miles or about 38 percent of the shoreline allocated as Limited Development. These areas are shown in orange on the SMP classification maps (see **Appendix A**).

3.2.4 Dock Capable

These shoreline areas are designated to accommodate certain private activities and facilities, such as vegetation modification and/or privately owned docking facilities (including both private individual and private community docks). Uses and activities will only be allowed following the issuance of a Shoreline Lease and Use Agreement or other authorizing document, such as a contract, in accordance with this SMP. All land-based facilities included in any agreement must be set back a minimum of 50 feet from the 534 feet MSL contour.

Designation in this shoreline classification does not guarantee issuance of a Shoreline Lease and Use Agreement or suitability for shoreline facilities or docks. The classification simply indicates that the shoreline may be capable of accommodating a dock. Dock Capable shorelines are subject to water level fluctuations that may make docks and other shoreline improvements unusable at any time. Persons who wish to construct improvements on these shorelines are required to accept the risks inherent in constructing improvements in close proximity to and over the Lake because of the risks associated with flooding, high water, and drought conditions. These risks include lake level fluctuations that may result in improvements such as docks being completely unusable during flood or drought conditions, which can extend over months or years.

There are approximately 69.1 miles of shoreline allocated as Dock Capable, which are shown in bright green on the SMP classification maps (see **Appendix A**). Dock Capable shorelines represent approximately 40 percent of the Lake shoreline.

3.2.5 Public Access/Commercial Development

These shoreline areas are designated for developed public recreational access, such as public boat ramps, and for commercial concessionaire facilities, such as marinas or resorts. Public access points and commercial developments may be privately operated and may charge fees subject to the terms of an agreement with NTMWD that will be specifically tailored to the development, but they may not discriminate against any persons in compliance with federal and state anti-discrimination laws.

There are approximately 4.1 miles of shoreline or about 2 percent of the shoreline designated Public Access/Commercial Development. These areas are shown in red on the SMP classification maps (see **Appendix A**).

3.2.6 Future Commercial/Marina Overlay Zone

These shoreline areas are currently allocated as Dock Capable and are also designated with a Commercial/Marina Overlay. The overlay zone provides an indication of suitability for marina and commercial development based on physical characteristics of the shoreline and the adjacent land uses and transportation network. Commercial development in these overlay zones may be approved at the discretion of NTMWD subject to compliance with the requirements of the Public Access/Commercial Development classification without requiring a change in the official shoreline classification map. If such development is approved, the shoreline classification maps will be updated at the next regularly scheduled review and update cycle.

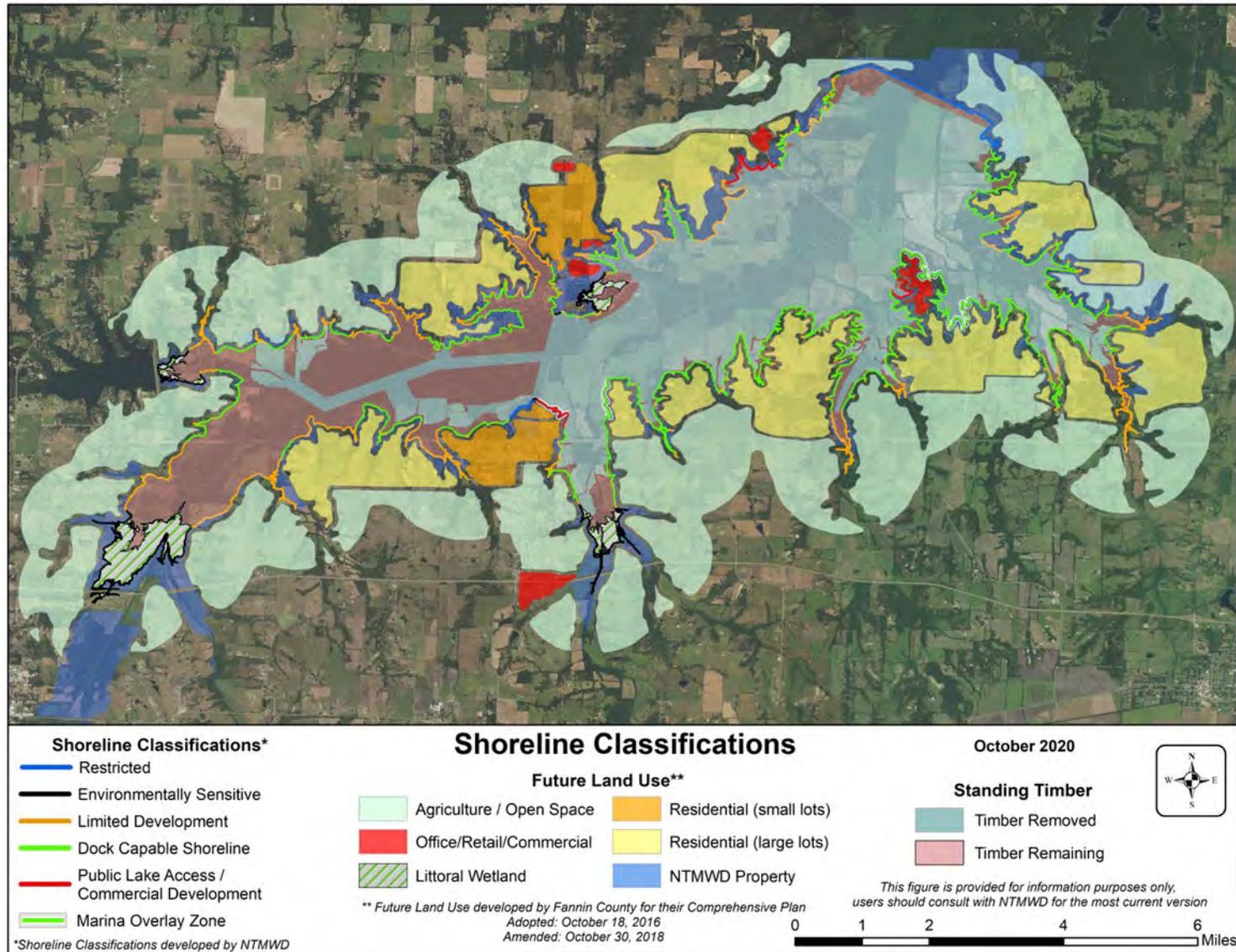


Figure 3-1. Shoreline Classifications

3.3 Water Surface Classification

The water surface of Bois d'Arc Lake is also classified to ensure consistency and compatibility with the shoreline classifications identified in this SMP and the *Fannin County Comprehensive Plan* and *Future Land Use Map*, and to comply with the Texas Water Safety Act (Texas Parks and Wildlife Code Chapter 31, Water Safety). The water surface is classified into four water surface classes (**Figure 3-2**). The relative acreages of each water surface class are shown in **Figure 3-3**.

3.3.1 Restricted

This classification is used for water areas restricted for project operations, safety, and security purposes or according to local, state, or federal law. Public access to these areas is not permitted. These areas are marked with buoys that physically prevent access and include areas immediately upstream and downstream of the dam, water intake structures, and any other areas determined to be a public safety or security concern. These areas correspond to the water surface areas within 200 feet of shorelines allocated as Restricted. There are 82.6 water surface acres or about 0.5 percent of the lake surface with this classification.

3.3.2 No Wake

This classification is used to protect environmentally sensitive shoreline areas and recreational water access areas from disturbance, and/or for public safety. Generally, areas marked as No-Wake are located at boat ramps, boating pass-throughs at bridges, and adjacent to marinas. The water surface within 100 feet of Environmentally Sensitive shorelines and the littoral wetlands are also designated as No-Wake zones. These areas are marked with No-Wake buoys in accordance with the Texas Water Safety Act. There are 832.5 water surface acres or about 5 percent with this classification.

3.3.3 Fish and Wildlife Habitat

This classification is used to identify areas where annual or seasonal restrictions are in place to protect fish and wildlife species during periods of migration, resting, feeding, nesting, or spawning. These areas may be marked with a combination of signs and/or buoys. This designation is generally applied to areas where standing timber has been left for fish and wildlife habitat. There are 4,248 water surface acres or about 26 percent with this classification.

3.3.4 Open Recreation

This classification is used for water areas available for year-round water-based recreational use. These waters can generally be used by vessels for water-based recreational activities. There are 11,479 water surface acres or approximately 69 percent with this classification.

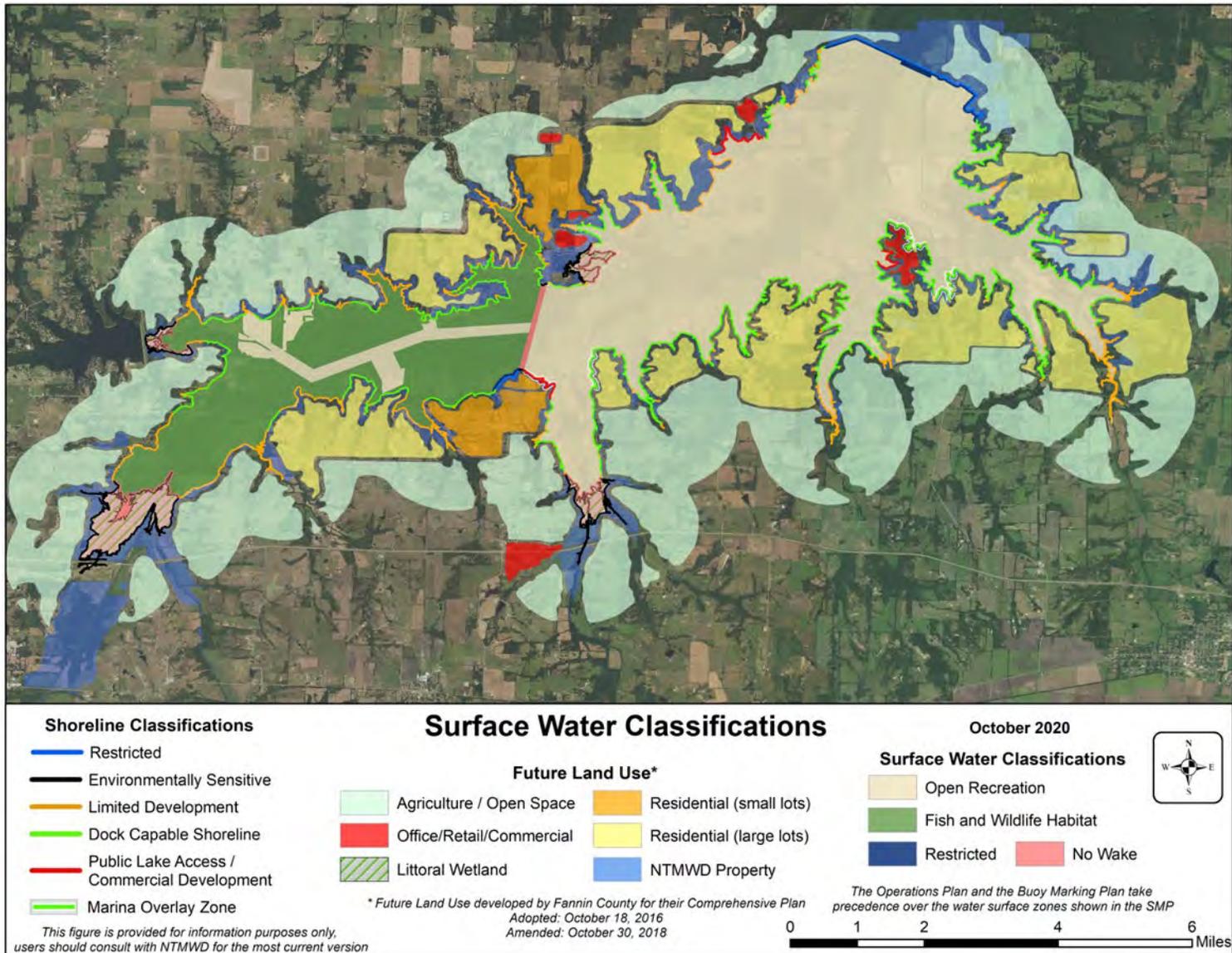


Figure 3-2. Surface Water Classifications

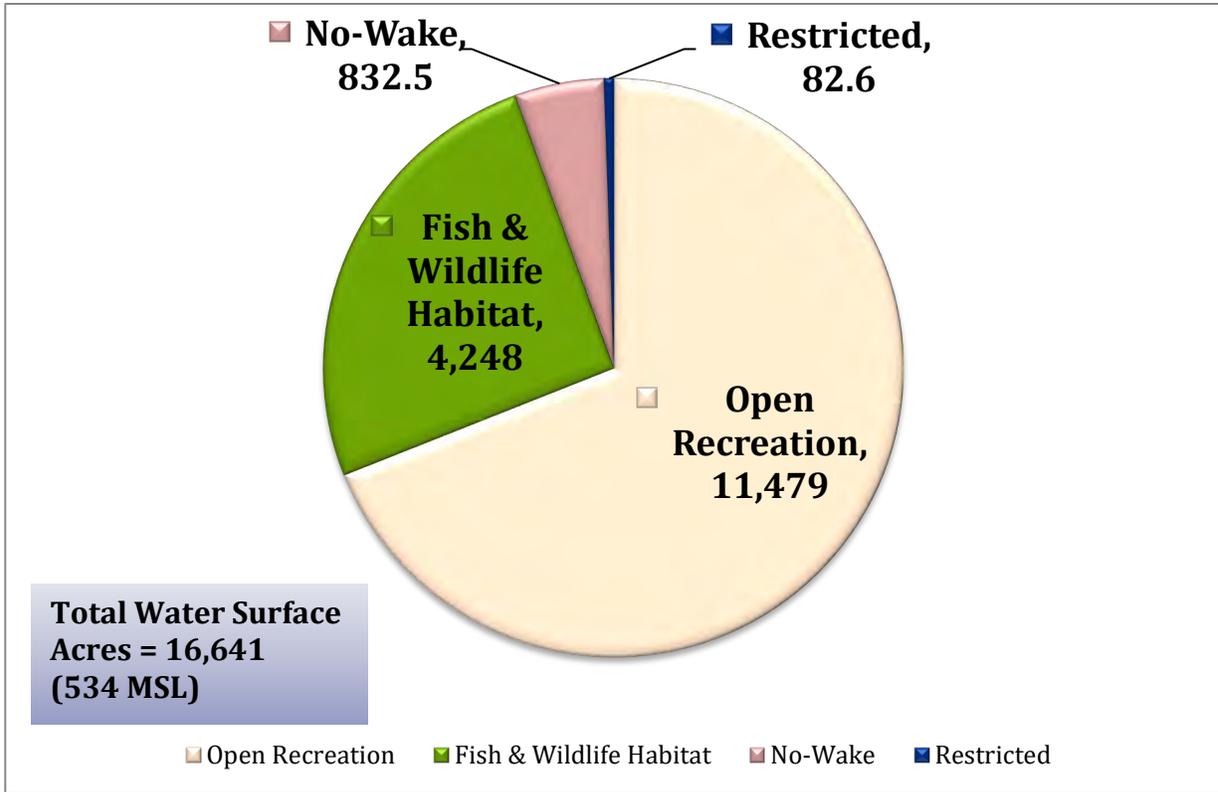


Figure 3-3. Water Surface Acres by Classification

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Section 4

Shoreline Lease and Use Agreements

4.1 Applicability

Private or commercial activities or facilities on NTMWD-owned property or over water are only allowed when authorized in writing by NTMWD. The type of written authorization issued by NTMWD depends on the type of activity or facility. The examples of activities and facilities given throughout this SMP are not intended to be all-inclusive. The activities and facilities that may be authorized by a Shoreline Lease and Use Agreement are not necessarily limited to those that occur along the shoreline. Any activity or facility that could alter the physical, chemical, biological, aesthetic, or social character of the shoreline, NTMWD-owned property, the water, or any other feature of Bois d'Arc Lake may be subject to review for authorization under an agreement with NTMWD.

4.2 General Requirements

4.2.1 Request for Authorization

Requests for authorization to construct facilities or conduct activities on NTMWD-owned property, including both land and waters, must be submitted to NTMWD online through the My Government Online (MGO) Connect system or in writing (see **Section 6** for application procedures). Application forms for the common activities and facilities are found in **Appendix C**. NTMWD reserves the right to alter the form or to request additional information at any time. If insufficient information is provided in an application for NTMWD to make a reasonable decision regarding impacts to NTMWD-owned property, NTMWD may request additional information. If the requested additional information is not provided in a timely manner or is still insufficient, then an application may be rejected.

Typically, only one Shoreline Lease and Use Agreement is issued per adjacent parcel (except for private community docks or event agreements), so all proposed activities and facilities should be identified on the application (see **Section 4.3** for a description of potential activities and facilities). Approved agreements may be modified at a future time subject to review and payment of appropriate fees. A new application would need to be submitted to authorize any modification to existing Shoreline Lease and Use Agreements. For example, a lessee (agreement holder) would need to submit a new application to authorize the development and maintenance of an access path to an existing agreement for a dock.

A more detailed description of the application review, approval, and renewal process is provided in Section 6.2.

4.2.2 Fees

Fees for Shoreline Lease and Use Agreements will be assessed for the review of applications. In addition, annual fees for use of NTMWD-owned property and for monitoring and inspections may also be assessed. Fees may be charged on a one-time or an annual basis depending on the activity

being authorized. Fees generally will be fixed for the term of a Shoreline Lease and Use Agreement (generally 5 years). Agreement renewal fees are generally assessed at a lower rate than the initial application fee. Agreement modification fees are assessed at 50 percent of the original application fee. See **Appendix D** for a complete schedule of fees.

4.2.3 Review and Approval

All applications for Shoreline Lease and Use Agreements are subject to approval by NTMWD. Typically, only one Shoreline Lease and Use Agreement is issued per adjacent parcel (except for private community docks and event agreements) and Shoreline Lease and Use Agreements are typically only issued to property owners whose land abuts NTMWD-owned property. In some circumstances, such as when a homeowner's association requests permission to construct a private community dock, the limitation to adjacent property owners may be waived. However, even in this case, the homeowner's association must represent some adjacent property owners.

4.2.4 Compliance with Other Laws

Any proposal for shoreline development or uses of the Lake that require an agreement with NTMWD must also comply with all other applicable local, state, and federal laws. For example, any proposed work within the Lake must comply with the Clean Water Act and the owner shall obtain the appropriate authorizations from USACE, as required. Such approvals, as may be required from other local, state, or federal authorities must be obtained and included in the application for a Shoreline Lease and Use Agreement.

4.2.5 Boundary Line Marking Requirements

The boundary line for NTMWD-owned property was established at a point in time and generally along the 541 feet MSL contour elevation, which is not necessarily a straight line. While this is generally true, there may be areas where the elevation 541 feet MSL exists inside or outside of the NTMWD property boundary line; this however, does not change the surveyed boundary line for NTMWD-owned property. Applicants are required to hire a registered surveyor to mark the common boundary line between NTMWD-owned property and the applicants' private property for a distance of 100 feet on either side of an activity and/or facility proposed on NTMWD-owned property. If the application is for a vegetation modification approval or other activity that does not involve the construction of a facility, then the boundary line must be marked along the length of the proposed activity or for a distance of 100 feet, whichever is greater, running parallel to the shoreline (**Figure 4-1**).

The boundary line should be marked using white Carsonite markers at the outer-most limits of the proposed area of use at the 541 feet MSL contour. Iron stakes shall be embedded in the ground every 50 feet along the 541 feet MSL contour and Carsonite markers placed to extend above the ground surface. A 3.5 inch wide white Carsonite marker should be driven approximately 2 feet below ground with the remaining marker approximately 3 feet above ground. If the area of use and adjacent side yard property boundary are the same then a concrete marker should be used which displays the surveyor's information. A map completed by a licensed professional surveyor depicting the survey result and electronic geographic information system (GIS) data shall be included with the Shoreline Lease and Use Agreement application.

The 534 MSL line shall also be surveyed. The surveyed line will extend either side of the dock up to 100 feet on either side of a proposed facility or to the projected side yard line, whichever is greater. Typically, the shoreline will be surveyed for 100 feet on either side of a proposed dock attachment point; however, if the proposal is for land-based facilities or vegetation modification, the area will extend for 100 feet to either side of the most centralized facility. This 534 MSL surveyed line shall be marked at the ends with temporary markers and with sufficient intermediate points to locate construction of the erosion control measures along the shoreline. Temporary markers along the shoreline must be able to withstand the elements for at least one year to allow for construction. A map completed by a licensed professional surveyor depicting the survey result and electronic GIS data shall be included with the Shoreline Lease and Use Agreement application.

Proposed activities including land-based facilities and vegetation modification must be placed between the 541 MSL and 534 MSL contours and within the 200-foot use zone defined by the shoreline survey. Docks must be placed within this 200-foot zone.

Points should be included in the survey with electronic GIS data and temporary markers on either side of the property where the projected side yard line continuing from the NTMWD property line intersects the shoreline at 534 MSL for distinguishing the boundary from a neighboring lease even if outside of the 200-foot use zone. Some types of temporary uses or special events may not require marking of the boundary line. For example, a special event that uses existing developed shoreline parking and is conducted on the lake surface would not require a survey.

4.2.6 Conditions and Exemptions

General terms and conditions that are uniformly applicable to most agreements are included in the sample agreement template in **Appendix C**. Unique circumstances may require the inclusion of additional terms and/or special conditions. Requests for activities not specifically addressed in this plan must be submitted through MGO Connect or in writing to NTMWD for review. Special exemptions may be allowed at the discretion of NTMWD. Any special conditions or requirements for exemptions must be included in the terms of the agreement and the rationale for granting the exemption will be documented in NTMWD's files. Exemptions may only be granted for circumstances that do not adversely affect NTMWD-owned property, water quality, or operations.

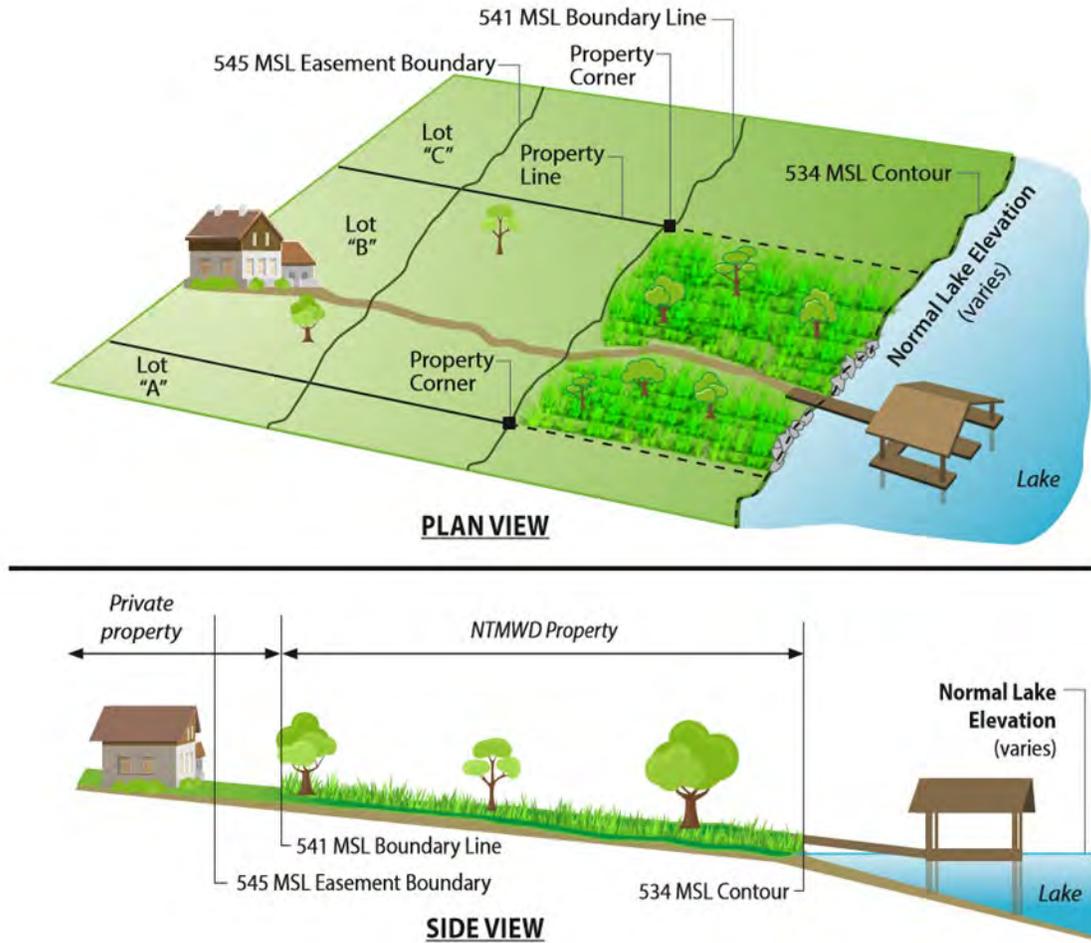


Figure 4-1. Boundary Line Marking and Spatial Requirements

4.2.7 Authorization Marking Tags

Shoreline Lease and Use Agreement holders are required to display two authorization tags with the agreement number and expiration month/year. These tags are provided by NTMWD and will be sent to the applicant upon approval of the agreement. Tags will be sequentially numbered. The agreement number will remain the same for the life of the agreement. Tags with new expiration month/year will be sent to the agreement holder at each agreement renewal. These tags are to be placed over or in the same location if the old tag is first removed.

For docks, one tag must be securely attached to and displayed on the shoreline side of the dock and the other tag on the lake side of the dock. For land-based activities and facilities, tags are to be placed in a visible location on the shore side and residence side of the improvement or nearest Carsonite marker. A sample authorization marking tag is shown in **Figure 4-2**.



Figure 4-2. Example Shoreline Lease and Use Agreement Tag

4.2.8 Agreement Terms and Transferability

Shoreline Lease and Use Agreements are generally issued for a period of 5 years. Agreements, authorizations, or leases cannot be transferred from one private party to another. New and prospective adjacent property owners should contact NTMWD for information concerning procedures. If the property in question has facilities and/or activities authorized by a previous agreement, the new owner must contact NTMWD within 30 days of the property purchase to apply for a new authorization. Generally, if the shoreline use is in compliance with the guidelines and standards of the SMP, then a new agreement will be issued to the new property owner. If no agreement is obtained, or if the agreement cannot be reissued, all previously authorized facilities and activities must be removed and/or discontinued at the agreement holder's expense.

4.2.9 Enforcement and Revocation

All agreements are issued and enforced in accordance with the provisions of this plan. Failure to obtain the proper authorizations or noncompliance with any of the terms and conditions, general or special, of an agreement, authorization, or lease may result in termination or revocation of the agreement and/or other enforcement action. See Section 7 on monitoring, inspections, and enforcement.

Ownership, construction, operation, use, and maintenance of authorized facilities and/or activities are subject to all agreement conditions and all applicable federal, state, and local laws and regulations. Failure to abide by these applicable laws and regulations may be cause for revocation of the agreement.

4.2.10 Right of Access and Use

The issuance of an agreement does not convey any real estate or personal property rights or exclusive use rights to the agreement holder. Owners of authorized facilities may take necessary precautions to protect their property from theft, vandalism, or trespass. Adjacent landowners may in no way interfere with the general public's use of the waters of the Lake, but it is not the

intent of NTMWD to allow general public access to lands and shorelines adjacent to private property. Holders of agreements who occupy NTMWD-owned property and waters may not interfere in any way with NTMWD personnel in the discharge of their duties to monitor, inspect, and enforce the conditions of each agreement.

NTMWD requires each agreement holder to provide the following information: name, address, phone number, and email. This information will be used by NMWD for purposes related to the monitoring, inspection, and enforcement of the agreements.

4.2.11 Agricultural Uses

The Fannin County Lake Zoning Regulations allow some agricultural uses near the Lake. Agricultural uses, such as grazing and harvesting hay or other types of animal feed, are prohibited on NTMWD-owned property. These types of activities may be conducted on lands covered by a flowage easement, subject to the terms of the specific easement. Fannin County prohibits the operation of large concentrated animal feed operations (“CAFO”), as defined by the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (EPA). The construction of permanent structures to house animals on NTMWD-owned property or easement lands is not allowed.

4.3 Types of Shoreline Lease and Use Agreements

There are five types of agreements or authorizations that may be issued and managed under this SMP. Each of these agreements or authorizations is issued for specific purposes. The types of agreements and their respective purposes are described in the following sections. Typical application forms and general conditions for each type may be found in **Appendix C**.

One or more of the agreement types is required for any and all private activities and/or facilities on NTMWD-owned property and on waters at Bois d’Arc Lake. All the types of agreements are governed by local, state, and federal laws, and the goals, guidelines, and standards included in this SMP.

4.3.1 Shoreline Lease and Use Agreement

Shoreline Lease and Use Agreements may be issued for activities and facilities that include private individual owners and private community docks, vegetation modification, access paths, and land-based recreational facilities such as decks, patios, pergolas, gazebos, and barbecue pits. Shoreline Lease and Use Agreements are intended for private uses of NTMWD-owned property along the shoreline and may not include any commercial activity. Dock slips, boats, and land-based facilities may not be rented, leased, or otherwise conveyed to parties who are not signatories to the Shoreline Lease and Use Agreement with NTMWD. Commercial activities are addressed in Section 4.4.

Prior to issuance of an agreement, the applicant must hire a Texas-registered professional surveyor to mark the common boundary line between their private property and NTMWD-owned property, according to the requirements identified in Section 4.2.5. Shoreline Lease and Use Agreements are authorized for a 5-year term and may be renewed for additional terms subject to review and approval by NTMWD. Surveys would not be required for agreement renewals if the circumstances have not changed.

Any facilities or improvements placed on or over NTMWD-owned property will be subject to water level fluctuations and may be flooded or left out of the water at any time. The lake shoreline is subject to dynamic natural forces such as drought or flooding without warning, and persons who wish to construct improvements, including docks, access paths, or other improvements, will be required to accept all risks associated with the hazards of lake level fluctuations. These risks include, but are not limited to, lake level fluctuations resulting in the improvements being completely unusable during flood or drought conditions, which can extend over months or even years. Fluctuating water levels or extended periods of high or low water may result in the destruction of or damage to improvements and property stored on NTMWD-owned property. NTMWD is not responsible for any loss or damage to any turf, landscaping, personal property, structure, or improvement located within NTMWD-owned property or flowage easements. In addition, the flooding and impoundment of water on and over the shoreline and flowage easements may deposit silt, debris, and trash. NTMWD is not responsible for any cleanup or removal of any such silt, trash, or debris resulting from any such events or otherwise.

The area where authorized activities and facilities may be placed will generally be the area below the 541 feet MSL contour line as bounded by an administratively projected side yard line. The line is used for planning purposes to define the shoreline area where the adjacent property owner may request approval to construct docks and other shoreline amenities within the NTMWD-owned property. The projected side yard line, in most cases, would be a continuation of the adjacent private property boundary line from the 541 feet MSL contour to the lake shore at contour 534 feet MSL. Exceptions may be granted for planned developments to maximize the equitable access and use of the shoreline by adjacent landowners. The use and access authorized under a lease and use agreement will be on a first come first served basis. The line that is extended to the 534 feet MSL contour may be drawn at an angle different from the adjacent private property boundary line to account for angled shorelines or property boundaries that are not perpendicular to each other and to provide for an equitable distribution of shoreline access to adjacent property owners. NTMWD will review projected side yard lines for an equitable distribution of shoreline frontage. The area defined by the projected side yard lines will define the shoreline area where the adjacent property owner may request approval to construct docks and other shoreline amenities within the NTMWD-owned property.

4.3.1.1 Private Docks

Private boat docking facilities include private individually owned boat docks and private community boat docks (see **Appendix B** for allowed dock types). Docks are approved for the owner's vessel and the storage of gear essential to the vessel's operation. All boats must be docked inside a slip, except for personal watercraft storage as described in this SMP. Boat docks must conform to the standards described in Section 5 and any other applicable provisions of this SMP. Overwater fishing piers or patios without boat docking facilities (up to a maximum of 200 square feet) may also be constructed upon authorization from NTMWD and the issuance of a Shoreline Lease and Use Agreement. The application and review process for facilities other than docks is the same as other Shoreline Lease and Use Agreements. Authorization for the construction of docks will require the construction of erosion control measures at the same time as dock installation (see **Section 4.6** and **Appendices F and G** on acceptable erosion control measures). A minimum 50 feet of shoreline protection on either side of a dock or to the projected side yard lines, if less, is required for all docks (**Section 4.6.1**). More shoreline protection may be

required so that all the shoreline fronted by a dock is protected or to close a gap to a neighboring shoreline protection feature.

Individually Owned Private Boat Dock

New agreements may be issued for private boat docks within shorelines allocated as Dock Capable, subject to the restrictions listed herein. Individually owned boat docks may contain one or two slips and must be either fixed or floating-pole docks. Additional standards for boat docks are found in Section 5 of this SMP and in **Appendix F**.

A Shoreline Lease and Use Agreement for a private dock does not give the owners any exclusive rights to use NTMWD-owned property beyond those specified in the Shoreline Lease and Use Agreement. Dock owners may not (a) remove or modify vegetation or trees, (b) construct breakwaters to protect the dock from wave action, (c) install buoys, or (d) dredge without prior approval. Requests for facilities related to a dock, such as an access path, vegetation modification, or land-based facilities, must be included in the Shoreline Lease and Use Agreement and are subject to review and approval by NTMWD. Issuance of a Shoreline Lease and Use Agreement for an individually owned dock does not grant permission to park on NTMWD-owned property.

An applicant requesting change of ownership to an agreement for an existing individually owned dock must obtain a new Shoreline Lease and Use Agreement from NTMWD within 30 days of the transfer of the adjacent land ownership.

Private Community Boat Dock

New agreements may be issued for private community docks within shorelines allocated as Dock Capable, subject to the restrictions listed herein. These docks may contain up to 20 slips. Authorization for a private community dock does not give the owners any exclusive rights to use NTMWD-owned property beyond those specified in the Shoreline Lease and Use Agreement. Dock owners may not (a) remove or modify vegetation or trees, (b) construct breakwaters to protect the dock from wave action, or (c) install buoys without prior approval. Parking and vehicular access is prohibited on NTMWD-owned property.

Shoreline Lease and Use Agreements for private community docks are issued to a homeowner's association, planned development community association, subdivision association, or community dock association. The association must be a legal entity with respect to Texas state law with the ability to enter into agreements. The association must include members who are adjacent property owners to Bois d'Arc Lake. Private community docks may not be authorized for associations with no direct access to NTMWD-owned property. However, private community docks may provide lake and boating access to individual members who may not otherwise have access to the shoreline or to members whose shoreline is unsuitable for dock construction. Private community docks are not for use by nonmembers.

The agreement will identify the president or other officer within the association who will serve as the authorized representative for the association. This person is synonymous with the term agreement holder or applicant in this SMP. The authorized representative is responsible for maintaining an up-to-date dock information form that identifies association members that have boats moored at the private community dock. The authorized representative designation does not give any more rights to that individual than the other dock owners.

Overwater Fishing Dock or Patio Dock

Overwater fishing piers or patios that do not have boat docking capabilities (i.e., are designed without slips or docking capabilities for motorized boats and PWC) are limited to a maximum of 200 square feet. These must be either fixed or floating pole docks without mooring slips and may be constructed in both Dock Capable and Limited Development shoreline classifications upon approval of a Shoreline Lease and Use Agreement. Motorized boat moorage is not allowed at these docks. The standards and conditions for dock construction and materials are described in Section 5, except as noted herein, and also apply to these types of facilities. Refer to **Appendix F, Section 3** for the standards that apply to these types of docks.

Removal of Standing Timber

Some portions of the Lake have large amounts of standing timber remaining below the normal conservation pool elevation of 534 feet MSL. This timber has been left as a condition of the USACE construction permit and provides habitat for fish and wildlife and protects the shoreline from erosion. Most of the standing timber has been left in the western portion of the Lake where the water surface is classified for fish and wildlife habitat. Standing timber may create a hazard to navigation that would be more extreme at lower water levels. Standing timber may also restrict access to shorelines that may otherwise have physical characteristics suitable for boat dock use.

Applications for a boat dock may include a request to clear some of this standing timber. Applications to remove standing timber can only be applied for in conjunction with an application for a boat dock. All requests for removal of standing timber must go through a two-step process. First, the applicant must provide a timber clearing plan to NTMWD for review and receive a preliminary approval from NTMWD to proceed to the second step. Second, the applicant must contact USACE to review the proposed clearing plan. The coordination with USACE must review (a) whether the proposed clearing is consistent with the Bois d'Arc Lake construction permit and (b) whether the proposed clearing requires a Clean Water Act Section 404 permit from USACE. The applicant must document the responses to both items.

If the proposed clearing is determined to be consistent with the Bois d'Arc Lake construction permit by USACE, then the applicant must also obtain any other required permits or approvals from USACE before NTMWD will proceed with the review of the Shoreline Lease and Use Agreement.

Proposals for removal of standing timber may not exceed 0.5 acres total timber clearing per Shoreline Lease and Use Agreement. The applicant is responsible for obtaining the necessary approval and permit from USACE. NTMWD will maintain a tally of the total acreage cleared in the Lake and will consult with TPWD on potential effects to fish and wildlife habitat from the cumulative loss of standing timber during the review of each application. If there would be significant adverse effects on fish habitat, then an application will be denied. Adverse effects may result from the cumulative loss of standing timber or from site specific concerns related to an individual application.

If standing timber removal for boat dock access is approved, then the clearing will conform to the following standards:

- Boat access lanes from the dock to the nearest open water shall be a maximum of 50 feet wide
- No more than 0.5 acres of standing timber shall be approved for removal with any one boat dock agreement
- Access to multiple docks may be provided via one access lane
- Clearing may not be accomplished with heavy equipment with tracked wheels
- Trees may be cut at ground level, but all stumps and root wads must remain in place for erosion control
- All cut material must be removed from NTMWD-owned property so that it does not create a hazard to others or damage NTMWD-owned property
- Cut material may not be burned on NTMWD-owned property

Dredging

Lake dredging is not permissible by private individuals but may be allowed for community docks or commercial uses, such as marinas, if the following conditions are met: (1) prior to dredging, the applicant must obtain approval from NTMWD for the dredging activity; (2) if approval from NTMWD is obtained, the applicant must then obtain appropriate state or federal permits, including a USACE Section 404 permit; and (3) after the USACE approval is obtained, the applicant must complete the NTMWD agreement process by providing NTMWD with a signed USACE permit. In addition, if the request for dredging or excavation is received prior to completion of construction of the reservoir project, NTMWD may also be required to obtain a modification to the Department of Army authorization to construct the reservoir before NTMWD could provide approval to the applicant to proceed. Applicants are advised that this may be a lengthy process.

4.3.1.2 Vegetation Modification

NTMWD supports and promotes the maintenance and restoration of a naturally vegetated shoreline. Naturally vegetated shorelines guard against erosion and provide fish and wildlife habitat. Natural vegetation filters stormwater runoff and does not require fertilizers or pesticides for its maintenance. A naturally vegetated shoreline is the most effective method of water quality protection.

Vegetation modification is the removal or selective thinning of woody vegetation and native plants from NTMWD-owned property. Vegetation modification, such as tree thinning or underbrushing, must have prior written approval from NTMWD. Applications for vegetation modification will only be considered along shorelines allocated as Dock Capable or Limited Development and must be granted through issuance of a Shoreline Lease and Use Agreement. Where significant wildlife habitat, scenic/aesthetic resources, or highly erodible soils are present, requests for vegetation modification may be denied or additional restrictions may be included in the agreement.

The planting of native plants may be authorized under a no-cost Natural Resource Management Notification (**Section 4.3.3**). NTMWD encourages the replacement of non-native invasive plant species with native plant species and a reduction in fees for Shoreline Lease and Use Agreements may be available (see **Section 4.6** for a description of the incentive program). Please see Natural Resource Management Notification and **Appendix I** for a list of native plants for Bois d'Arc Lake. The planting of turf grass and other non-native landscape vegetation is not allowed.

Under-brushing

Under-brushing is the removal of brush and shrubs from under taller trees to create an open park-like condition. Under-brushing will be limited to a maximum of 100 feet from any authorized facility or, if there is no facility, for 100 linear feet, as measured parallel to the shoreline. If there are multiple facilities, the area shall be measured as 100 feet on either side of the most centralized facility. Typically, the area shall be measured 100 feet on either side of a dock attachment point. The use of tractors or other types of heavy equipment or application of herbicides for vegetation modification are not allowed.

The limits of vegetation modification will be clearly identified and defined in the Shoreline Lease and Use Agreement. Trees and shrubs up to 2 inches in diameter (measured at ground level) may be removed. Native, noninvasive, flowering trees or shrubs such as dogwood, redbud, or serviceberry, cannot be removed, regardless of size. Trimming, limbing, or topping of trees and chemical manipulation of vegetation is not allowed. Cut material must be removed from NTMWD property; chipped material may be left on site, subject to prior approval by NTMWD.

Standing Timber Below 534 Feet MSL

Vegetation modification approvals are not to be applied to clearing of standing timber below the 534 feet MSL elevation. Clearing of timber below 534 feet MSL is strictly controlled by NTMWD and may only be considered in association with an application for a boat dock (see **Section 4.3.1.1** for conditions).

Dead Trees and Limb Hazards

Cutting of dead trees without a vegetation modification Shoreline Lease and Use Agreement is prohibited. Dead trees which have fallen to the ground within an approved vegetation modification area may be cut up and removed from NTMWD-owned property or left for wildlife habitat. Trees which have fallen to the ground outside a vegetation modification area must be left in place, unless it is impeding an authorized access path.

Dead, standing trees that present a potential hazard to a permanent structure or pose a safety threat from the risk of falling on a designated foot path or structure may be approved for removal through a Natural Resource Management Notification (see **Section 4.3.3**).

4.3.1.3 Access Path

A foot path to the water's edge may be authorized. The path cannot exceed 5 feet in width and must meander with the contours of the land to prevent erosion. The path route will be the shortest meandering distance between private property and the Lake. The use of landscape timbers is not allowed on the path. If an authorized path to the shoreline creates an erosion problem, erosion control measures and/or redesign of the path must be implemented. If the

erosion problem persists, the agreement may be revoked, and the terrain would be required to be restored. Digging, placement of fill material, or construction of bridges is not allowed. Trees may be limbed along the path to keep the immediate area of the path clear for walking (up to a maximum area of 5 feet wide and 7 feet tall).

4.3.1.4 Land-Based Facilities

Other land-based facilities, such as decks, patios, pergolas and gazebos, or flagpoles may be authorized only along shorelines classified as Dock Capable or Limited Development. All land-based facilities placed on NTMWD-owned property must meet the following criteria and must be authorized in a Shoreline Lease and Use Agreement:

- Must be set back from the 534 feet MSL contour a minimum of 50 feet.
- Must be located within the use area.
- Must be open on all sides. No enclosed structures are allowed.
- Must be anchored to the ground.
- Must not float during periods of high water. Objects that could float, including patio chairs, free-standing grills, coolers, bird feeders, or any object not anchored to the ground, are not allowed to remain unattended on NTMWD-owned property.
- Must be able to withstand inundation for extended periods of time, which may be up to 3 months or longer.
- Cannot be used for storage purposes.
- At no time are hazardous materials (e.g., pesticides, herbicides, cleaning products, fertilizers) or fuels to be stored on NTMWD-owned property.
- Cannot be used to house or shelter livestock or any type of domestic animal.
- Use of pressure- or chemical-treated wood is strictly prohibited.
- Rubber pavers and rubber mulch are not allowed.
- Cannot be used for human habitation.
- No wastewater treatment facility of any kind or portion of a facility shall be placed on NTMWD-owned property or easements.
- Cannot be taller than 15 feet, as measured from ground level.
- Cannot have a footprint larger than 1,000 square feet, measured as the sum total for all land-based facilities authorized under a Shoreline Lease and Use Agreement. Individual facilities may have more restrictive size limits as detailed in **Appendix F, Section 3**.
- Must be used to support the recreational use of NTMWD-owned property.

- Must be constructed in a manner that minimizes erosion.
- May not be used for any commercial activity (**Section 4.4**).
- Roofing material must be earth-toned in color.
- Must be constructed to blend in with the natural setting.
- Electrical power must be provided via on-site solar installations certified by a state-licensed electrician.
- Barbecue pits and fireplaces may only be operated in accordance with local regulations and in compliance with local burn bans and regulations. All burning material must be contained within the surround (i.e., the area used to contain the fire) at all times.
- Lake water may not be diverted for ANY purpose, such as to irrigate or provide water to any land-based structure, vegetation, or activity at any time.

4.3.1.5 Erosion Control Structures

Erosion control and bank stabilization structures not associated as a requirement for dock construction may be allowed on a case-by-case basis. Adjoining landowners may apply for a Shoreline Lease and Use Agreement to complete a bank stabilization project, subject to all current federal, state, and local laws and regulations. Applicants should contact NTMWD for current requirements. Examples of structural shoreline erosion control measures that may be authorized can be found in **Appendix G**.

4.3.2 Special Event/Temporary Use Agreement

Special event or temporary use agreements are intended for short-term uses that do not involve the construction or installation of permanent facilities (see **Appendix C-2**). This type of agreement authorizes temporary events (less than 2 weeks) involving 25 or more persons or vessels or other short-term temporary uses of NTMWD land and/or water. Examples include fireworks displays, water skiing demonstrations, competition courses where the facilities are removed immediately after the event, or fishing tournaments. The event sponsor is responsible for submitting an application to NTMWD with the applicable fees at least 60 days before the event.

All facilities associated with special events must be removed from the Lake within the time specified in the special event/temporary use agreement. Special event/temporary use agreements may not be renewed.

Ski courses and ski jumps will only be considered for placement on Bois d'Arc Lake when they are temporary in nature and associated with an officially sanctioned water-skiing demonstration or competitive event. Water skiing and wake boarding competition and event sponsors must be associated with an official water-skiing organization with sufficient insurance to cover such an event. At the discretion of NTMWD, coordination with local law enforcement may be necessary for special events where public safety could be affected.

4.3.3 Natural Resource Management Notification

Activities that support beneficial Natural Resource Management practices, protect public safety, and promote natural ecosystems may be authorized through a simple notification (see **Appendix C-3** for a notification form). There is no fee associated with this notification, but the work is not authorized until the applicant has received a reply from NTMWD. Activities authorized through this notification process may include removal of two hazard trees that threaten public safety (e.g., overhanging a dock gangway, access path, or land-based facility on NTMWD-owned property), control or removal of invasive noxious weeds using approved chemical controls, or the planting of native plants along the shoreline. An approved native plant list is provided in **Appendix I**.

Noxious weeds include those listed by the Texas Department of Agriculture and TPWD. Chemicals used to control invasive weeds must be approved for that use and for the species to be controlled and they must be applied in compliance with Texas state laws and regulations. A list of noxious and invasive vegetative species for the state of Texas can be found at:

<http://txrules.elaws.us/Gateway/Html//TITLE4/PART1/CHAPTER19/SUBCHAPTERT/19.300/2018-11-29/HTML/201300604-1.html>. The use of herbicides or pesticides to control aquatic invasive vegetation is only allowed with TPWD approval under the state Aquatic Vegetation Management Plan and after notification of NTMWD through the Natural Resource Management Notification process.

4.3.4 Legal Nonconforming Use Authorization

NTMWD entered into real estate agreements to purchase the lands underlying Bois d'Arc Lake prior to the development of this SMP. Some of those agreements contain provisions for uses and activities on NTMWD-owned property that do not conform to the standards laid out in this SMP. Upon adoption of the SMP, NTMWD will provide to each such adjacent landowner a shoreline authorization confirming the provisions of those real estate agreements. There is no fee and no application process for this authorization.

Only those nonconforming uses that were included in legal real estate documents as of the time of the construction of the lake may be covered by this type of authorization. Uses on NTMWD-owned property that are not documented in real estate agreements, regardless of whether they may have historically occurred in those locations, must go through the Shoreline Lease and Use Agreement process and pay any applicable fees. Such uses would only be approved if they are in compliance with the SMP.

Legal nonconforming use authorizations shall be included in the NTMWD Shoreline Lease and Use Agreements management system and will be included in regular monitoring and inspection cycles with other Shoreline Lease and Use Agreements. If unauthorized modifications of the legal nonconforming use are found, then appropriate notification and enforcement actions will be implemented as described for other Shoreline Lease and Use Agreements in Section 4.2.

4.3.5 Mobility Assistance Vehicle Agreement

Motorized vehicles of any sort are generally prohibited from driving on or parking on NTMWD-owned property. Regular motorized vehicle use can damage plants and soils, creating erosion and sedimentation and introducing pollutants from fuel and lubricant leaks. However, persons with

mobility issues may require motorized vehicles to access shoreline facilities and docks. Persons who require assistance may apply for a mobility assistance vehicle agreement (see **Appendix C-4**). For a nominal fee, NTMWD will process these requests and issue an authorization for the use of motorized vehicles such as golf carts, all-terrain vehicles (ATVs), or utility terrain vehicles (UTVs) for access to the shoreline along approved paths. Mobility assistance vehicle paths will be limited to a maximum 6-foot-wide path. A Mobility Assistance Vehicle (MAV) display tag will be provided by NTMWD with agreement number and expiration date to be placed on the vehicle designated for use.

The following conditions must be met for an agreement to be granted. Abuse of any of these conditions are grounds for termination of the agreement:

- Authorized dock owners may apply for this authorization for another user
- Applicants must own land adjacent to NTMWD land or have legal access
- Only golf carts, ATVs, or UTVs are allowed
- The agreement is for the sole purpose of transporting the applicant to the shoreline or an approved facility
- The vehicle will only be driven on a designated authorized access path
- The access path will comply with the conditions in the SMP for a pedestrian foot path, except for path width
- The path will not exceed 6 feet in width and must follow a meandering route
- Digging, placement of fill material, or construction of bridges will not be allowed
- Authorized users must have a MAV display tag on the vehicle or a copy of their mobility assistance vehicle agreement readily available when using the vehicle on NTMWD-owned property
- The mobility assistance vehicle agreement is granted for a 5-year term

If the authorized path causes erosion, use of the trail must cease and the terrain must be restored by the agreement holder. (See **Appendix G** for information on identification of emerging erosion issues). Access paths are authorized under a separate Shoreline Lease and Use Agreement.

The general prohibition on motorized vehicle use in shoreline areas should not be construed to include infrequent vehicle access for construction and maintenance of shoreline facilities. During regular monitoring of the shoreline, NTMWD will note emerging erosion issues and may require repairs when these are noted.

4.4 Commercial Activities

Commercial activities such as marinas, resorts, restaurants, campgrounds, and wedding venue rentals (**Figure 4-3**) shall be authorized by NTMWD through a contractual agreement. Commercial activities are those not covered by agreements described in this SMP, including the

Shoreline Lease and Use Agreement, Special Event/Temporary Use Agreement, Natural Resource Management Notification, Legal Non-Conforming Use Authorization, and the Mobility Assistance Vehicle Agreement. Agreements may include long-term leases for occupancy of NTMWD lands and waters. Agreements for commercial activities shall be no longer than 50 years and are subject to renewal. The terms and conditions of such agreements will, by their nature, be unique to the proposed development. Fees for review of commercial applications may vary and should reflect the staff time required for site inspections, review of the proposal, and coordination with other agencies and the county. NTMWD may charge an hourly fee for the review and preparation of an agreement for commercial activities in addition to other lease terms. Long-term lease agreements for commercial activities may require an annual fee that may be based on a percentage of gross revenues or other metrics as deemed appropriate by NTMWD. The contracting party shall expressly agree in any lease or contract that the lease or contract is not a contract subject to Chapter 271, Subchapter I of the Texas Local Government Code because no “goods or services” are provided by the contracting party to NTMWD pursuant to such lease or agreement. Inspections of commercial operations are conducted at least quarterly by NTMWD.



Figure 4-3. Example Marina and Restaurant

4.5 Other Shoreline and Lake Uses

This plan is not intended to prohibit the lawful use of the Lake surface for recreational boating, fishing, or hunting. The Fannin County Sheriff and TPWD game wardens are responsible for enforcing safe boating and recreational water safety and hunting and fishing laws. Boats on the Lake must be properly registered, and the registration must be displayed in accordance with the requirements of the Texas Water Safety Act. Boats must be operated in accordance with the Texas Water Safety Act. Fishermen and hunters must have the appropriate licenses and operate during legal seasons.

The Texas Water Safety Act (2019) includes provisions to protect water quality. Pursuant to the Texas Water Safety Act, violations of the TCEQ Sewage Disposal Regulations constitute a misdemeanor. Game wardens, marine safety enforcement officers, peace officers who are certified as marine safety enforcement officers, and the county's designated representative can enforce these regulations if they suspect sewage disposal violations such as sewage discharge in prohibited areas or improper operation of marine sanitation devices. TCEQ requires any boat with a permanently installed marine sanitation device that operates on any water in Texas to have a marine sanitation device certification and display the certification decal. The Fannin County Lake Zoning Regulations (2018) state that "No operation or activity shall discharge or cause to be released into public waters any liquid or solid waste unless in conformance with the latest provisions of TCEQ, Texas Department of Health, and/or Texas Railroad Commission" (**Section 3.05**). Additionally, the Fannin County Sheriff has the ability to enforce environmental regulations such as prohibiting illegal dumping.

4.5.1 Duck Blinds

Temporary floating duck blinds can be used on the Lake in accordance with state fish and game laws, which can be found at: <https://tpwd.texas.gov/regulations/outdoor-annual/>.

4.6 Erosion and Stormwater Control Best Management Practices and Incentives

Maintaining water quality is a high priority in the management of Bois d'Arc Lake. Erosion affects water quality by suspending sediments in the water column. Shoreline erosion may occur from both the erosive forces of lake waters and waves against the shore and from the action of stormwater runoff from the land washing over the shoreline into the Lake. A key concern is the potential for stormwater runoff to carry pollutants from the land into lake waters. Shoreline erosion best management practices (BMPs) are generally intended to address erosive forces and may have little effect on preventing pollutants such as fertilizers, herbicides, and pesticides from entering the water. Stormwater BMPs can address both stormwater erosion and water pollution effects, but generally have little effect on the erosive forces on the shoreline from lake-based sources (e.g., waves, wakes). Therefore, both types of BMPs may be required to protect the shorelines and water quality of Bois d'Arc Lake.

4.6.1 SMP Erosion Control Requirements

Erosion control/shoreline stabilization measures are required to be installed along a designated minimum length of shoreline on either side of authorized docks (**Section 4.3.1.1**). These

measures will provide some protection against erosion from lake waters and waves washing against the shoreline. Refer to **Appendix F, Section 6** for standards related to required erosion control measures.

This SMP requirement is generally intended to provide for a minimum 50 feet of shoreline protection on either side of a dock or to the projected side yard line, if less (**Figure 4-4**). Because the area defined by the projected side yard line may not provide for a full 50 feet on either side of a dock due to dock spacing and lot configuration restrictions, the erosion control/shoreline stabilization measure will extend up to 50 feet from either side of the dock. Localized conditions may modify the amount of erosion control/shoreline stabilization required. For example, an area with an existing hard rock outcrop may not require as much engineered structure to achieve the same result. More shoreline protection may be required so that all the shoreline fronted by a dock is protected (e.g., if a dock is placed parallel to the shoreline it may be wider than 50 feet on one side) or to close a gap to a neighboring shoreline protection feature.

Lessees must agree to allow abutting lessee(s) (i.e., adjacent property owners) to connect to the erosion protection mechanism so installed, so as to not create gaps between abutting properties in the erosion protection.

The required erosion control measures are not eligible for incentives. The hard BMPs required to be installed with dock development generally do not provide water quality benefits.

4.6.2 Additional Shoreline Stabilization Measures

Hard BMPs are required to be installed associated with dock development and may be protective of shoreline soils, but they may also reflect wave energy (i.e., bounce the wave energy back into the lake where waves may then attack other unprotected shorelines or create a choppy lake surface unsuitable for small boats). Wave energy reflected off a hard shoreline can create additional problems related to erosion and recreational suitability of lake waters. Other shoreline erosion control solutions that are energy absorptive rather than reflective are available; however, they may take more effort to maintain and may be less effective in the high energy environment adjacent to a dock where there is a lot of boat traffic close to the shore. Therefore, incentives are included in this SMP and fee structure to encourage adjacent landowners to implement energy absorptive shoreline erosion control measures beyond the minimum required hard solutions adjacent to dock structures.

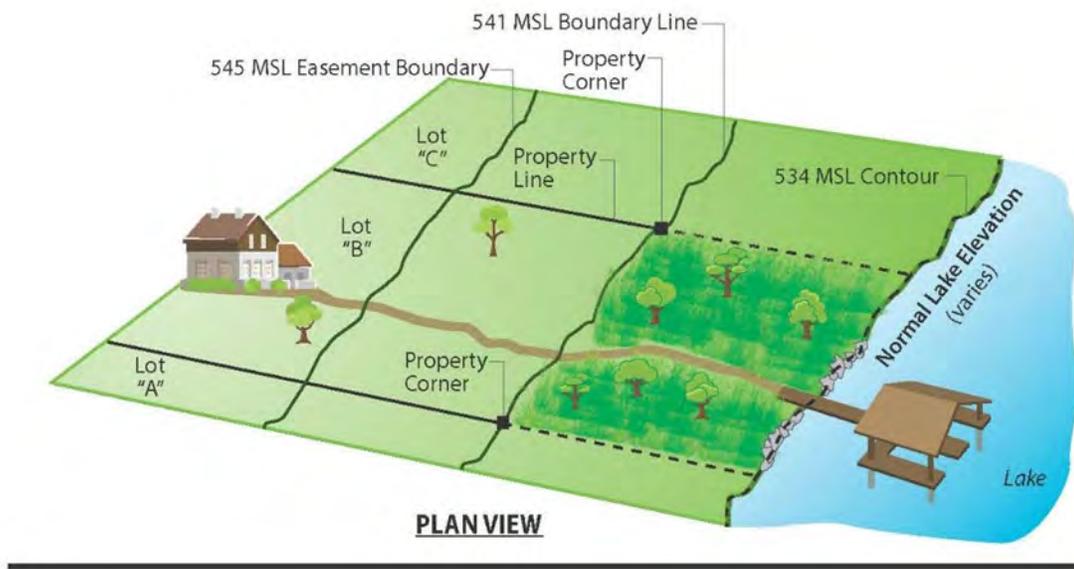


Figure 4-4. Projected Side Yard Lines and Hard Erosion Control BMP Installation

Energy absorptive measures generally use vegetation to slow and absorb wave energy or tapered slopes to attenuate wave run-up. Care should be taken to select plant species near the shoreline that are tolerant of periodic inundation and dry spells due to water level fluctuations. Proposals to implement shoreline erosion protection through vegetation will be considered on an individual basis.

4.6.3 Additional Stormwater Management Measures

Stormwater runoff is potentially the largest source of impacts on water quality through erosion and the transport of pollutants from the land into lake waters. Because the required shoreline erosion control measures may not provide sufficient protection from pollutant transport in stormwater runoff, additional stormwater management measures are desirable as land areas around the lake develop. Effective stormwater runoff control measures for pollutant control can be simple to implement and may require little effort beyond a commitment to maintain native vegetation. Stormwater BMPs such as vegetated filter strips, swales, and rain gardens are relatively easy to establish and maintain (see **Appendix G, Section F1.3.1**, Vegetated Filter Strips and Bioswales, and **Section F1.3.2**, Rain Gardens and Rain Barrels). More complex systems such as bioretention basins (**Appendix G, Section F1.3.3**) and sand and media filters (**Appendix G, Section F1.3.4**) may be appropriate for developments with larger or more concentrated impacts such as subdivisions.

Stormwater runoff BMPs are generally focused either on capturing and managing stormwater runoff from impervious surfaces (roofs, pavement) or on slowing and treating stormwater runoff as it flows over land to the Lake. BMPs that capture and manage stormwater generally need a system to capture the stormwater and direct it to the management system such as a rain garden or a bioretention basin. For single family residences, the roof/gutter system captures much of the runoff from impervious surfaces. A rain barrel can be used to capture the runoff and meter it out into a rain garden. Driveways or paved patios, for example, that are sloped towards the lake could

have a system of shallow swales constructed to capture the runoff and direct it through a vegetated swale or to a rain garden or other treatment system.

The easiest solution is a vegetated filter strip parallel to the shoreline. This is a band of native vegetation that is not mowed or trimmed and is preserved in a natural state. Vegetated buffers filter runoff by slowing water velocity and increasing infiltration by 10 to 15 times compared to grass turf. The use of vegetated buffers in this way has been proven to trap 80 to 90 percent of sediment and pollutants. While turf grass does have dense roots, when it is mowed, it does not provide the roughness needed to slow overland flow of stormwater runoff and filter out the sediments that are carried by stormwater runoff from adjacent development. Native grasses and woody vegetation intercept and slow the velocity of runoff and reduce scouring. The closer the vegetated strip is located to the 534 feet MSL boundary line, the more effective the measure will be at managing stormwater runoff and water quality; however, vegetated filter strips located anywhere between the Lake and adjacent impervious surfaces is acceptable for consideration of incentives.

A vegetated buffer strip should:

- Consist of trees, shrubs, and/or grasses that are native to the region
- Be at least 45 feet wide or 100 percent of the distance from the lake shore to the NTMWD easement boundary, or to the 541 feet MSL boundary line if there is no easement, if the greater of these widths is less than 45 feet
- Be oriented parallel to the shoreline
- Extend across a significant portion of the effective property width (at least 75 percent)
- Not be mowed; native herbaceous vegetation should be allowed to grow naturally

4.6.4 Incentive Implementation

4.6.4.1 Incentive Rate Reduction

Up to 50 percent of the annual agreement fee may be waived if stormwater control and/or erosion control measures are maintained and functional on an annual basis.

4.6.4.2 Qualifying Actions

Measures that address shoreline erosion control with energy absorptive measures should extend along a majority of the shoreline remaining within the effective property boundaries after the required measures have been installed.

Measures that capture stormwater runoff should capture the runoff from all impervious surfaces that slope or drain toward the lake that are larger than 800 square feet with the exception of agricultural structures such as sheds and greenhouses.

Measures that filter general stormwater runoff must be oriented parallel to the shoreline, be a minimum of 45 feet wide, extend at least 50 percent of the width of the effective property boundaries, and consist of unmowed or untrimmed native vegetation.

4.6.4.3 Inspection and Monitoring

NTMWD will inspect the erosion and stormwater control measures each year during the annual inspection process under the Shoreline Lease and Use Agreement. If the measures have been maintained and are functional, then the incentive credit will be applied to the annual fee. Application and renewal fees are not eligible for incentive rate reductions.

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Section 5

Dock Standards

5.1 Requirements for Private Docks

Private docks include both individually owned private docks and private community docks. Approved docks must conform to the standards described in this section and in **Appendix F**. Commercial docks, such as at a marina, may vary from these standards if approved through a NTMWD commercial concession contract or lease agreement. Although commercial facilities may vary from the standards described in this SMP, NTMWD will refer to the private dock requirements for guidance in reviewing proposed commercial dock facilities.

5.1.1 Dock Access Requirements

NTMWD Shoreline Lease and Use Agreements are only issued to applicants who own property immediately adjacent to NTMWD-owned property. Applicants must provide a recorded deed and recorded plat for the adjacent private property. To be considered for a Shoreline Lease and Use Agreement for a dock, the applicant's property must share a common boundary with NTMWD-owned property that is classified as Dock Capable. The applicant's lot must be of a practical design (i.e., extremely shallow or narrow lots will not qualify for Shoreline Lease and Use Agreements). Public roads do not meet legal access requirements to the shoreline. Refer to Section 4.3.1 for more information on determining the shoreline frontage.

As described in Section 4.3.1.1, private community docks may not be authorized for associations with no direct access to NTMWD-owned property. However, private community docks may provide lake and boating access to individual members who may not otherwise have access to the shoreline or for members whose shoreline is unsuitable for dock construction. The association that applies for a private community dock must have some members with property adjoining NTMWD-owned property and those adjacent property owners must be a contiguous part of the development or subdivision represented by the association. Private community docks are not intended to provide lake access to noncontiguous property owners or for developments, subdivisions, or communities that are not adjacent to the Lake.

5.1.2 Application for a New or Modified Shoreline Lease and Use Agreement for a Private Dock

The application process for a Shoreline Lease and Use Agreement is described in Section 6. Applications for a Shoreline Lease and Use Agreement for any new dock or a modification to an existing dock must be submitted to NTMWD through MGO Connect or in writing. Any new facility or modification must be located within shoreline allocated as Dock Capable. For a full list of submittal requirements and additional details please see **Appendix F**. The process starts with an inquiry to NTMWD for review. NTMWD staff will schedule and conduct a site inspection to determine if the location is physically suitable for a boat dock. If acceptable, the applicant must then provide the following submittals through MGO Connect in order to receive an approval to proceed with construction:

- Shoreline Lease and Use Agreement application. The application must be in the name of the private individual dock owner or association.
- An electronic set of engineer-reviewed and stamped/sealed plans of the entire proposed facility. In addition to the actual structure, plans must include all proposed amenities, including but not limited to storage boxes, personal watercraft (PWC) moorage, boat lifts, and solar battery storage. Standards for docks and other improvements and the application submittal requirements are included in **Appendix F**.
- Solar electrical certification, as applicable.
- When replacing an existing dock, the agreement holder must submit a letter or an inquiry through MGO Connect stating the old dock will be dismantled and removed within 30 days of the installation of the new dock.
- Provide proof of land ownership that is immediately adjacent to and shares a common boundary with NTMWD-owned property.
- If the adjoining land is jointly owned (e.g., trust, LLC, nonprofit), the dock owners must provide documentation indicating their interest in the jointly owned property and their ability to enter into binding agreements on behalf of the entity.
- All application for docks must include shoreline protection measures (see **Appendices F and G**).

5.1.3 Agreement Renewals

The process for the renewal of Shoreline Lease and Use Agreements is described in Section 6.9. Applications for the renewal of expiring agreements for private boat docks must include the following:

- A completed and signed Shoreline Lease and Use Agreement application with signatures of the applicant and alternate point of contact as appropriate. Additional submittal requirements are detailed in **Appendix F**.
- Payment of applicable fees (see **Appendix D** for fee schedule).
- Electrical certification (if applicable)(**Appendix C-5**).
- Certificate of Compliance or statement signed by NTMWD that all noted deficiencies have been corrected. This statement signifies that the dock and its associated erosion control measures meet current SMP requirements (**Appendix C-7**).

The renewed agreement may then be reissued to the existing agreement holder with a new expiration date. All conditions of the new agreement will apply at that time.

5.2 Dock Location and Spacing Requirements

The 534 feet MSL elevation contour is used as the reference point for standards related to location, spacing, density, and depth. Dock location and spacing standards are also described in **Appendix F**.

5.2.1 Location

New boat dock facilities will only be considered in areas allocated as Dock Capable as indicated on the shoreline zoning map. The entire facility must be located within the Dock Capable Area. A site visit with NTMWD staff will be conducted prior to applying for a Shoreline Lease and Use Agreement to determine whether a proposed location is suitable. Dock Capable zoning is not a guarantee of boat access suitability or of authorization for approval.

In most cases, docks will be placed within the primary frontage of the adjacent private lot. If site conditions within the primary frontage are not conducive for a dock, including but not limited to inadequate water depth, unusual land features, prevailing wind issues, and/or spacing issues, a Shoreline Lease and Use Agreement will not be approved.

Docks must be installed perpendicular to the shoreline (i.e., the gangway and other supported walkway must be perpendicular to the shoreline, not angled). In locations where two or more portions of private property qualify for placement of a dock in the same area, but multiple docks would prevent one or more docks from meeting spacing requirements, Shoreline Lease and Use Agreements will be issued on a first-come, first-served basis.

5.2.2 Dock Spacing

Dock spacing requirements are different for docks located east of the FM 897 bridge than those located west of the bridge. Docks located east of the bridge must provide at least 100 feet of space between the proposed dock and all other docks at normal pool elevation (534 feet MSL) (**Figure 5-1**). This minimum spacing provides a buffer area for boat maneuverability, water level fluctuation, and public safety. Docks west of the bridge must be located 200 feet apart to ensure fish and wildlife habitat management goals are met (**Figure 5-2**).

The dock spacing distance is measured from closest point to closest point of each dock at conservation pool elevation (534 feet MSL). Dock spacing standards provide for fire protection, personal privacy, improved shoreline aesthetics, and protection of fish and wildlife habitat. Additional space and/or length restrictions may be imposed because of navigation concerns such as obstruction of channels or obstruction of access to coves and/or existing docks.

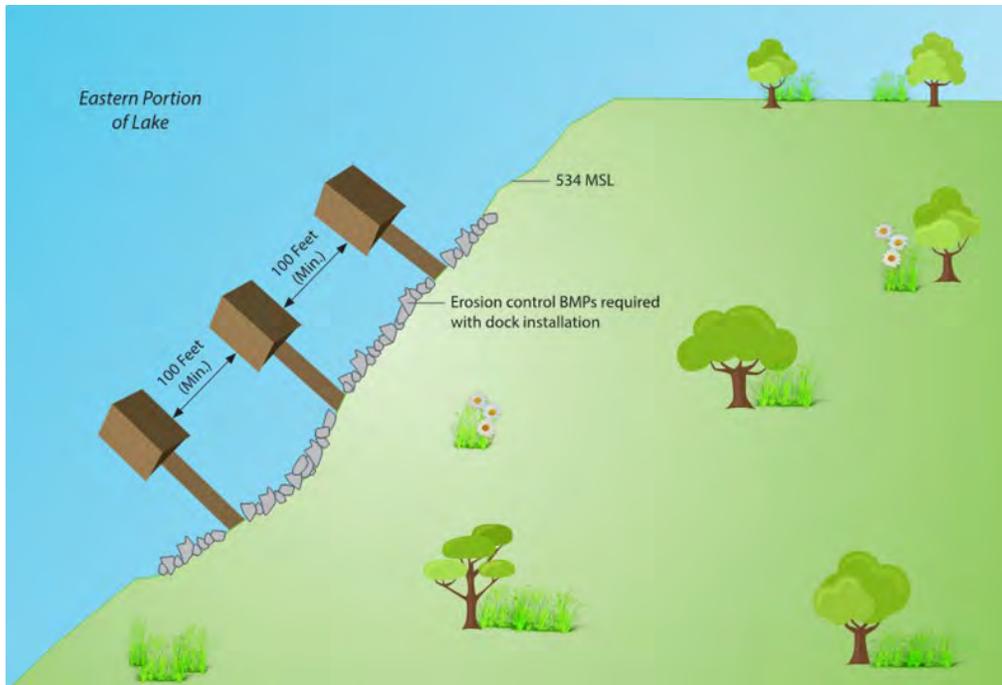


Figure 5-1. Dock Spacing, Eastern Portion of the Lake (East of FM 897 Bridge)

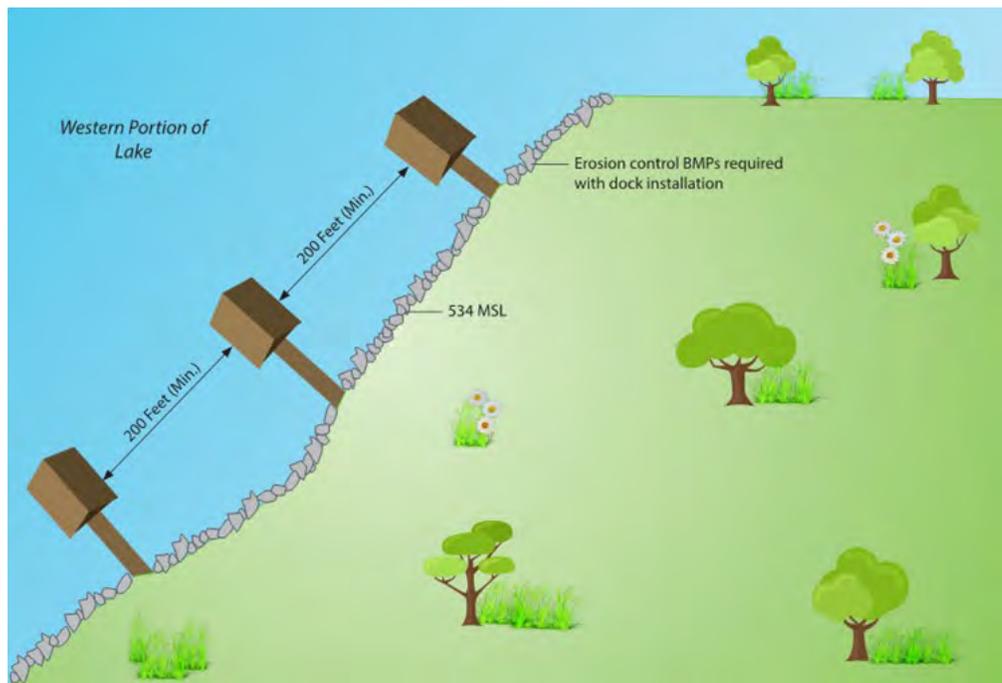


Figure 5-2. Dock Spacing, Western Portion of the Lake (West of FM 897 Bridge)

5.2.3 Cove Width

No facility will extend out from the shoreline more than one-third the total width of any particular cove, measured from elevation 534 feet MSL. If docks are placed across the cove or Lake from each other, one-third of the cove's width must remain open for navigation. In addition,

the 100-foot minimum spacing between docks (see **Figure 5-3**) also applies to the dock ends that may extend toward each other from opposite sides of a cove.

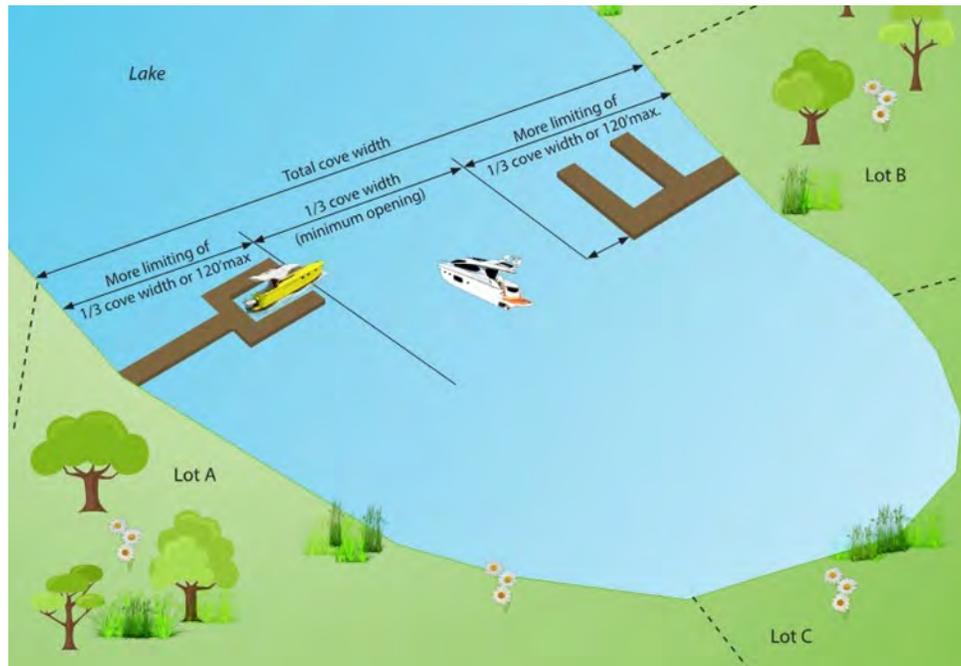


Figure 5-3. Cove Width Requirements

5.2.4 Water Depth and Slope

Low water conditions and potential hazards may exist in some areas because of normal fluctuations in the Lake's elevation. If the proposed dock will have at least 3 feet of water depth at the point where the gangway or other supported walkway and the dock connect when the lake elevation is at 534 feet MSL, a shoreline use application will be accepted for review. All Shoreline Lease and Use Agreements are issued in relation to the normal conservation pool elevation of 534 feet MSL. The issuance of a Shoreline Lease and Use Agreement for a dock does not guarantee continual usability of the structure. Water levels may frequently fall below the functional range of the allowable dock types because of normal pool fluctuations, drought, sedimentation, and other events. The bottom elevations at a particular location may limit the use of a dock. High water conditions may also render the allowable dock types unusable. Generally, when lake levels approach or fall below 525 MSL, public access ramps will be closed preventing boats from entering or exiting the lake.

Site inspections cannot be conducted if the Lake elevation is unreasonably high or low. Both high and low water conditions limit the ability of NTMWD staff to make a valid evaluation of cove width, water depth, and distances between docks. Generally, site inspections for new docks and dock modifications will be performed when lake elevations are between 526 feet MSL and 534 feet MSL. A minimum of 3 feet of water depth is required where the gangway or other supported walkway and the dock meet to provide adequate depth for boat operation, lifts, and underwater bracing.

Ease of pedestrian access to the dock location should be considered by the applicant, with the understanding that new construction of steps or stairs may not be approved. A site may be denied for a Shoreline Lease and Use Agreement for a boat dock if there are obvious access limitations or safety issues, such as a bluff or severe slope, or where shoreline conditions would prevent proper dock maintenance by the applicant. Shoreline Lease and Use Agreement approval or denial is at the discretion of NTMWD based on a review of all of the factors in each case.

5.2.5 Dock Configuration

Docks may be constructed in a perpendicular or parallel design. The access ramp to the facility must be perpendicular to the shoreline and docks cannot be located at an angle. Any proposed lifts must be shown on the plans. Boat lifts must be within slips interior to the dock. PWC lifts may also be on the shoreside of the dock. One boat lift per slip and up to two PWC lifts are allowed.

5.2.6 Contractor Requirements

All plans for docks, including gangways, must be approved by a Texas-licensed engineer to ensure a quality, safe design suitable for conditions on Bois d'Arc Lake. NTMWD maintains contractor requirements including requirements for registration with NTMWD through MGO Connect and maintain minimum levels of insurance.

Contractors performing work on behalf of Lessees who have obtained written authorization from NTMWD must meet the requirements outlined in the contractor requirements document available on the NTMWD Bois d'Arc Lake website in order to perform work on NTMWD property. These requirements are intended to ensure that contractors performing work on NTMWD property maintain minimum levels of insurance and up to date information with NTMWD as well as understand key NTMWD requirements for design and construction of improvements along the shoreline. These requirements are intended to help minimize risks to public health and safety as well as NTMWD property.

A list of registered contractors is maintained by NTMWD and may be provided to applicants. The Shoreline Lease and Use Agreement applicant may coordinate with the registered contractor of their choice for construction of their dock or other shoreline improvements. Only contractors with up-to-date information in MGO Connect will be allowed to work on NTMWD property.

Registered contractors may submit master plans for preapproval for each type of dock they intend to build, along with a master list of available colors, sizes, floatation type, gangway size and placement, roof pitch, and anchoring systems. These plans must be approved by a Texas-licensed engineer and the engineer's stamp must be included on the plans. Once approved, these plans will be kept on file at the Lake Operations Center.

If an applicant does not want to contract with a registered dock builder with master plans or minimum standards on file, they may submit their own plan provided it is approved and stamped by a Texas- licensed engineer and accepted by NTMWD. All guidelines of the contractor requirements must also be met by the individual. The applicant will also include a statement with the plan certifying that the dock will be built in accordance with the Texas-licensed engineer-approved plan.

5.2.7 Dock Construction Requirements

Applications for new facilities or modification of existing facilities must include plans signed and stamped by a professional engineer licensed in the State of Texas. Alterations to the original approved plan may not be made without prior approval, except as noted below (see **Appendix F** for submittal requirements). All construction must follow all other federal, state, and local laws and NTMWD policies and regulations. All solar electrical facilities designs must follow the National Electrical Code, as updated, revised, or superseded. Electrical plans must be signed and stamped by a professional electrician licensed in the State of Texas or signed by a Master Electrician licensed in the State of Texas. Section 5.2.9 includes additional requirements; however, if there is any conflict between this SMP and the National Electrical Code, the more stringent rule will apply. All electrical needs must be supplied by on-site solar.

If any modification to an authorized facility is requested, an electronic set of engineer-reviewed and stamped plans of the entire facility must be provided through MGO Connect. In addition to the actual structure, plans submitted for review and approval must include all amenities, including but not limited to storage chests, boat lifts, PWC moorage, and solar battery storage.

5.2.8 Design and Construction Standards

Minimum and maximum sizes for dock components are provided in **Table 5-1** and **Appendices B** and **F**. All docks must be fixed or floating-pole docks. Allowable dock types are described in **Appendix B**. Additional explanations of the standards are provided in the following subsections and in **Appendix F**.

Table 5-1. Dock Component Standards

Component	Minimum Size or Requirement	Maximum Size or Requirement
Main Dock Walkway (Width)	3 feet	6 feet
Walkway Finger Between Slips (Width)	3 feet	6 feet
Boat Dock (Maximum dock width or length = 60 feet)	200 SF	1,000 SF
Fishing/Patio Dock (No side less than 10 feet)	200 SF	200 SF
Slip (Width)	N/A	12 feet
Slip (Length)	N/A	30 feet
Access Ramp – Gangway (Width)	3 feet	6 feet
Access Ramp – Gangway (Length)	20 feet	60 feet*
Deck, Walkway, Gangway – Design Load (Substructure)	30 ppsf	N/A
Wind Load (Superstructure)	20 ppsf	N/A
Roof Load (Superstructure)	10 ppsf	N/A
Roof Overhang	0 inches	24 inches

SF = square feet; N/A = not applicable; ppsf = pounds per square foot

* See **Appendix F, Sections 2.2, 2.3, and 2.6** for additional standards applicable to gangways.

Dock Types

Docks must be either fixed docks or floating pole docks (see **Appendix B** and **Appendix F, Section 2.1**). Fixed docks cannot be moved vertically or horizontally. They are constructed on fixed pilings that are embedded in the bottom of the lake. As water levels fluctuate, the fixed dock will either be higher out of the water when Lake levels go down or inundated as Lake levels increase. Floating pole docks are attached to poles at each corner that are set into the lake bottom. A floating pole dock moves vertically as water levels fluctuate in the Lake. The length of poles determines the amount of vertical distance the dock is able to move up and down with fluctuating Lake elevations. Generally, floating pole docks can have approximately a 10-foot elevation change because of limitations associated with the stability of the fixed poles, but this may be extended with appropriate engineering.

Dock Size

The maximum size for a private individual dock is 1,000 square feet. Neither the length nor width of the structure can exceed 60 feet. Square footage will be calculated excluding the gangway. Roof overhangs of 24 inches will be allowed, before being included in the measurement. Docks are limited to one level. The minimum size dock allowed is 200 square feet with no one side being less than 10 feet. Enclosed docks are not allowed. All sides of the dock must be open. See **Appendix F, Section 2.3** for dock size standards.

Flotation

Floats and the flotation material for all docks shall be fabricated of materials manufactured for marine use. The float and its flotation material shall be 100 percent warranted for a minimum of 8 years against sinking, becoming waterlogged, cracking, peeling, fragmenting, or losing beads. All floats shall resist puncture and penetration and shall not be subject to damage by animals under normal conditions for the area. All floats and the flotation material used in them shall be fire resistant. The use of new or recycled plastic or metal drums or non-compartmentalized air containers for encasement or floats is prohibited. Damaged floats must be repaired or replaced as soon as practicable. See **Appendix F, Sections 2.5 and 2.7** for dock flotation standards.

Standards for Gangways

If site conditions permit and safety considerations allow, docks may be authorized to have a maximum 60-foot-long gangway, which is the articulating and unsupported section of the walkway. The minimum length of gangway allowed will be 20 feet. Gangway width may vary from a minimum of 3 feet to a maximum of 6 feet. See **Appendix F, Sections 2.2, 2.3, and 2.6** for standards applicable to gangways. The maximum 60-foot gangway will not be allowed if:

1. The length of the dock, gangway, and any supported walkway combined will extend more than 120 feet from the 534 feet MSL contour.
2. The total structure (dock, gangway, and other supported walkway combined) will extend beyond one-third the width of a cove at normal pool elevation (534 feet MSL).
3. The structure will be closer than 100 feet to another authorized dock.
4. The structure will extend into a marked navigation channel, cause a navigational hazard (e.g., blind curve), or block access to coves or other authorized docks.

Roofs

If a roof is attached to the dock, it may be gabled or single-pitched and must be securely fastened to the superstructure to resist wind uplift. Minimum thickness of steel roofing material is 28-gauge and of aluminum material is 0.032 inches. Only brown, green, gray, or earth-tone-colored roofs are allowed. See **Appendix F, Sections 2.3, 2.4, 2.6, and 2.7** for standards applicable to dock roofs.

Anchorage

An anchorage system shall be provided to secure the gangway of the boat dock to the shoreline. Anchorage systems utilizing deadman or ground stakes shall be installed flush with the existing grade. Anchor cables or other securing devices shall be maintained in good repair and located to minimize obstruction hazards to land-based activities and boaters. Anchor cables will not be attached to trees, stumps, power poles, guardrail posts, etc. Anchor pins and cables should be placed to prevent physical damage to trees. Anchor cable must be a minimum of 3/8-inch stainless steel cable. See **Appendix F, Sections 2.6 and 2.7** for standards applicable to dock anchorage.

Construction Materials

The dock deck and substructure must be constructed using recycled plastic, galvanized metal, or aluminum. The use of pressure- or chemical-treated wood is not permitted because of hazards to water quality. The superstructure must be constructed of a similar design and construction materials (i.e., recycled plastic, galvanized metal and/or aluminum). At no time shall pressure-treated wood be used on NTMWD-owned property or water. All materials used in construction of the dock must meet EPA, national, state, and local guidelines. All materials used in construction must be new. See **Appendix F, Sections 2.5, 2.6, and 2.7** for standards related to dock materials.

Handrails

Handrails will be provided on at least one side of the gangway or other supported walkway leading to the dock and perimeter areas of the dock, except for a swim deck, which only requires hand and guard rails on the shoreside. Gates or safety chains may be used in areas on the perimeter of the dock where frequent loading/unloading takes place. Chains shall not span more than 4 feet.

Handrails shall be approximately 42 inches in height with a guardrail approximately 20 inches below the handrail. Handrails must be structurally sound and maintained in a state of good repair. Handrails must withstand a load of at least 200 pounds applied in any direction at any point, with a minimum of deflection. See **Appendix F, Section 2.6** for standards related to handrails.

Storage Chests

A minimum-sized storage chest may be constructed for the storage of equipment necessary for recreational boating, such as oars or personal flotation devices. Storage chests may not exceed 8 feet long by 3 feet wide by 2.5 feet high. Only one storage chest per slip is allowed. A minimum of 3 feet of open decking must be provided on the walkway for access. Chests may be placed at the end of fingers or on the shoreside of the dock. Storage chests may not be used to store fuels or

other hazardous substances regardless of construction. Storage chests are subject to inspection by NTMWD. See **Appendix F, Section 2.6** for standards related to storage.

Personal Watercraft

PWC may be docked inside of a regular-sized boat slip or on the shoreside of the dock. PWC lifts are allowed but must be included on certified dock plans. PWC lifts may be on the shoreside of the dock or within a slip. Used lifts from other lakes may not be brought to or installed in Bois d'Arc Lake. See **Appendix F, Section 2.6** for standards related to lifts.

Swim Decks

A swim deck may be included as part of the dock, but it will be included as part of the square foot measurement for the dock. Maximum square footage of the swim deck may not exceed 200 square feet. Swim decks are not allowed on the shoreline side of a dock. Diving boards, water slides, and elevated platforms are prohibited. Swim decks must be uncovered. See **Appendix F, Section 2.6** for swim deck standards.

Authorization Tags

Two authorization tags will be provided by NTMWD upon approval of the Shoreline Lease and Use Agreement for a dock. One is to be securely mounted on the waterside of the dock and the other on the shoreline side of the dock. New tags with expiration month/year will be sent to the agreement holder at each renewal of the agreement. These tags are to be placed over or in the same location if the old tag is first removed (**Figure 4-2**).

Electric Service

Electric service must be supplied by on-site solar energy. All energy needs including lighting or lift operation must be supplied by on-site solar. A copy of the electrical inspection form must be certified by a state-licensed electrician and included with the shoreline use application (see **Appendix C-5**). The electrical inspection/certification would be conducted at the applicant's expense. Refer to **Appendix F, Section 2.6** for electrical service requirements.

Dock Lighting

All boat docks are to be lit from dusk until dawn. All lights must be fixed, not flashing and yellow/amber or white in color (LED bulbs with a color temperature less than 3,000 Kelvin meet this requirement). To prevent confusion with navigation lights, red or green lights are not allowed. All lighting will be installed to reflect light downward to avoid blinding boat operators. No bulbs should be directly visible to boaters or a neighbor's property. All lighting shall be shielded to prevent light trespass and sky glow. See **Appendix F, Section 2.6** for dock lighting standards.

Recirculating Pump

A recirculating pump may be placed on the dock for use in cleaning fish and performing dock and boat maintenance activities. All elements of a fish cleaning station must be located on the dock and piping, including temporary hose connections, may not be extended from the lake to the shoreline for any purpose. Pumps or the use of lake water for irrigation purposes are not allowed. See **Appendix F, Section 2.6** for standards related to pumps and dock cleaning stations.

Amenities

Docks are approved for the owner's recreational vessel and storage of gear essential to operation of the vessel. Any amenities that present the appearance of human habitation are not allowed. The following items are prohibited on boat docks: diving boards, slides, grills, playground equipment, plants, birdhouses, indoor furniture, couches, sinks, cabinets, appliances, satellite dishes, permanent stereo systems, and televisions. Decorative lights (rope lights, string lights, party lights, holiday lights, etc.), underwater lighting, hot tubs, curtains, showers, fire pits, and ceiling fans are also prohibited. Refer to **Appendix F, Section 5** and your Shoreline Use and Lease Agreement for additional examples of prohibited amenities.

Mooring Buoys

The use of mooring buoys is not allowed anywhere in the Lake.

Construction Access

Construction access for dock building activities may be from either the shoreside of the dock or the waterside. Accessing the dock from the shoreside would be less disruptive to the aquatic environment. Restoration of shoreline vegetation would be required to stabilize areas disturbed by construction equipment and to prevent erosion and sedimentation issues resulting from construction. The prevention and control of erosion is the responsibility of the applicant and contractor during and post-construction.

5.2.9 Private Dock Operation and Maintenance Requirements

All maintenance of authorized single owner or community docks and associated erosion control structures is the responsibility of the private property owner(s). Construction, operation, and maintenance of all overwater structures is subject to the terms and conditions of the applicable Shoreline Lease and Use Agreement for each structure. Routine and preventive maintenance should be conducted regularly to ensure the dock and all its components are safe and in good operating condition. Dock owners should follow all maintenance requirements recommended by the dock builder. Lessees should also refer to their manufacturer's or builder's operations and maintenance manuals and documents for requirements specific to the materials, construction, and accessories installed on an individual's dock. A basic dock inspection checklist of items is provided in **Appendix C-6**. This is not an all-inclusive list but provides general guidelines for routine inspection of boat dock components. Erosion control structures will also require maintenance. Requirements may vary depending on the type of erosion control installed.

The following list is intended to provide an overview of the expectations of dock operation and maintenance on NTMWD shorelines in accordance with the Bois d' Arc Lake SMP. This is not an exhaustive list of maintenance requirements.

1. Damaged floats must be repaired or replaced as soon as practicable.
2. All maintenance of authorized single owner or community docks and associated erosion control and stormwater management measures is the responsibility of the agreement holder(s).
3. Storage chests are subject to inspection by NTMWD. Locks do not preclude the authority of NTMWD from the ability to inspect storage chests.

4. No fuel or hazardous materials may be stored on docks or any overwater structure.
5. No treated wood may be used or stored anywhere on a dock or overwater structure.
6. Personal watercraft (PWC) may only be docked in a slip or on the shoreside of a dock authorized for motorized boat moorage.
7. Agreement authorization stickers must be prominently displayed; one on the waterside and the other on the landside of the dock or overwater structure; authorization stickers must be up-to-date and be easily visible from the water.
8. Any amenities that present the appearance of human habitation are not allowed.
9. The following items are prohibited on docks and overwater structures: diving boards, slides, grills, playground equipment, plants, birdhouses, indoor furniture, couches, sinks, cabinets, appliances, satellite dishes, permanent stereo systems, televisions, or any other similar amenities that may be floatable, give the appearance of human habitation, or present safety hazards to users of the lake.
10. Decorative lights on overwater structures (rope lights, string lights, party lights, holiday lights, etc.), underwater lighting, hot tubs, curtains, showers, fire pits, and ceiling fans are prohibited.
11. Shoreline vegetation disturbed by construction must be restored.
12. Lessees are responsible for the general upkeep of NTMWD property including keeping areas litter free, and avoiding activities that result in erosion or adversely affect water quality.

Section 6

Application Review Process

6.1 Initial Inquiry

The Shoreline Lease and Use Agreement process is initiated when a potential applicant conducts an initial inquiry about a project or about the agreement review process. This is usually the first step in the agreement review process (**Figure 6-1**) and may be done via an inquiry in MGO Connect or a phone call, formal letter, office walk-in, etc. Potential applicants are also encouraged to visit the Bois d'Arc Lake website for information about the agreement review process. Meetings with real estate developers, homeowners' associations, or federal, state, or county governments may be required. Many of these initial inquiries do not result in an agreement being processed or issued.

If a shoreline development proposal is related to a large multi-home/multiunit development proposal on the adjacent private land, then a joint preapplication meeting with the applicant, NTMWD, and Fannin County development review officials is recommended. It is the intent of NTMWD to coordinate shoreline development with appropriate land development in conjunction with Fannin County zoning requirements. Incompatible shoreline uses and land development may be avoided through joint preapplication meetings wherein the applicant presents their proposals for both the shoreline uses and the land development.

Joint preapplication meetings benefit the applicant and help the county and NTMWD achieve their joint goals for orderly development of the lands surrounding the Lake. However, application for shoreline uses will need to be submitted directly to NTMWD and include the information required by NTMWD.

6.2 Background Investigation

NTMWD will investigate all known records and data to determine whether the location proposed for the activity or facility is suitable. For example, if the request is for a boat dock, the shoreline must be zoned as Dock Capable. This background review requires the NTMWD staff to review all known records and related data on the proposed location for the requested agreement. This process may include review of records, previous correspondence, the SMP, and maps, and general shoreline conditions such as water depth, wind fetch, existing authorized facilities, cultural and historical sites, cove size, soil conditions, topography, and special environmental features.

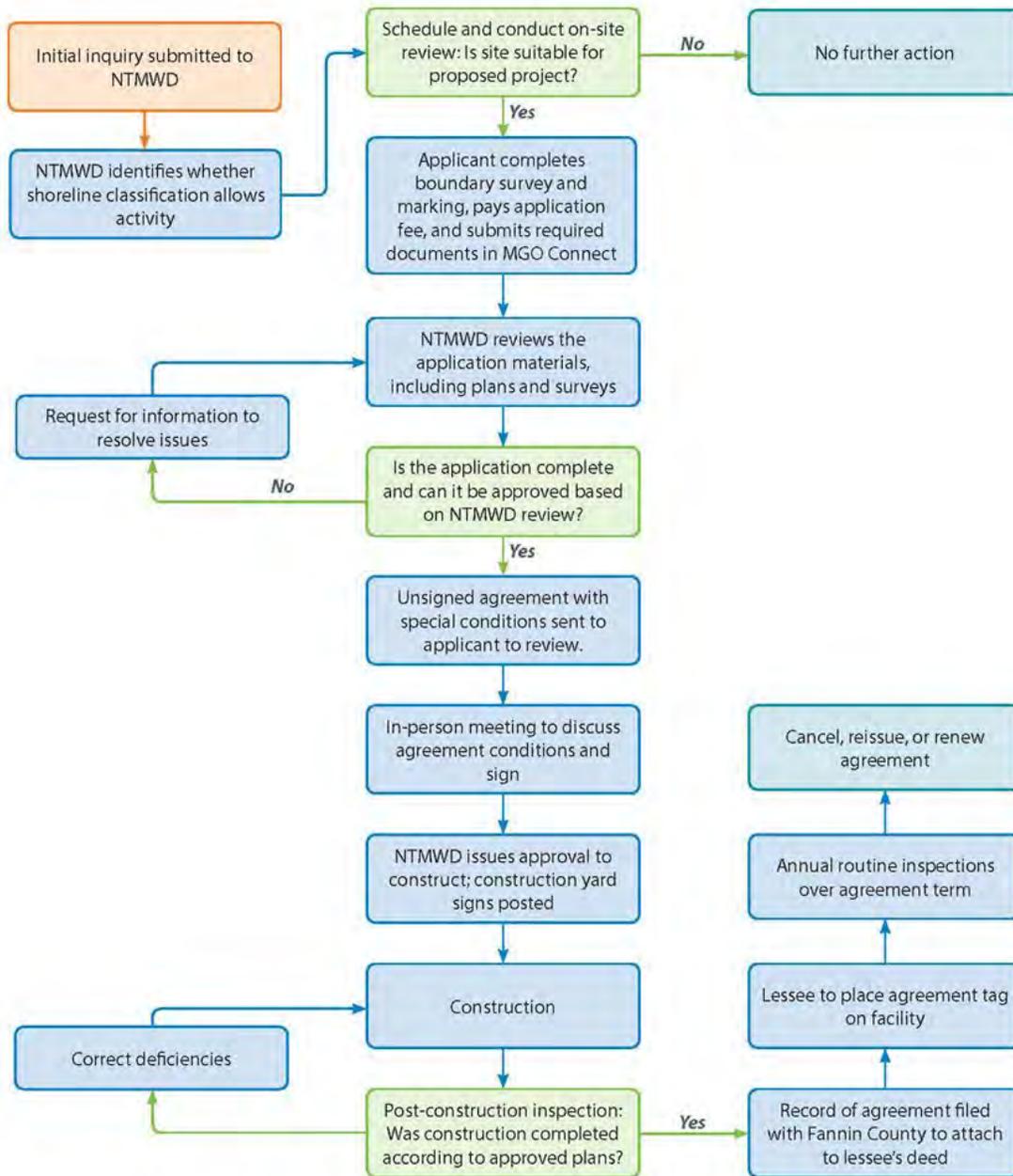


Figure 6-1. Shoreline Lease and Use Agreement Review Process

6.3 On-Site Review

Providing the initial inquiry and background investigation have progressed favorably, the prospective applicant is contacted to set up an on-site meeting. NTMWD staff and the prospective applicant will meet at the proposed facility/activity site to inspect the site. At this meeting, NTMWD guidelines and standards in this SMP are usually discussed. Site conditions are recorded, and the general agreement conditions are explained. The most suitable site may be staked for the boundary line survey.

The applicant is advised to complete a Shoreline Lease and Use Agreement application and submit a set of appropriate plans and specifications for the facility. If the applicant's request includes construction of a boat dock, a list of authorized boat dock builders approved for construction of boat docks on the Lake will be provided to the applicant. If the on-site meeting reveals the site is not conducive to the requested activity or facility, the applicant is so advised, and no further action is taken. This does not preclude the applicant from modifying their request to correct the item cited for denial.

At the site visit, NTMWD will also advise the applicant about the risks inherent in constructing facilities or improvements along a shoreline with fluctuating water levels. Any facilities or improvements placed on or over NTMWD-owned property may be flooded or left out of the water at any time. The risks associated with the hazards of lake level fluctuations include lake level fluctuations resulting in the improvements being completely unusable during flood or drought conditions, which can extend over months or even years. Fluctuating water levels or extended periods of high or low water may result in the destruction of or damage to improvements and property stored on NTMWD-owned property. NTMWD is not responsible for any loss or damage to any turf, landscaping, personal property, structure, or improvement located within NTMWD-owned property or flowage easements. In addition, the flooding and impoundment of water on and over the shoreline and flowage easements may deposit silt, debris, and trash. NTMWD is not responsible for any cleanup or removal of any such silt, trash, or debris resulting from any such events or otherwise.

6.4 Boundary Line Survey

As described in Section 4.2.5, the NTMWD boundary line along the 541 feet MSL and the 534 MSL contour line must be surveyed by a State licensed land surveyor prior to approval of a Shoreline Lease and Use Agreement. Boundary line surveys are at the applicant's expense. Marking and survey requirements are described in Section 4.2.5. The surveyor's map depicting the survey result and electronic data are included with the shoreline use application.

Other types of agreements (e.g., special event/temporary use agreement) may not require a boundary line survey or marking at the discretion of NTMWD.

6.5 Application Review

When the application form and all necessary supporting documents have been submitted to NTMWD, NTMWD will review the materials for consistency with the guidelines, standards requirements of this SMP. The application fee must be submitted with the application form. Information required for private boat dock applications is described in Section 5.1.2. The standards for improvements and application submittal requirements are described in

Appendix F.

If NTMWD requires additional information or the application is incomplete, NTMWD will notify the applicant of the required materials in writing through MGO Connect. This initial review and request for additional information should be provided to the applicants within 30 days of the submittal. However, review and approval of a complete application, including preparation of draft agreement documents, may take longer. Submittals will be closely reviewed for completeness and accuracy to ensure the proposed activity or facility will be of the proper size, be built with safe building materials, be in compliance with the National Electrical Code, meet proper structural standards, and meet the guidelines established in this SMP, including the standards outlined in **Appendix F**.

6.6 Draft Agreement

NTMWD staff will prepare a draft agreement that includes all applicable general conditions, project-specific conditions, and/or exemptions necessary for the project. This draft agreement is discussed with the applicant in an in-person meeting to ensure that all of the parties understand the conditions. Agreement templates with general conditions are provided in **Appendix C**. Once the draft agreement is completed, it is signed by the applicant and a NTMWD representative. A construction sign will then be issued to the lessee by NTMWD that displays the Agreement Number, Type of Agreement, Date, and contact information.

The approval will include a specified amount of time within which construction must be accomplished. Generally, construction must be completed within 1 year, but the applicant may apply for extensions.

6.7 Post-construction Inspection

NTMWD will schedule a post-construction inspection once the facility is complete to ensure compliance with the Shoreline Lease and Use Agreement. If a deficiency is found, the applicant will be advised of what needs to be corrected and a re-inspection will be scheduled.

A Certificate of Compliance will be issued upon a satisfactory post-construction inspection and will establish the term and expiration date for the renewal process. A Record of Agreement will be signed by NTMWD and the applicant(s) and will be filed by NTMWD in the official Fannin County records. NTMWD will provide the applicant with authorization tags to display on the authorized facility or activity area (e.g., vegetation modification area).

Any facility that fails the post-construction inspection(s) and is not adequately corrected in a timely manner will be removed by the applicant and the disturbed area returned to pre-construction conditions.

Vegetation modification activities generally do not require this post-inspection step, but the area will be monitored during inspections as described below.

6.8 Authorization Tags

As described in Section 4.2.7, the applicant is responsible for placing authorization tags on the approved facility in compliance with the agreement. These tags will be inspected periodically to ensure that they remain visible and properly affixed. If tags are not displayed in compliance with the agreement, the applicant may be subject to a fine, as provided in **Appendix E**.

6.9 Annual Inspection

NTMWD will conduct annual inspections to ensure continued compliance with agreement conditions. Additional inspections may be conducted at any time. Additional information on monitoring, inspection, and enforcement is found in Section 7.

6.10 Renewal, Transfer, Revocation

At the end of the 5-year term, the agreement may be renewed by the signatory to the agreement. Renewals are subject to payment of a renewal fee and an inspection. Agreement renewals follow an abbreviated process involving an application, site visit, review of the existing agreement and conditions, and issuance of a new agreement for signature. Information specific to applications for the renewal of private boat dock authorizations is described in Section 5.1.3.

Upon renewal, agreement terms and conditions may be changed to reflect changes in NTMWD guidelines and requirements or updates to the SMP. NTMWD staff will review any changes with the applicant to ensure that the changes are understood before the agreement is finalized.

Agreements, authorizations, or leases cannot be transferred from one private party to another. If the signatories to an agreement no longer own the property (through sale, property transfer, death, or other circumstances), the agreement, authorization, or lease terminates immediately upon the change of ownership and it is incumbent upon the new property owner(s) to contact NTMWD and apply for reissuance of the agreement to the new owner(s). If a new agreement is not obtained, or if the agreement cannot be reissued (e.g., because of violations), all previously authorized facilities and activities must be removed and discontinued within 30 days.

At any point, the agreement can be cancelled for noncompliance. Enforcement procedures including inspections, notifications, and fines are described in Section 7.

6.11 Appeals

If an application for a Shoreline Lease and Use Agreement is denied or special conditions are added that are not acceptable to the applicant, the applicant may appeal the decision through MGO Connect or in writing. The applicant must submit an appeal of the decision to NTMWD within 15 days of receiving a notice of denial. The appeal must include the reason for the appeal, a description of why the proposed use conforms to the SMP and any other relevant NTMWD guidelines or policies, and the payment of the appropriate appeal fee. Standard conditions of the use agreements, as found in **Appendix C**, may not be appealed. A general form for appeals is included in **Appendix C-8**.

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Section 7

Unauthorized Activities and Violations

7.1 Unauthorized Activities

Bois d'Arc Lake was built to provide a safe and reliable supply of drinking water for NTMWD customers and Fannin County residents. Activities on the shoreline have the potential to affect water quality. NTMWD prohibits activities that can affect the water quality of the Lake. The following sections describe the more common types of unauthorized activities. However, this is not intended to be an exhaustive list and only activities and uses authorized through a Shoreline Lease and Use Agreement, contract, lease, or other type of legal approval are allowed on NTMWD-owned property.

7.1.1 Placement of Personal Property on NTMWD-Owned Property

Personal property is not to be placed or stored on NTMWD-owned property. This includes, but is not limited to, sheds, furniture, outdoor decor, swing sets, birdbaths, firewood, boats, lights and lighting, hunting stands, game feeders, hammocks, fire pits, fencing, or trailers.

7.1.2 Storage or Placement of Hazardous Materials on Docks or NTMWD-Owned Property

Fuel, oil, treated landscape timbers, treated wood, pesticides, herbicides, and other hazardous materials are not to be placed or stored on docks or on NTMWD-owned property.

7.1.3 Shoreline Tie-Up of Vessels

Temporary shoreline tie-up is defined as the intermittent moorage of private watercraft along the shoreline during a period of recreational activity, not to exceed 24 hours of non-use. All vessels shall be removed from NTMWD-owned property if not in use. Habitation is not allowed on NTMWD-owned property or over waters, including habitation on watercraft. Watercraft owners needing permanent moorage of vessels are encouraged to contact a local marina or apply for a Shoreline Lease and Use Agreement if they own adjacent private property.

7.1.4 Additional Unauthorized Uses of Boat Docks

Other unauthorized uses of docks include storing or mooring vessels owned by someone other than the agreement holder at an authorized boat dock; renting, leasing, or subletting the boat dock; conducting commercial activities on the boat dock; or prohibiting public use of the waters adjacent to the boat dock.

7.1.5 Irrigation Pumps

The use of irrigation pumps is strictly prohibited. The pumping of water from Bois d'Arc Lake for any land-based use is prohibited, including but not limited to water features, ponds, or landscape maintenance. A recirculating pump may be placed on an authorized dock for use in cleaning fish and performing dock and boat maintenance activities. Pumps used for irrigation purposes are not

allowed and hose connections may not be extended from the lake to the shoreline for any purpose.

7.1.6 Burning

In general, no burning of any kind is allowed on NTMWD-owned property. Any burning must be performed on private property and in accordance to applicable state and local laws. State laws concerning outdoor burning can be found at: <https://www.tceq.texas.gov/assistance/air/odb>. In special circumstances, for instance after a flood event, authorization for limited burning of debris may be approved by NTMWD. Under no circumstances will chemical fire starters or accelerants be allowed.

7.1.7 Use of Motorized Vehicles

The use of motorized vehicles of any type is prohibited on NTMWD-owned property, except as specifically authorized through a special event/temporary use agreement or a mobility assistance vehicle agreement.

This SMP allows for the occasional use of motorized vehicles for facility construction and maintenance activities. However, if erosion problems develop as a result of motorized vehicle use (see **Section 7.1.10**), the activity must be stopped immediately and the area returned to its previous condition. Persistent and recurring issues regarding the use of motorized vehicles may result in fines and/or agreement revocation.

7.1.8 Unauthorized Dock Construction

No dock structure or dock modification shall occur without authorization through a Shoreline Lease and Use Agreement. Dock construction must adhere to plans approved through the Shoreline Lease and Use Agreement process and conform to the standards found in this SMP. Deviations from approved construction plans, such as the use of unauthorized construction materials or anchoring methods or the failure to complete construction within 1 year, is considered a violation of the Shoreline Lease and Use Agreement.

7.1.9 Use of Pesticides and Fertilizers

The use of pesticides and fertilizers on NTMWD-owned property and/or in the water is prohibited. Herbicides may be used if authorized through a Natural Resource Management Notification (see **Appendix C-3**) and in accordance with TPWD regulations for aquatic vegetation removal and Texas Department of Agriculture regulations for pesticide use and application.

7.1.10 Activities Contributing to Erosion

Erosion is the loss of soil from the action of wind, water, and other forces. Although erosion is a natural occurrence, it can be exacerbated by human actions. Vegetation stabilizes the soil and protects it from the action of wind and water. Activities that affect vegetation are often responsible for erosion problems. Large boats can create waves that have more energy than wind-generated waves. It is expected that the filling of the reservoir may result in erosion as the new shoreline works to reach equilibrium. Common signs of unnatural or accelerated erosion include:

- Noticeable shoreline recession (measured from an immovable object, such as a boulder or tree)
- Increased sedimentation (the deposition of eroded materials into water bodies) that can cause a visible color change and increased cloudiness of the water
- Loss of vegetation along the shoreline, including exposed plant roots, loss of woody vegetation that holds the soil, and conversion of vegetation communities from native plant communities to exotic landscape plants, turf grass, or invasive weeds
- Exposure of large bare shoreline areas or unstable banks
- Scour, rills, and signs of water becoming concentrated into new channels flowing off the land into the Lake
- Excessive weed and algae growth
- Decrease in habitat for fish and other aquatic life from sedimentation/erosion

Persons using NTMWD-owned property along the shoreline must not engage in activities that create erosion problems. Certain authorized activities, such as boat dock placement, vegetation removal, footpath construction and maintenance, and the use of motorized vehicles, have a higher potential to contribute to erosion. NTMWD will monitor for signs of erosion. If erosion occurs, NTMWD will evaluate the causes and take appropriate action as outlined under Section 7.2.

7.1.11 Violations

Violations occur when the agreement holder is not in compliance with the terms of their agreement, terms of the flowage easement, other laws and regulations, or Fannin County zoning laws, or when any of the previously described unauthorized activities is conducted on NTMWD-owned property. Violations also occur when an agreement holder fails to do any of the following: renew an agreement within the time limit, pay fees, display authorization tags on facilities, maintain boundary line markers, or restore the use area after completion of an authorized activity or after the area has been damaged. Violations include the failure of a new adjacent landowner to apply for a Shoreline Lease and Use Agreement for existing uses within 30 days of the date of ownership transfer or failure to restore the activity area within 60 days from the date of ownership transfer.

7.2 Enforcement

7.2.1 Authority

NTMWD owns the land at Bois d'Arc Lake below 541 feet MSL in fee simple title. Under contract law, NTMWD may authorize private uses on NTMWD-owned property subject to a mutual agreement. Agreements between adjacent landowners or other entities and NTMWD are legally binding contracts between NTMWD and the applicant. The agreement conditions specify acceptable methods and conditions under which the authorized activity may be conducted. If the applicant fails to fulfill the responsibilities outlined in a legal contract, the applicant may be held liable for a breach of contract and may need to compensate NTMWD for damages as outlined in the contract. A breach may also lead to contract termination.

7.2.2 Monitoring

NTMWD will monitor the shoreline multiple times a year. Monitoring activities consist of driving or boating around Bois d'Arc Lake to observe new development, authorized activities, potential violations that may need further inspection, and emerging issues such as changes in the shoreline, evidence of erosion, net changes in vegetation and impervious surfaces around the Lake, and water quality concerns (e.g., algal blooms, increased turbidity). NTMWD staff will take photos and note observations to document potential agreement or SMP violations.

NTMWD will work collaboratively with Fannin County, to monitor development adjacent to NTMWD-owned property. NTMWD may choose to collect lake-wide information to assess changes in the context and setting of the lake as surrounding private lands develop to inform future SMP updates.

7.2.3 Inspection

Inspections will be conducted when potential issues are noted through monitoring, although some types of facilities may benefit from more regular inspections. Agreement conditions allow NTMWD to conduct inspections of authorized activities and facilities including private docks. Authorized boat docks (both private individually owned and private community docks) will be inspected periodically. NTMWD will conduct more frequent inspections of marinas and other commercial operations to ensure the facility is being operated in a safe and clean manner in conformance with the terms and conditions of the marina or commercial contract. Inspections may also be conducted if a complaint is submitted regarding an authorized facility or activity. If deficiencies are found during an inspection, a follow-up inspection would be required to document that corrective action has been taken. Inspections involving access to boat docks will be made as specified in the agreement.

7.2.4 Violations – Notice and Resolution

Once a violation is identified, the violator will have to correct the violation within a certain timeframe to avoid fines and additional penalties. Resolution timeframes and fines depend on the harm that may occur to people, property, and resources if the violation were to continue. NTMWD categorizes resolution timeframes and fines based on the severity of the violation (e.g., major, moderate, and minor). Violations that are hazardous, or potentially hazardous, are categorized as “major” and generally have shorter resolution timeframes and higher penalties than moderate or minor violations. Violations that are administrative in nature are generally categorized as “minor.” Moderate violations include actions that are slightly more severe than minor violations, but that do not pose an immediate health or safety threat. See **Appendix E** for violation types, correction timeframes, and penalties for noncompliance.

Owners of authorized facilities and parties to agreements and authorizations issued by NTMWD are responsible to meet the conditions of the agreement or authorization. Penalties for violations will be included in the agreements, leases, and contracts in writing. Agreements will also include terms that specify what remedies may be taken by either party if the terms are not complied with, including timelines for notice and compliance, termination, fines and liens, and other remedies as may be appropriate. See **Appendix E** for an overview of remedies and penalties for common SMP violations.

NTMWD will likely discover the majority of agreement violations through monitoring and inspection activities. NTMWD will follow the process outlined below if a violation for any agreement is identified.

First Notice: NTMWD will issue a written warning notifying the parties to the agreement of the violation, outlining actions to correct the violation, and providing a resolution timeframe. Unauthorized activities such as burning and use of pesticides and fertilizers on NTMWD-owned property require immediate action and hold an associated fine. Depending on the noncompliance issue, the time provided for resolution and the degree to which NTMWD may step in and proactively correct an issue will vary. For example, noncompliance that may result in health or safety concerns would have a shorter time in which to correct the issue and come back into compliance. NTMWD will follow up within the specified timeframe to document resolution of the issue. Increased frequency of monitoring and inspection may be warranted for a period of time following resolution.

Second Notice: A second notice may involve the same activity or condition as the first notice, or it may be a new issue. Agreement holders will reimburse NTMWD for costs associated with inspection and follow-up for second notice actions.

Third Notice: Three notices for the same or different instances of noncompliance with the agreement terms and conditions within 1 year will trigger a notice to revoke or terminate the agreement. The agreement holder will have 30 days to remove the facility at his or her expense and restore the land and water to their pre-existing conditions (if applicable).

7.2.5 Appeals

The agreement holder may appeal a notice of revocation of the agreement to NTMWD in writing within 15 days of receiving the notice. The written appeal should include either a plan for bringing the use into compliance with the terms of the agreement or the legal basis for why the agreement holder does not believe the agreement should have been revoked. The written appeal should also include the payment of the appropriate appeal fee. A general appeal form is included in **Appendix C**.

7.2.6 Fines

See **Appendix E** for fines associated with various agreement violations. NTMWD may alter the fines for violations at any time. Schedules for fees and fines will be reviewed at each annual review of the SMP. Fees and fine schedules are set by action of the Board of Directors. NTMWD may waive fines at its discretion.

7.3 Limitations

Whenever regulations or restrictions imposed by the SMP are either more or less restrictive than regulations or restrictions imposed by any governmental authority or other entity that might have authority to regulate docks, the regulations, rules, or restrictions that are more restrictive or which impose higher standards or requirements shall govern.

The NTMWD Board of Directors may suspend provisions of the SMP, or any portion thereof, whenever the Board determines that such suspension is in the public interest.

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Section 8

References

U.S. Bureau of Reclamation. 2011. *Water and Land Recreation Opportunity Spectrum (WALROS). Users' Handbook, Second Edition.* September 2011.

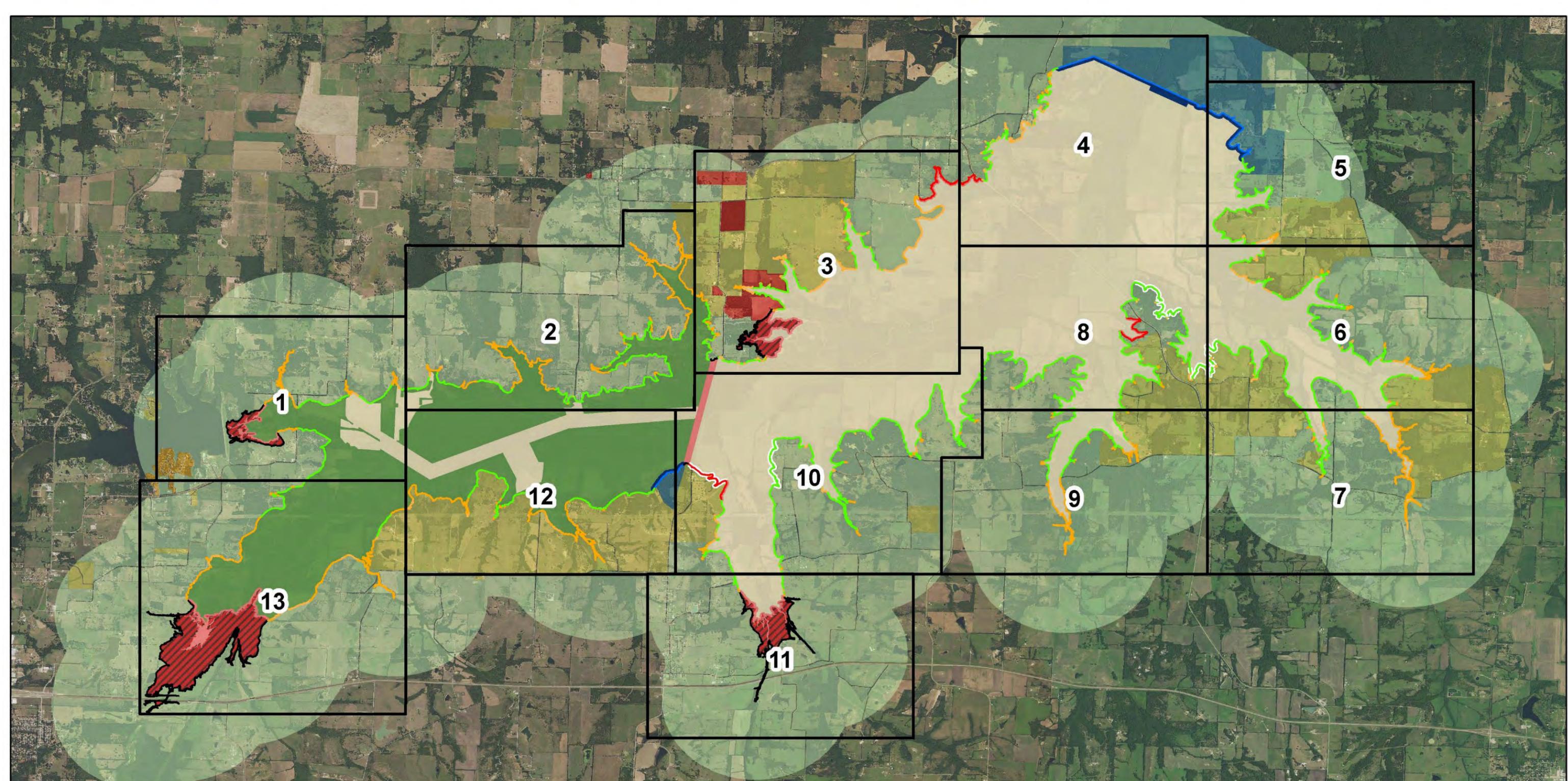
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Appendix A

Shoreline Classification Maps



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- Shoreline Classifications***
- Restricted
 - Environmentally Sensitive
 - Limited Development
 - Dock Capable Shoreline
 - Public Lake Access / Commercial Development
 - Marina Overlay Zone

- Current Land Use Zoning****
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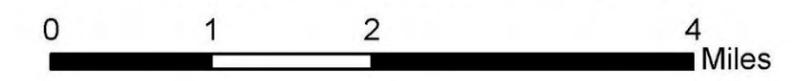
Shoreline and Surface Water Classifications

- Surface Water Zones**
- Open Recreation
 - Wildlife Management Area
 - Littoral Wetland
 - Restricted
 - No Wake

**Index Map
December 2023**

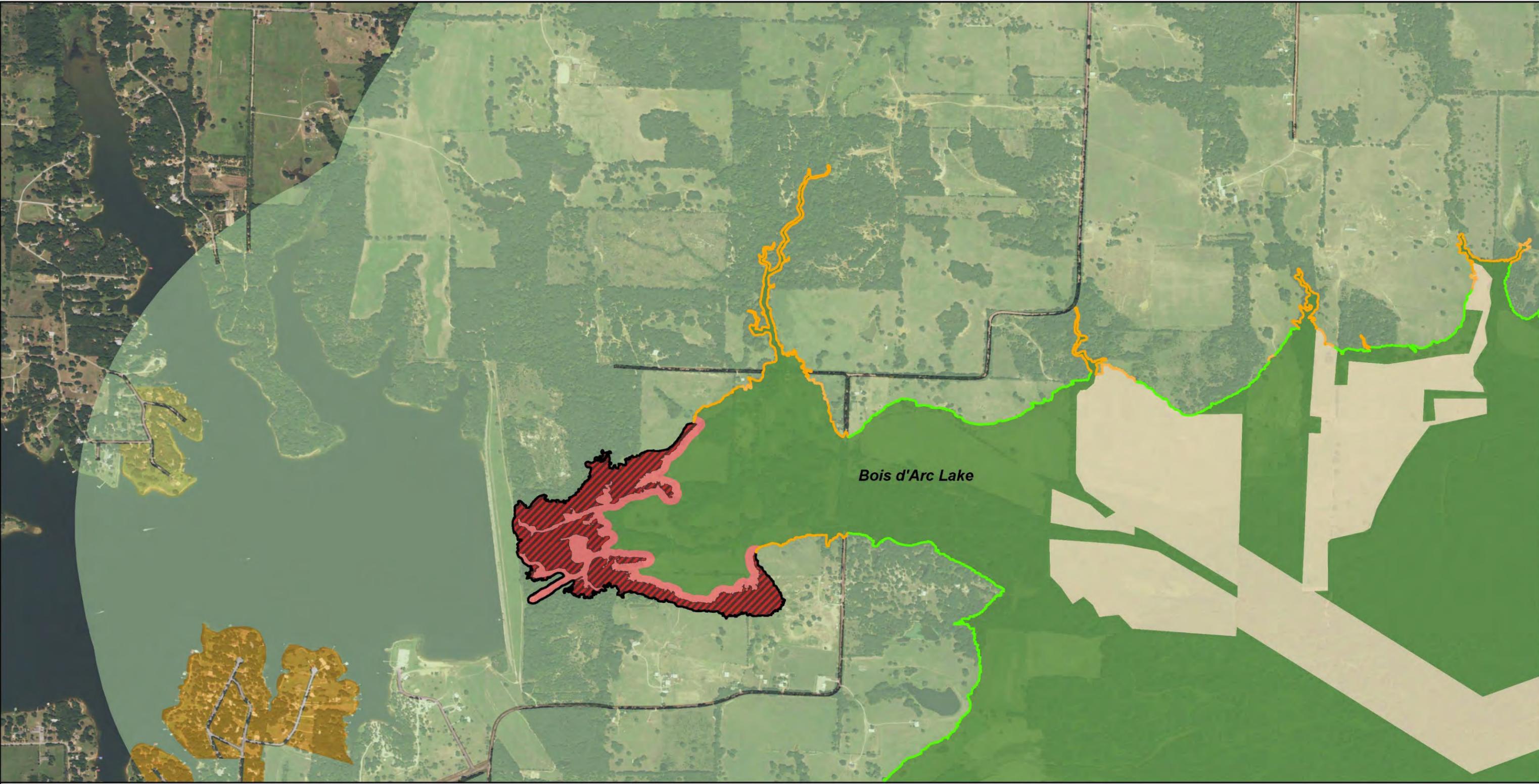


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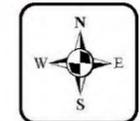
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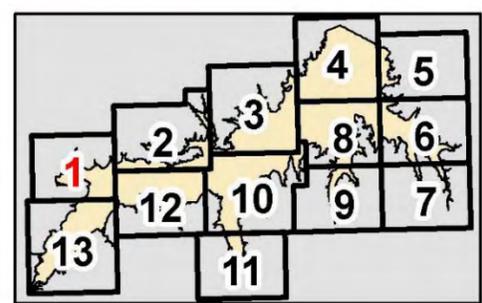
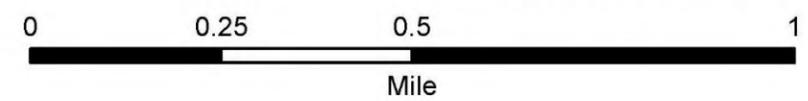
Figure 1

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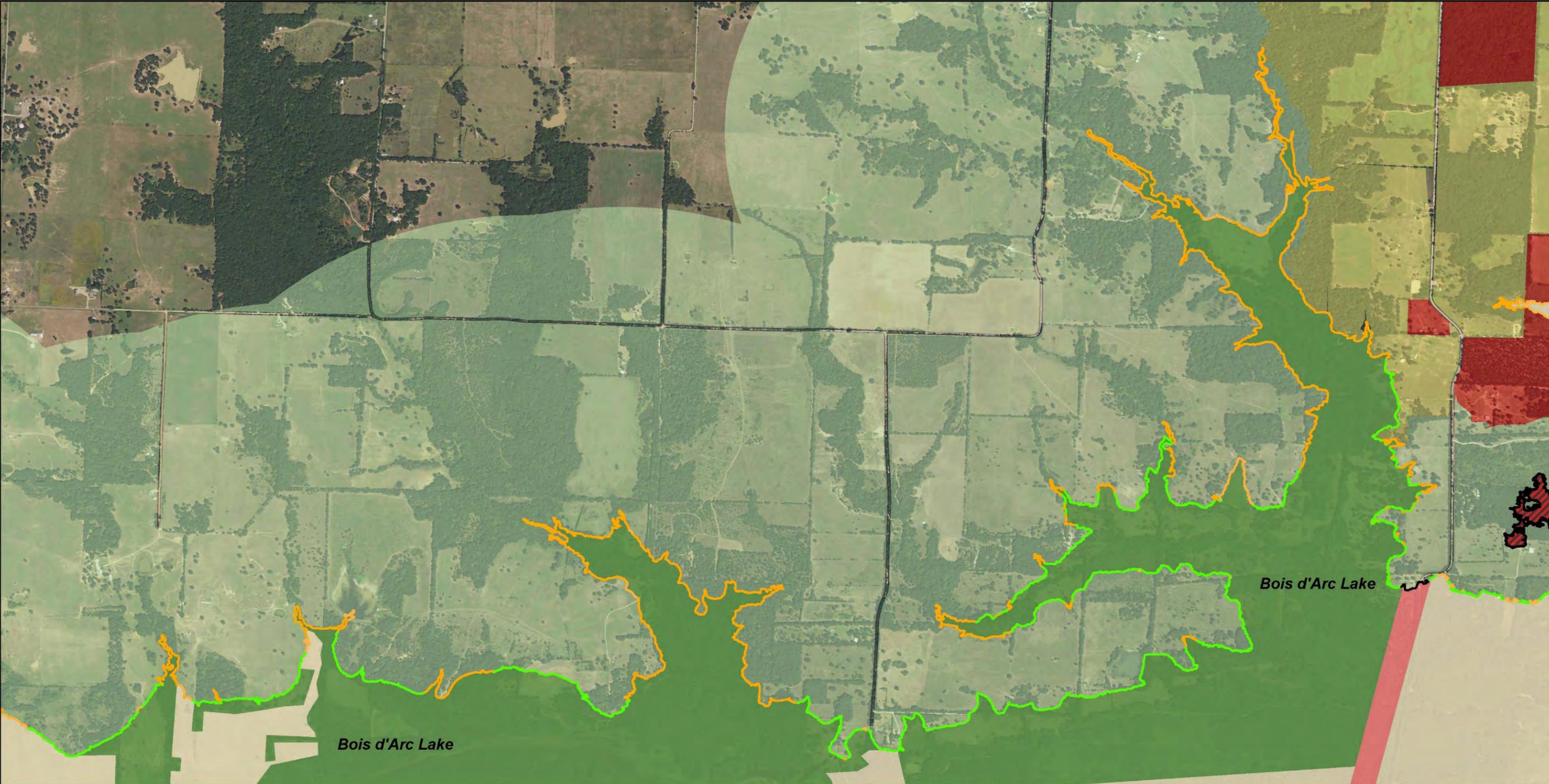
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Shoreline and Surface Water Classifications

Figure 2

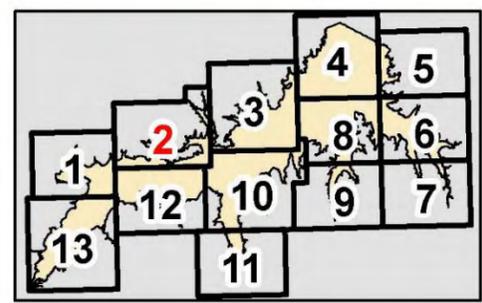
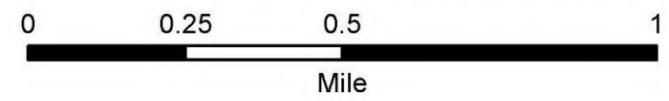
Surface Water Zones

■ Open Recreation	■ Wildlife Management Area
■ Littoral Wetland	■ Restricted
	■ No Wake

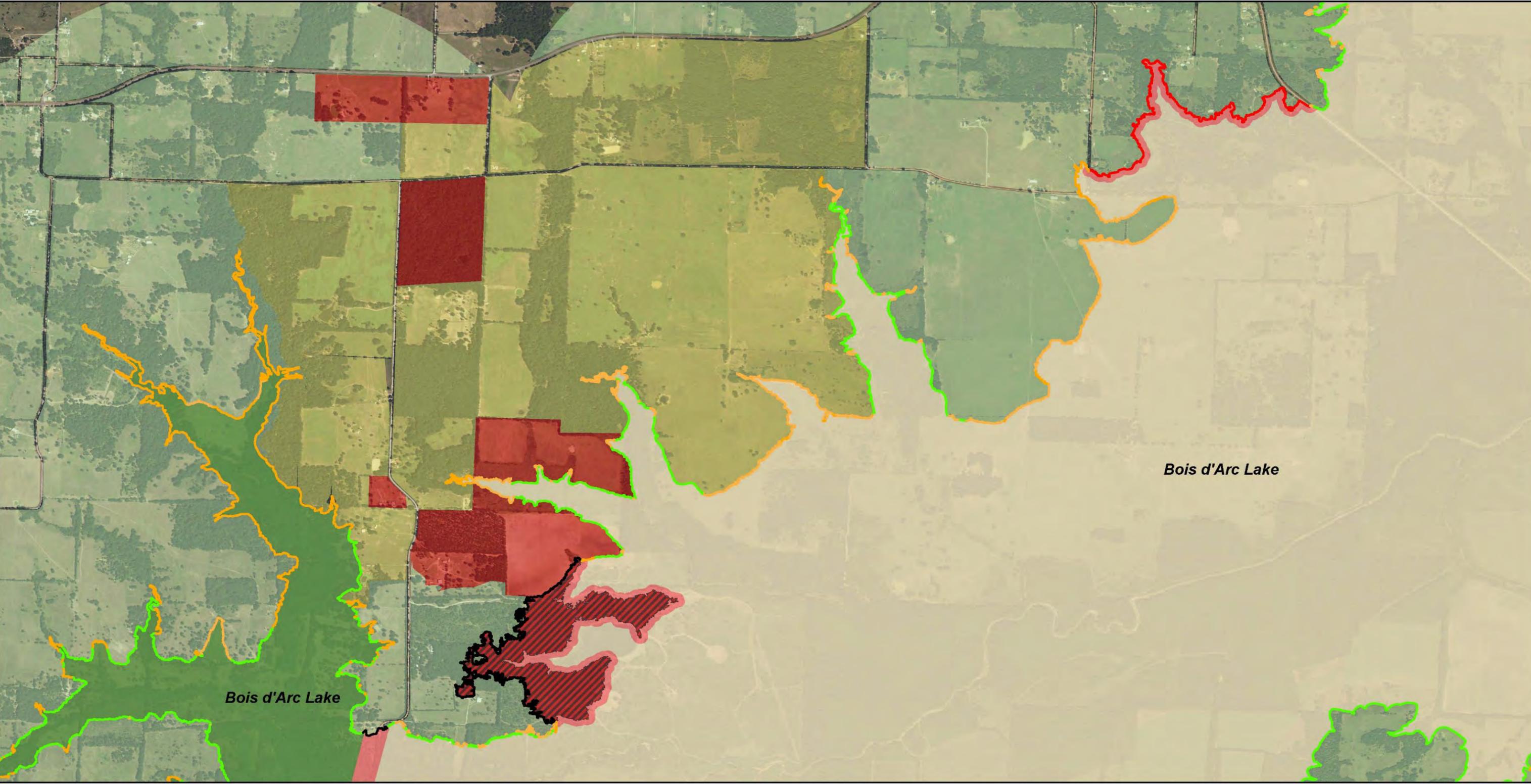
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Shoreline and Surface Water Classifications

Figure 3

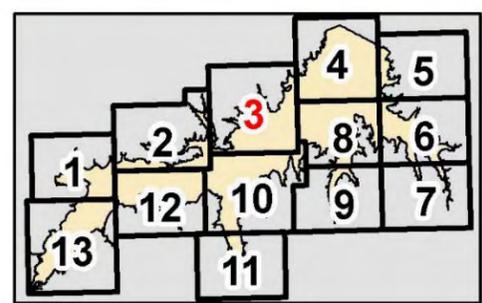
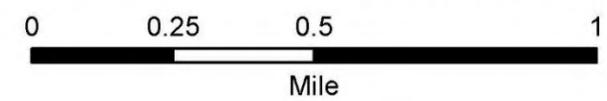
Surface Water Zones

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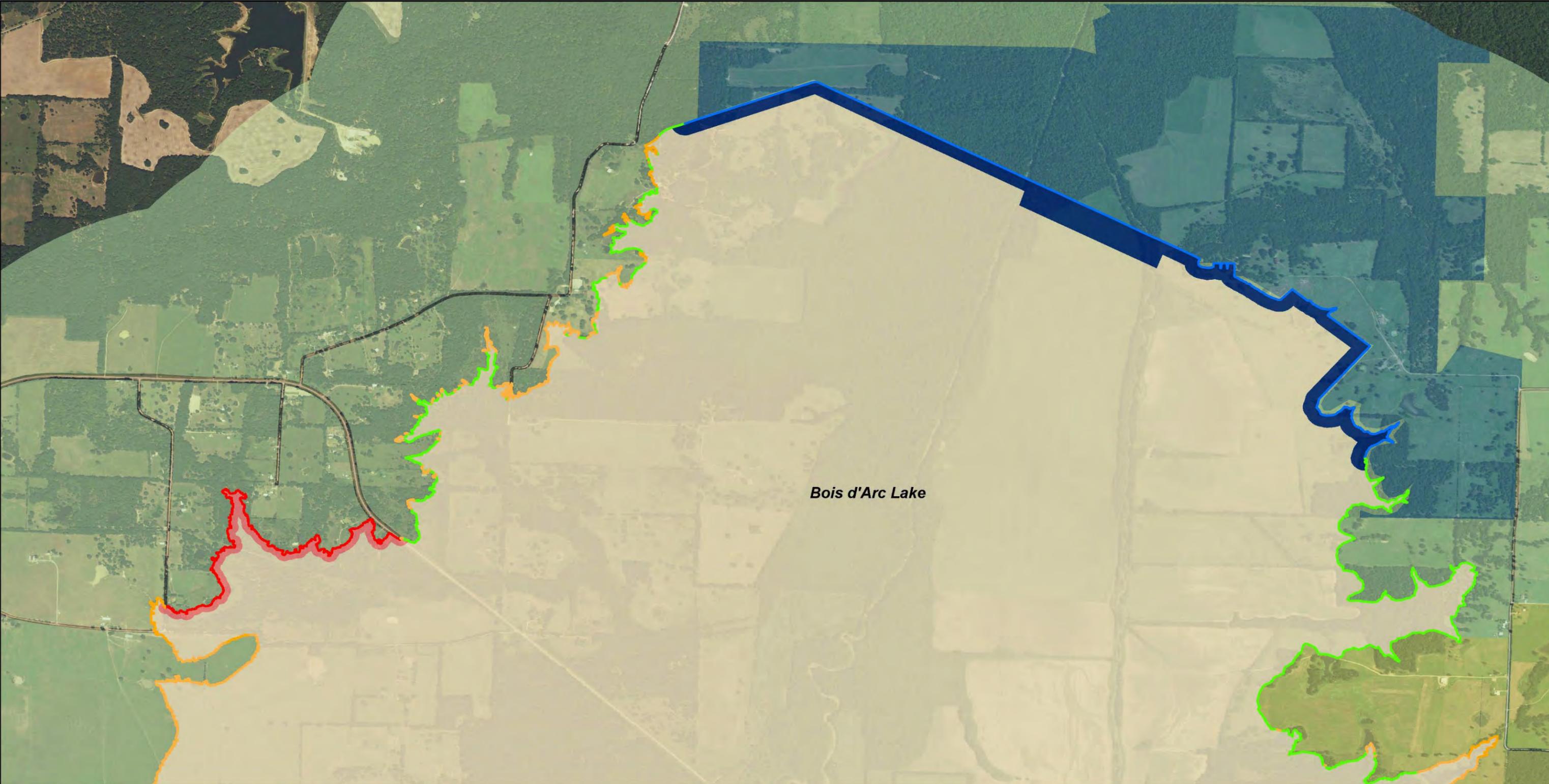
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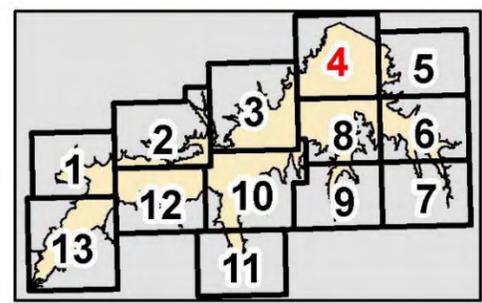
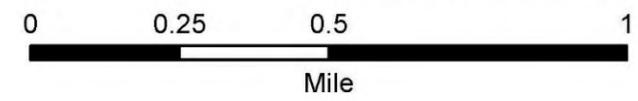
Figure 4

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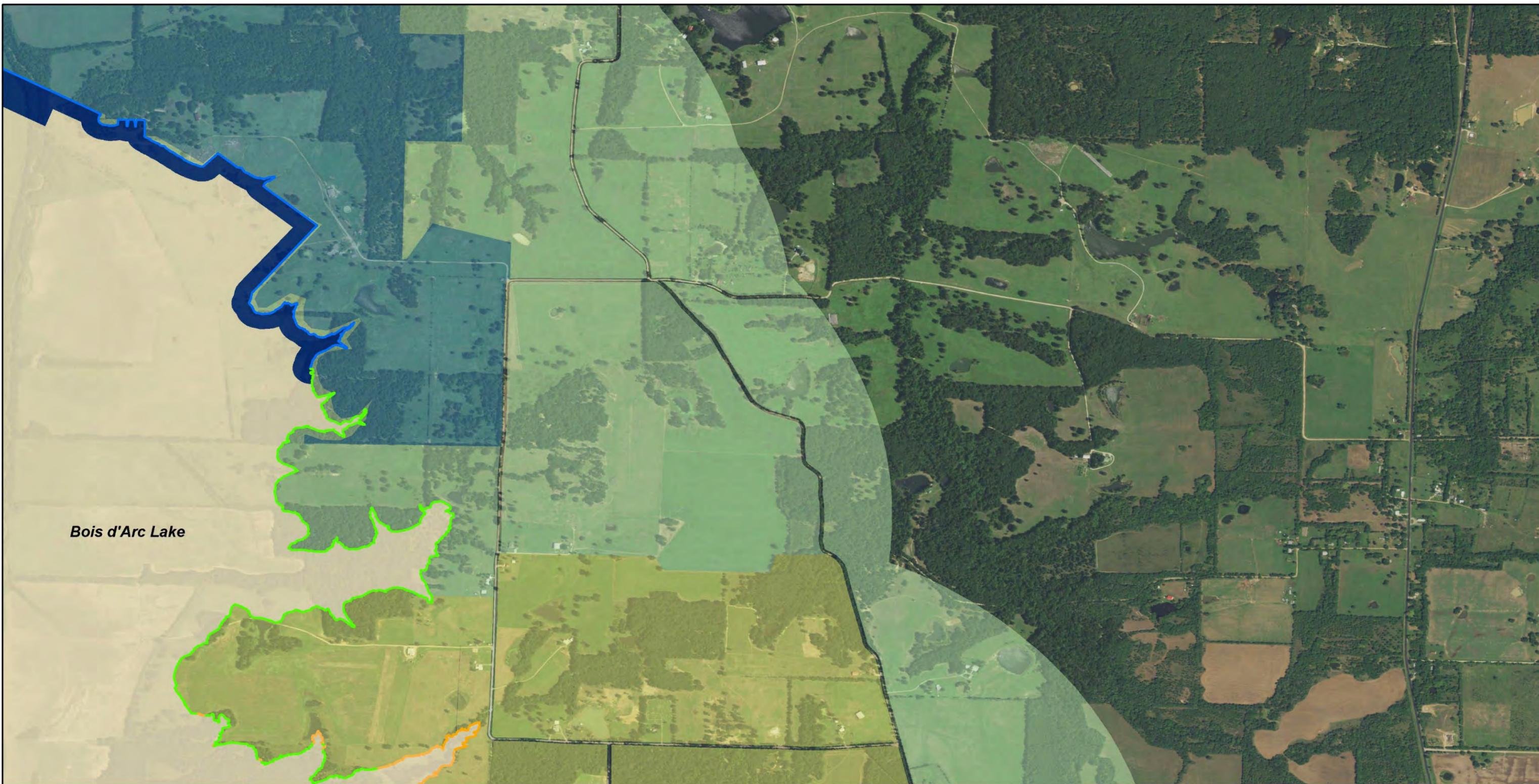
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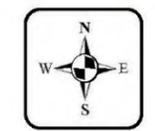
Shoreline and Surface Water Classifications

Figure 5

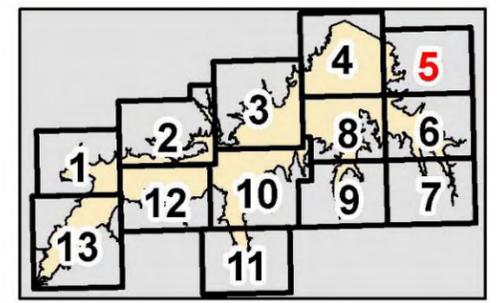
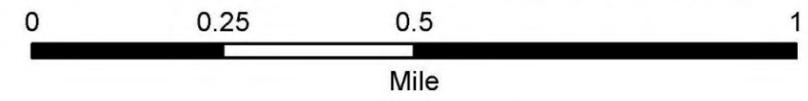
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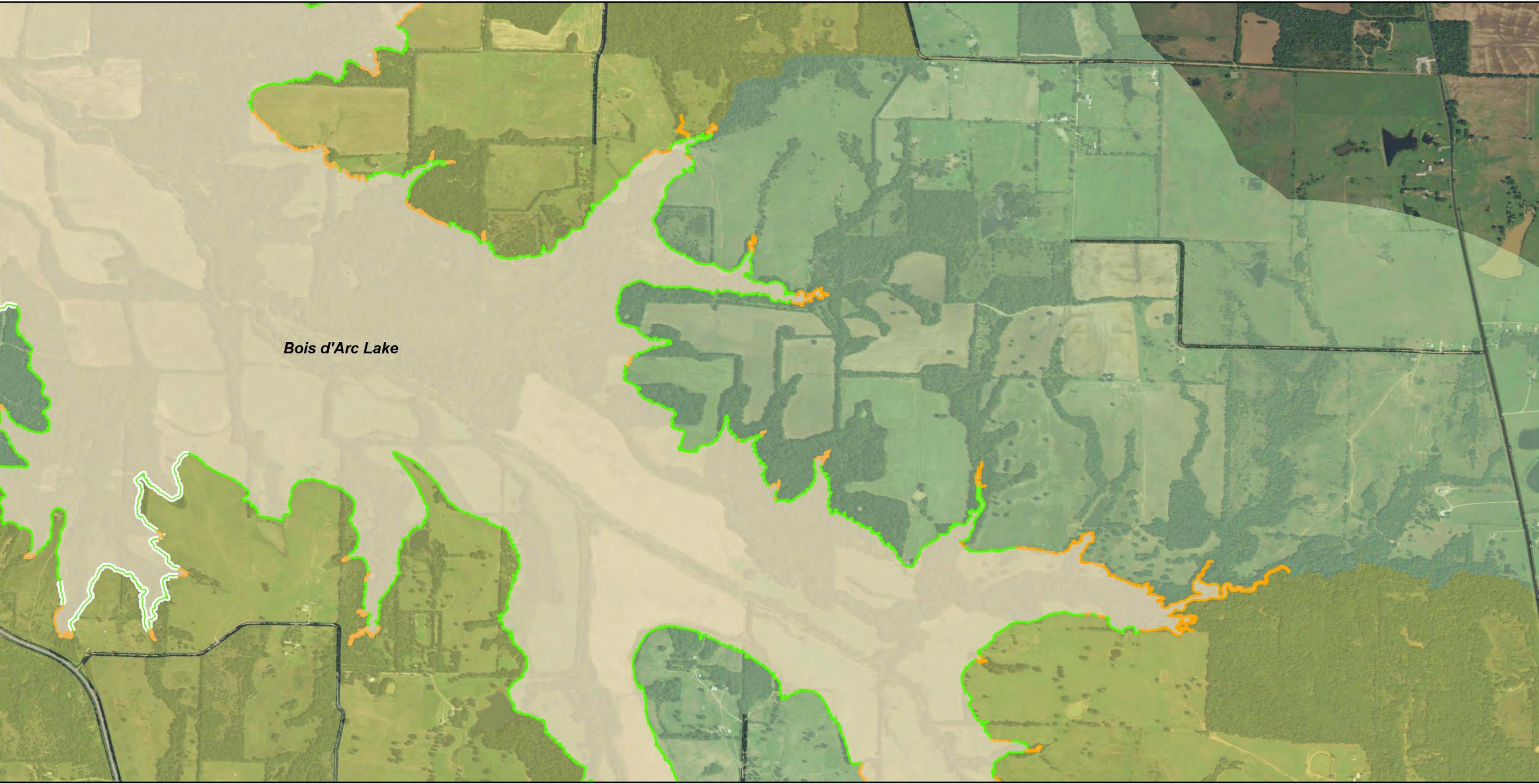
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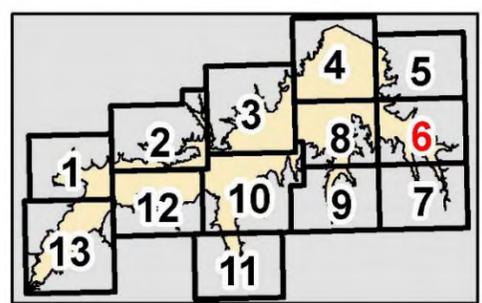
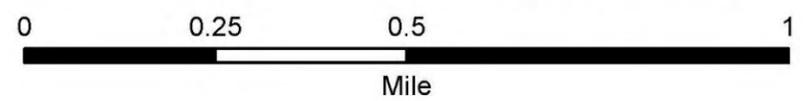
Figure 6

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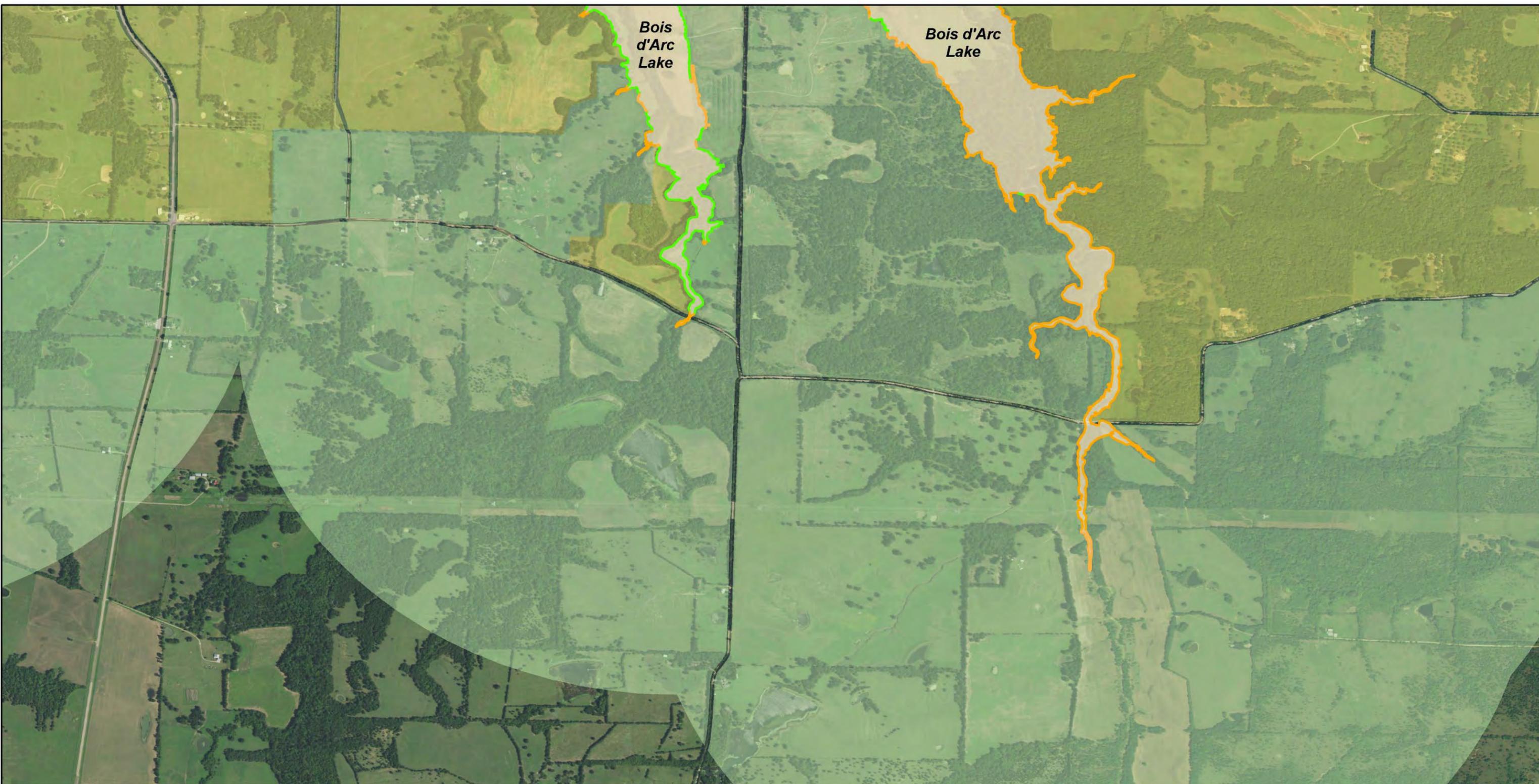


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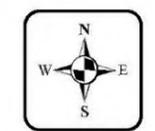
Shoreline and Surface Water Classifications

Figure 7

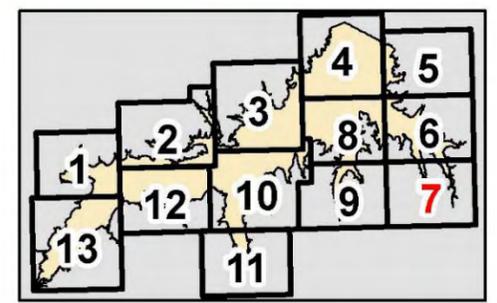
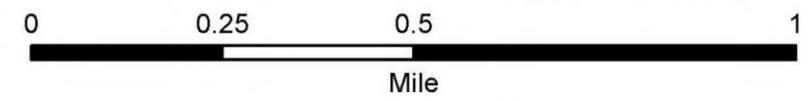
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 Open Recreation	 Wildlife Management Area
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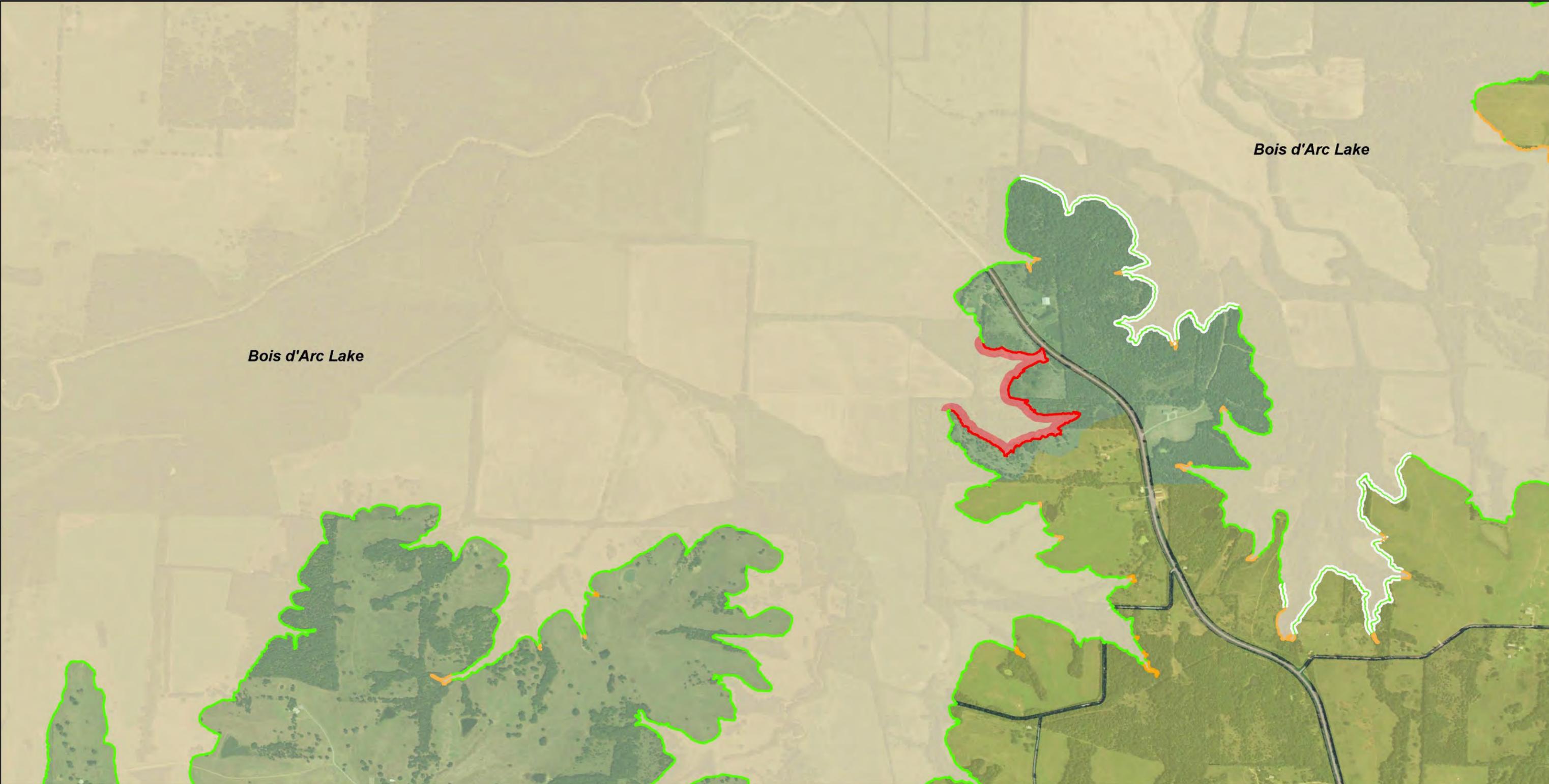
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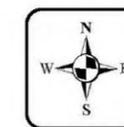
Shoreline and Surface Water Classifications

Figure 8

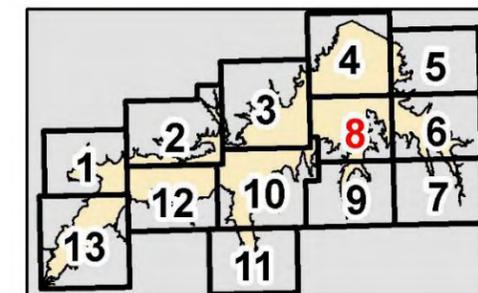
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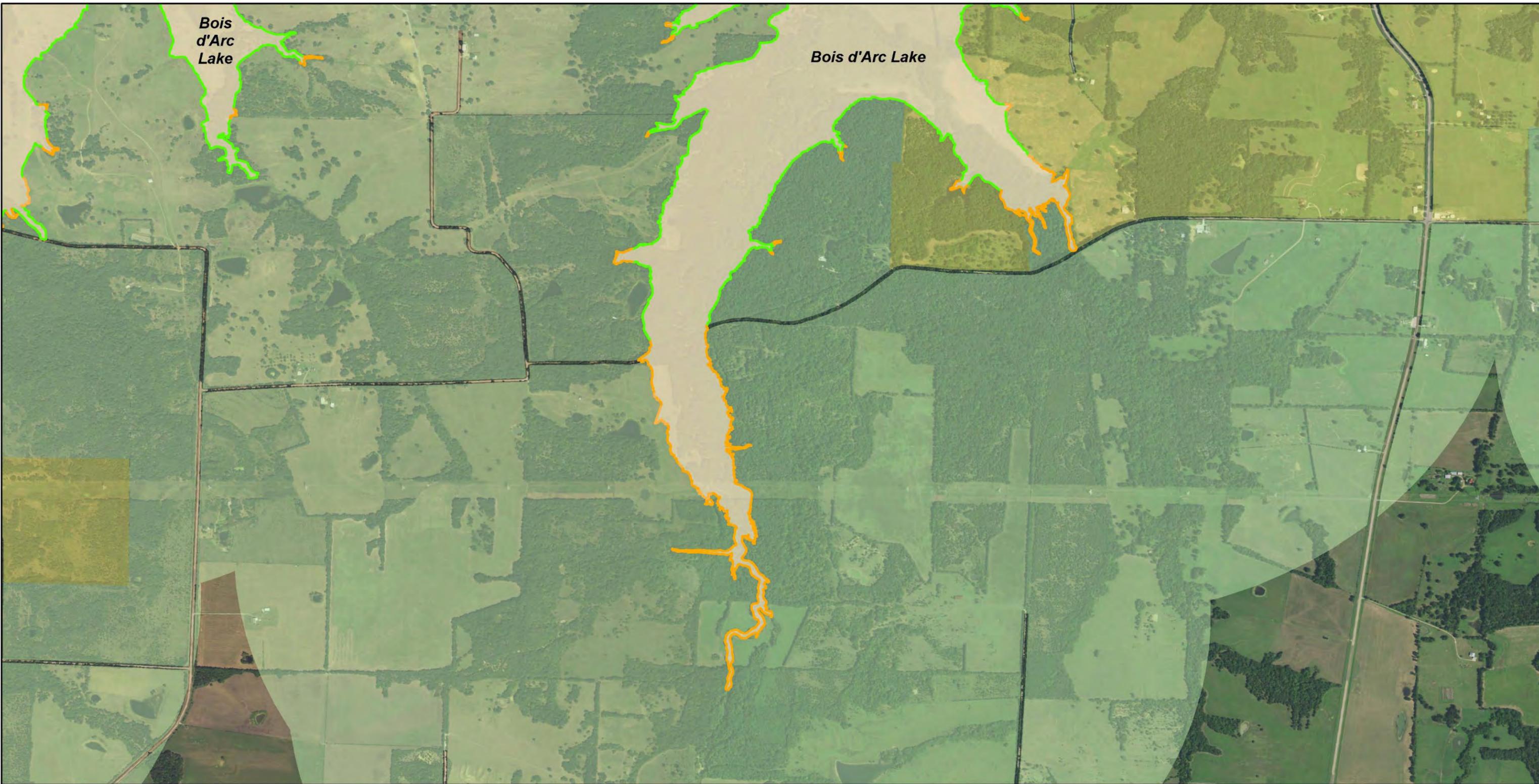


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Shoreline and Surface Water Classifications

Figure 9

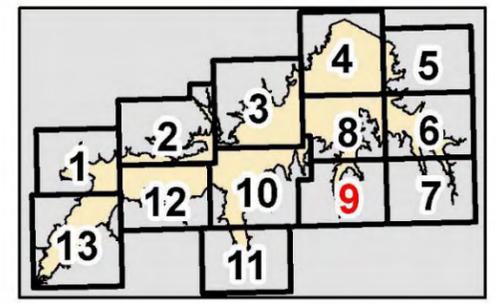
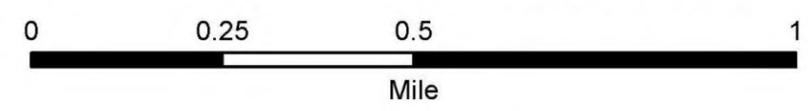
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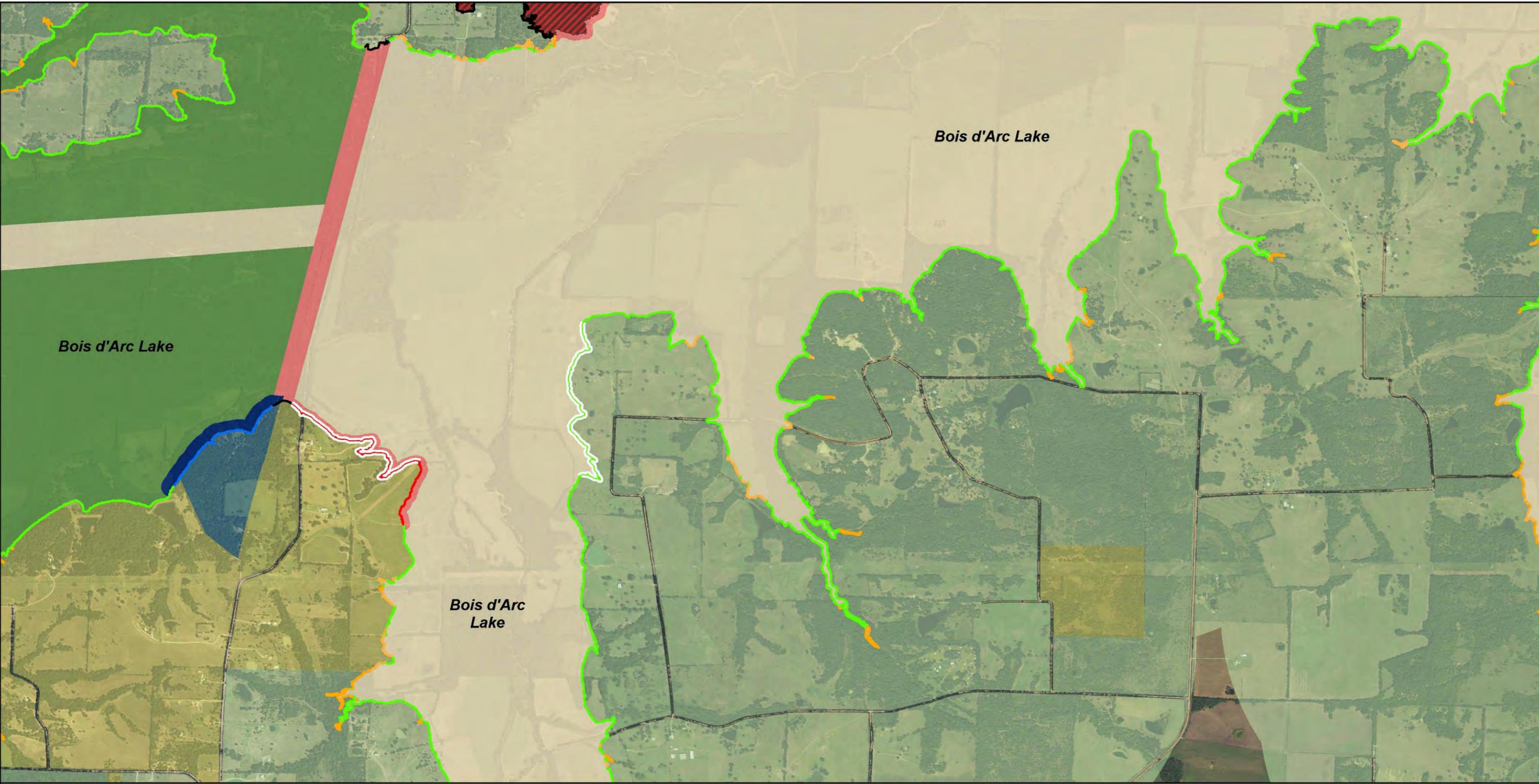
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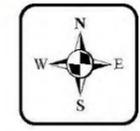
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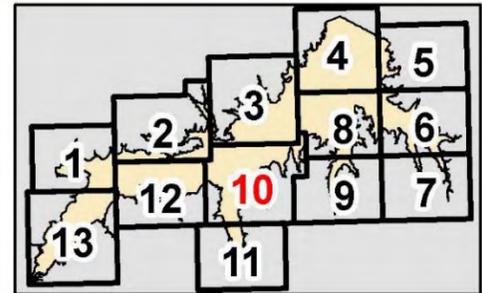
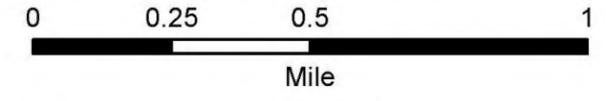
- Surface Water Zones**
- Open Recreation
 - Wildlife Management Area
 - Littoral Wetland
 - Restricted
 - No Wake

Shoreline and Surface Water Classifications

Figure 10



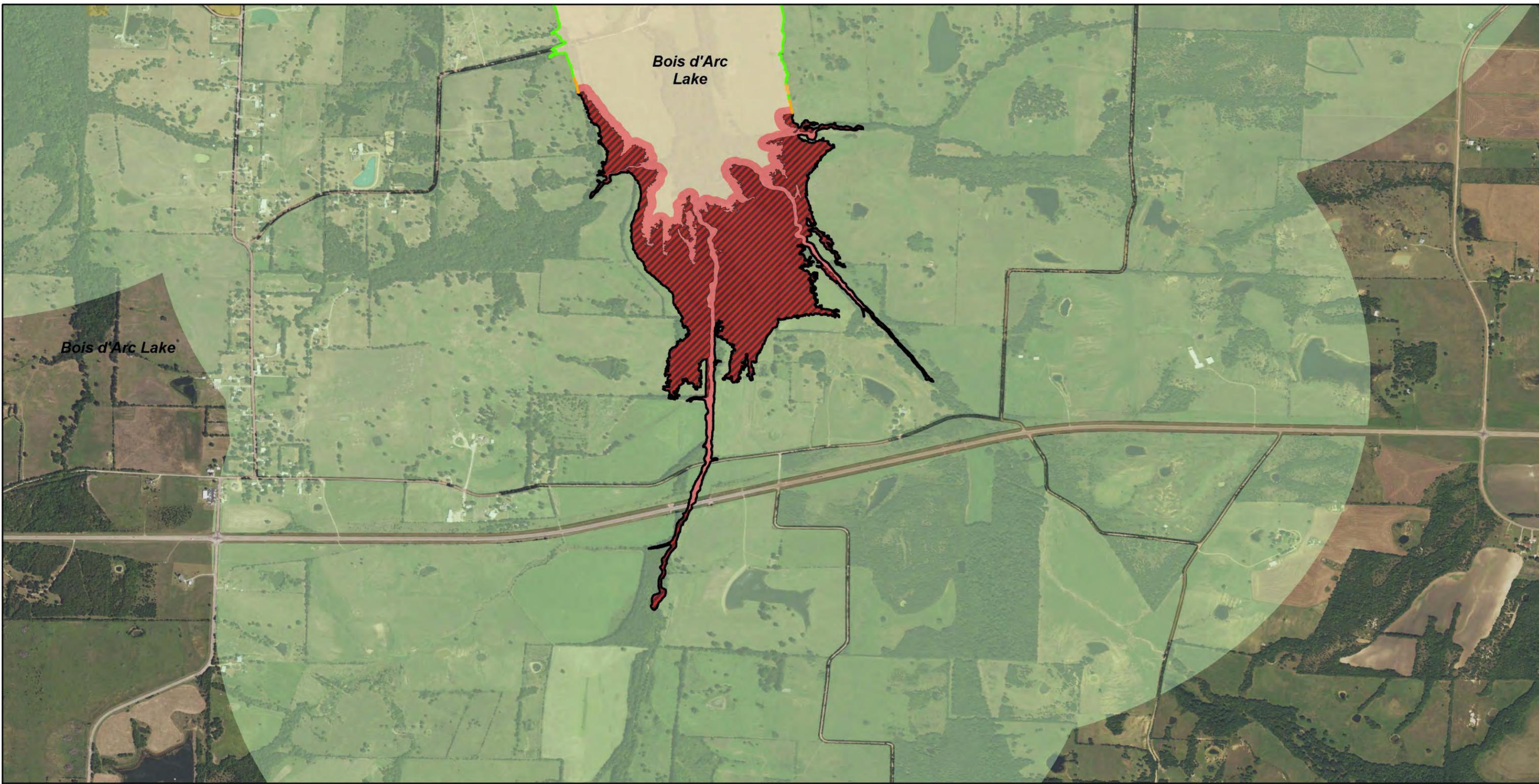
December 2023



The Operations Plan and the Buoy Marking Plan take precedence over the water surface zones shown in the SMP

For planning purposes only. NTMWD property generally extends up to the 541' MSL line. Please contact NTMWD for the official shoreline classifications and official property boundaries. All current land use zoning should be verified through Fannin County Development Services.

*Shoreline Classifications developed by NTMWD



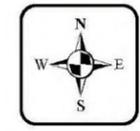
- Shoreline Classifications***
- Restricted
 - Environmentally Sensitive
 - Limited Development
 - Dock Capable Shoreline
 - Public Lake Access / Commercial Development
 - Marina Overlay Zone
- Current Land Use Zoning****
- Reservoir Operations
 - Agriculture / Open Space
 - Office/Retail/Commercial
 - Residential (small lots)
 - Residential (large lots)
- **Bois d'Arc Lake Land Use Zoning developed by Fannin County Adopted: October 30, 2018 Amended: August 4, 2022
- *Shoreline Classifications developed by NTMWD

Shoreline and Surface Water Classifications

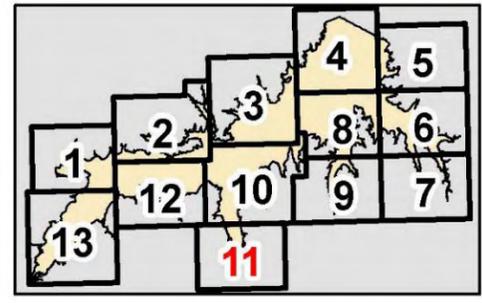
Figure 11

- Surface Water Zones**
- Open Recreation
 - Wildlife Management Area
 - Littoral Wetland
 - Restricted
 - No Wake

The Operations Plan and the Buoy Marking Plan take precedence over the water surface zones shown in the SMP



December 2023



For planning purposes only. NTMWD property generally extends up to the 541' MSL line. Please contact NTMWD for the official shoreline classifications and official property boundaries. All current land use zoning should be verified through Fannin County Development Services.



Shoreline Classifications*

- Restricted
- Environmentally Sensitive
- Limited Development
- Dock Capable Shoreline
- Public Lake Access / Commercial Development
- Marina Overlay Zone

Current Land Use Zoning**

- Reservoir Operations
- Agriculture / Open Space
- Office/Retail/Commercial
- Residential (small lots)
- Residential (large lots)

**Bois d'Arc Lake Land Use Zoning developed by Fannin County Adopted: October 30, 2018 Amended: August 4, 2022

*Shoreline Classifications developed by NTMWD

Shoreline and Surface Water Classifications

Figure 12

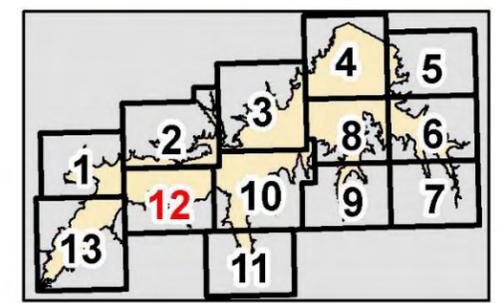
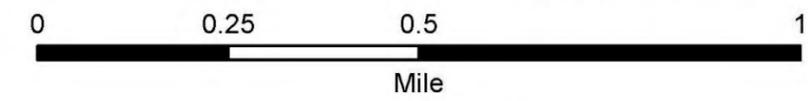
Surface Water Zones

Open Recreation	Wildlife Management Area
Littoral Wetland	Restricted
	No Wake

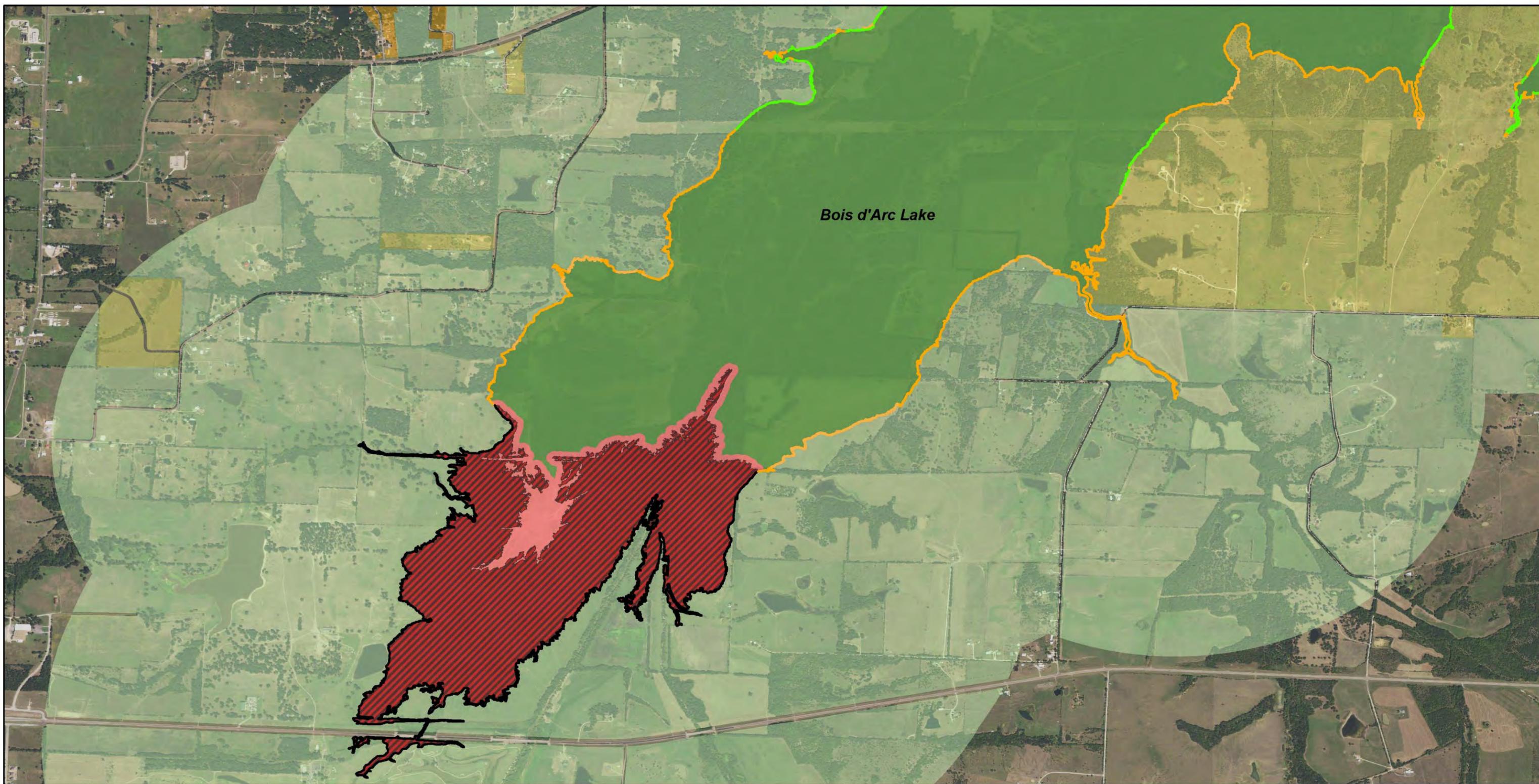
The Operations Plan and the Buoy Marking Plan take precedence over the water surface zones shown in the SMP



December 2023



For planning purposes only. NTMWD property generally extends up to the 541' MSL line. Please contact NTMWD for the official shoreline classifications and official property boundaries. All current land use zoning should be verified through Fannin County Development Services.



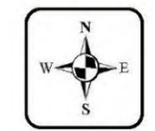
Shoreline and Surface Water Classifications

Figure 13

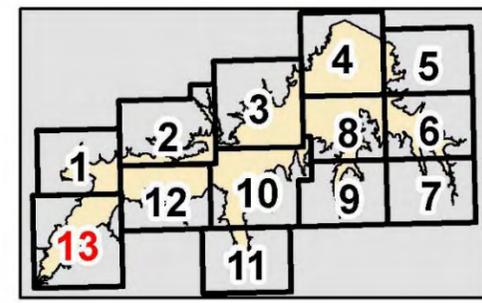
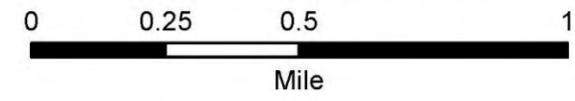
- | | |
|---|----------------------------------|
| Shoreline Classifications* | Current Land Use Zoning** |
| Restricted | Reservoir Operations |
| Environmentally Sensitive | Agriculture / Open Space |
| Limited Development | Office/Retail/Commercial |
| Dock Capable Shoreline | Residential (small lots) |
| Public Lake Access / Commercial Development | Residential (large lots) |
| Marina Overlay Zone | |
- **Bois d'Arc Lake Land Use Zoning developed by Fannin County Adopted: October 30, 2018 Amended: August 4, 2022
- *Shoreline Classifications developed by NTMWD

- | | | |
|----------------------------|--------------------------|---------|
| Surface Water Zones | | |
| Open Recreation | Wildlife Management Area | |
| Littoral Wetland | Restricted | No Wake |

The Operations Plan and the Buoy Marking Plan take precedence over the water surface zones shown in the SMP



December 2023



For planning purposes only. NTMWD property generally extends up to the 541' MSL line. Please contact NTMWD for the official shoreline classifications and official property boundaries. All current land use zoning should be verified through Fannin County Development Services.

Appendix B

Types of Docks



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Appendix B

Types of Docks

Two types of docks are allowed on Bois d'Arc Lake (the Lake): fixed and floating pole. When deciding which type of dock to construct, it is important to consider the following information.

NTMWD will not manage lake level elevations solely to maintain boat accessibility to the Lake. Lake operation for water supply and compliance with reservoir permit conditions supersedes any consideration for recreational uses or for private uses of NTMWD lands and waters. Because Bois d'Arc Lake is not a constant level or controlled level lake and is subject to drought or flooding without warning, persons who wish to construct improvements on NTMWD-owned property, including docks, access paths, or other improvements, will be required to accept all risks associated with the hazards of lake level fluctuations. These risks include, but are not limited to, lake level fluctuations resulting in the improvements being unusable during flood or drought conditions, which can extend over months or even years. Fluctuating water levels or extended periods of high or low water may result in the destruction of or damage to improvements and property stored on NTMWD-owned property and flowage easements, such as boats and docks.

Persons desiring to construct boat docks should fully understand that their docks will not be useable at some lake elevations. Water levels may be too low or too high for boat access to fixed docks and fixed pole docks that have a limited vertical range. Rainfall and water supply demands will cause water level fluctuations and high or low water conditions may occur for extended periods of time. Therefore, persons wishing to construct a boat dock should use prudent judgment and thoroughly research the pros and cons of dock ownership before investing in boat dock construction. Because of these water level fluctuations, differences in shoreline depths, and the limited vertical movement of the allowable dock types, boat docks on Bois d'Arc Lake will likely have limited accessibility for boats. In shallow lake areas, a dock will become unusable more quickly as the lake water level drops, resulting in less time that the dock is accessible to boats.

In addition to preventing access, high water may also cause other damage to boat docks and improvements on the shoreline. Flooding and impoundment of water on and over the shoreline may deposit silt, debris, and trash. NTMWD is not responsible for any cleanup, removal of any such silt, trash, or debris resulting from any such events or otherwise.

Fixed Docks

Figure 1 is an example of a fixed dock.



Figure 1. Example of Fixed Dock

Fixed docks cannot be moved vertically or horizontally. They are constructed on fixed pilings that are embedded in the bottom of the lake. As water levels fluctuate, the fixed dock will either be higher out of the water when lake levels go down or inundated as lake levels increase. When the water level goes down farther than 3 feet below the level of the dock, the dock is no longer accessible from the water and it does not provide access to the Lake. A fixed dock that is constructed for use at the conservation pool elevation of 534 MSL will only be useable if the water level is between 534 MSL and 531 MSL. Because precipitation rates will vary from month to month and year to year, the actual usability will vary and cannot be predicted.

Floating Pole Dock

Figure 2 is an example of a floating pole dock.



Figure 2. Example of Floating Pole Dock

A floating pole dock moves vertically as water levels fluctuate in the Lake. The length of poles determines the amount of vertical distance the dock is able to move up and down with fluctuating lake elevations. Generally, floating pole docks can have approximately a 10-foot elevation change. Longer poles are typically unstable and docks with longer poles are subject to increased exposure to damage with waves and wind. The land-end of the gangway is to be attached at the 535 MSL contour, which will allow for the dock to move with a 10-foot change in lake elevation, down to 525 MSL. Even though a floating dock could move with the lake surface down to 525 MSL, there would still need to be approximately 3 feet of water for safe boat operation; thus, the functional fluctuation range is 7 feet. Therefore, a floating pole dock would be useable when the lake elevation is between 535 MSL and 528 MSL. Because precipitation rates will vary from month to month and year to year, the actual usability will vary and cannot be predicted.

Maximum Distance from the 534 MSL Contour

The combined length of the gangway and dock may not extend further than 120 feet into the Lake from the 534 MSL contour.

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Appendix C

Blank Forms and Agreements



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Appendix C

Blank Forms and Agreements

The following blank forms are provided as part of Appendix C:

- C-1 Shoreline Lease and Use Agreement Application Form and Agreement Template
- C-2 Special Events/Temporary Use Agreement Application Form and Agreement Template
- C-3 Natural Resource Management Notification Application Form
- C-4 Mobility Assistance Vehicle (MAV) Agreement Application Form and Agreement Template
- C-5 Electrical Certification Requirements
- C-6 Boat Dock Inspection Checklist
- C-7 Certificate of Compliance
- C-8 Appeals Form

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Appendix C-1
Shoreline Lease and Use Agreement
Application Form and Agreement Template



Shoreline Lease and Use Agreement Application Form

Note: Applications are to be submitted through [MGOConnect.org](https://mgconnect.org) or in person at the permitting office through an available computer, if needed. See Appendix F of the SMP for submittal requirements.

SHORELINE LEASE AND USE AGREEMENT APPLICATION
Bois d’Arc Lake, North Texas Municipal Water District (NTMWD)

APPLICANT INFORMATION

Date of Application: _____

E-mail Address: _____

Name of Applicant: _____

Address: _____

Telephone: (_____) _____

City, State, Zip Code: _____

CONTRACTOR INFORMATION

Name of Contractor: _____

Address: _____

Telephone: (_____) _____

City, State, Zip Code: _____

E-mail Address: _____

AGREEMENT TYPE (check one)

- New
- Change in Ownership (Reissue Agreement); please provide agreement number:
- Agreement Renewal; please provide agreement number:

TYPE OF FACILITY (check one or more as appropriate)

Water-Based:

- Single-Owner Boat Dock
- Community Boat Dock
- Other/Exception (describe):

Land-Based:

- Vegetation Modification (including clearing standing timber)
- Land-based Recreational Facilities
- Access Path
- Other/Exception (describe):

PROJECT DESCRIPTION

Brief description of facility location (include adjacent parcel numbers) and the proposed activity on NTMWD land or easement: _____

CONSISTENCY WITH STANDARDS, POLICIES, AND PLANS

Please explain how the proposed project is consistent with NTMWD standards and policies and with the Bois d’Arc Lake Shoreline Management Plan (SMP).

PROJECT EXCEPTIONS (if applicable)

Please explain and justify any deviations in the proposed project from NTMWD standards and policies and the Bois d’Arc Lake SMP.

Length of time to complete construction (*if applying for a new agreement*) (maximum of one year allowed): _____

Date of pre-application site inspection (*for new dock construction*): _____

ALTERNATE POINT OF CONTACT

The following alternative party will be available on short-notice call and responsible for providing any access to and surveillance of the structure as needed.

Name of Alternate Contact: _____ Address: _____

Telephone: (_____) _____ Email Address: _____

APPLICATION FEE

See Fee Table. Application fee submitted to _____

Please note that annual fees may also apply to your Agreement.

ATTACHMENTS to be included with Agreement Application (see Appendix F for submittal requirements)

- For all new Agreements:
 - Provide proof of land ownership (e.g. warranty deed, tax assessor notice) that is immediately adjacent to and shares a common boundary with District land. Submit site map, aerial photos, survey plats, or other documents depicting location of private property.

- A copy of the boundary line survey including the seal and signature of a licensed Professional Land Surveyor. The survey should include the boundary line between NTMWD property and the adjacent landowner/applicant along the entire length requested for use plus an additional 100 feet to either side of the requested use footprint or to the property boundary (whichever is shorter).
- A site plan showing the location of the proposed improvements/activities on NTMWD-owned property. The site plan should show the surveyed boundary line and the relative locations of any proposed improvements/activities on NTMWD land as well as any useful landmarks such as an adjacent residence.
- Access paths: include a plan view showing path route and dimensions and materials to be used. Plan should show topography and appropriate erosion control measures proposed.
- Vegetation modification: include a plan view showing the area to be included in the agreement. Describe the existing vegetation including species and type (e.g. trees, shrubs, grasses) to be removed or modified. If planting is proposed, please refer to the native plant list when making selections.
- For applications for new docks, please also attach:
 - One electronic set of structural plans, electrical plans, and specifications for dock facility that have been approved by a Texas Licensed Professional Engineer. Please include all amenities proposed (e.g. storage box, solar battery storage, boat or PWC lift etc.) and provide construction materials and dimensions of facility. Reference to an approved dock plan on file with NTMWD is also acceptable. Please identify any additions or alterations to an approved plan. Structural alterations proposed are required to be stamped by a Texas Licensed Professional Engineer and/or electrician as appropriate.
 - If the adjoining private land is jointly-owned (e.g. Trust, LLC, Non-Profit, etc.), dock applicants must provide documentation indicating their interest in the jointly-owned property.
 - If replacing an existing dock, submit a letter stating the old dock will be dismantled and removed within 30 days of the installation of the new dock.
 - For Community Docks, provide authorized contact and alternates including name, address, and phone numbers.
- For reissuance or renewal of dock agreements only:
 - Electrical Certification (if applicable); page C-77
 - Certificate of Compliance or signed statement that all noted deficiencies have been corrected. This signifies the dock meets current inspection criteria.
 - For Community Docks, provide authorized contact and alternates including name, address, and phone numbers.

Please review the conditions that are required of all Shoreline Lease and Use Agreements as found in the SMP. General conditions for Shoreline Lease and Use Agreements are found in Appendix C of the SMP. The general conditions will be applied to all Shoreline Lease and Use Agreements. Additional site-specific conditions may be developed following review of your application.

Note: NTMWD reserves the right to alter this form or to request additional information not specified in this form.

SIGNATURE

I hereby designate and authorize the agent/consultant identified above to act on my behalf in processing of this agreement application, and to furnish, upon request, supplemental information in support of this application for shoreline use.

(Signature of Applicant/Adjacent Landowner) (Date)

(Printed Name of Applicant/Adjacent Landowner) (Date)

(Signature of Applicant/Adjacent Landowner) (Date)

(Printed Name of Applicant/Adjacent Landowner) (Date)

Shoreline Lease and Use Agreement Agreement Template

**SHORELINE LEASE AND USE AGREEMENT
NORTH TEXAS MUNICIPAL WATER DISTRICT
BOIS D'ARC LAKE**

Shoreline Lease and Use Agreement

This Shoreline Lease and Use Agreement (the “Agreement”) is entered into by and between the North Texas Municipal Water District (“NTMWD”), a conservation and reclamation district created under Article 16, Section 59, of the Texas Constitution, and _____, a/an _____ (“Lessee”). NTMWD and Lessee may also be referred to individually as a “Party” or collectively as the “Parties.”

Recitals

WHEREAS, NTMWD and Lessee are authorized to enter into this Agreement pursuant to Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280-141, Vernon's Texas Civil Statutes) and other applicable laws;

WHEREAS, NTMWD operates Bois d'Arc Lake (the “Lake”) as a public drinking water supply reservoir and allows opportunities for public recreation on the Lake;

WHEREAS, Lessee owns land adjacent to NTMWD-owned property at the Lake (the “Property”) and seeks to lease and use the adjacent NTMWD-owned property (the “Leased Property”) and make improvements on the Leased property, including structures and facilities on or over the water surface of the Lake (the “Improvements”);

WHEREAS, Lessee acknowledges there may be a Permanent Flowage and Flood Easement (the “Easement”) associated with the Property, on land located between the 541 feet mean sea level (“MSL”) and 545 MSL contour elevations;

WHEREAS, Lessee is aware the conditions of the Easement are permanently in effect and are separate from the requirements and conditions of this Agreement and the Shoreline Management Plan (“SMP”);

WHEREAS, this Agreement may authorize certain uses of the Easement, in addition to uses of the Leased Property, which shall not be inconsistent with conditions of the Easement, but may impose further restrictions on the Easement, for which the Lessee agrees to comply with, in accordance with the terms of this Agreement;

WHEREAS, Lessee notified NTMWD that Lessee intends to complete the Improvements as more fully described below (the “Project”);

WHEREAS, NTMWD has reviewed the Lessee’s Shoreline Lease and Use Agreement Application Form and all other required information for such application;

WHEREAS, Lessee has reviewed this Agreement and accepts its terms and conditions, including the general and special conditions described herein;

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, NTMWD agrees to grant Lessee the right to lease and use the Leased Property, and Lessee agrees to pay for such lease and use, upon the terms and conditions and for the consideration hereinafter set forth, to wit:

Lessee Information

Name:

Telephone, Area Code, and Number:

Email:

Address:

City, State Zip Code

Contractor Information

Name:

Telephone, Area Code, and Number:

Email:

Address:

City, State Zip Code:

Legal Description of Boundary Line with Leased Property (Survey attached)

Improvements Description (Specific structures and facilities) including a Site Plan

Use Description (Specific use and activities authorized)

GENERAL CONDITIONS

1. **REFERENCES.** Except as otherwise specifically provided, any reference herein to NTMWD shall include its duly authorized representatives. Any reference to “Lessee” shall include their duly authorized representatives.
2. **AGREEMENT FEES.** The Lessee shall pay, in advance, to NTMWD, compensation in accordance with the most recent approved NTMWD Fee Schedule. Fees are subject to change upon renewal of the Agreement.
3. **AGREEMENT SCOPE.** This Agreement is entered into solely with the Lessee for the purpose described in this Agreement. The exercise of the privileges herein granted shall be:
 - a. without cost or expense to NTMWD;
 - b. subject to the right of NTMWD to improve, use, or maintain the Leased Property;
 - c. subject to other outgrant’s of NTMWD on the Leased Property;
 - d. personal to the Lessee, and this Agreement, or any interest therein, may not be transferred or assigned. Upon the sale or other transfer of the Property or the death of Lessee and his/her legal spouse, this Agreement is null and void.
4. **TERM.** This Agreement becomes effective on the date this Agreement is signed by both Parties (the “Effective Date”) and will be valid for five (5) years after the date of the Certificate of Compliance, as defined in Section 19. Lessee has an option to renew this Agreement subject to NTMWD approval and NTMWD revising the terms and conditions of the Agreement at the time of renewal with such revisions being consistent with revisions made to other shoreline lease and use agreements, including but not limited to a current or updated fee/fine schedule.
5. **NOTICE.** Notices to be given pursuant to this Agreement shall be addressed, if to Lessee, the same as recited on the Application for Shoreline Lease and Use Agreement, and if to NTMWD, to

or as may from time to time otherwise be directed by the Parties. Notice shall be deemed to have been duly given if and when enclosed in a properly-sealed envelope or wrapper addressed as aforesaid, and deposited postage prepaid in a post office regularly maintained by the United States Postal Service.

6. **CONSTRUCTION, MAINTENANCE, & REPAIR.** The construction, operation, maintenance, repair or replacement of Improvements authorized by this Agreement shall be performed at no cost or expense to NTMWD and subject to the approval of NTMWD. Anything not expressly authorized in writing by NTMWD as an Improvement activity or an approved deviation from an Improvement activity is expressly prohibited. Upon the completion of any of such construction, operation, maintenance, repair or replacement, the Lessee shall immediately restore the Leased Property to the satisfaction of NTMWD. The use and occupation of the Leased Property for the purposes herein granted shall be subject to NTMWD’s property ownership rights, the policies as set forth in the Shoreline Management Plan for Bois d’Arc Lake, and to all applicable federal, state, and local laws and regulations. If Improvements are removed for storage or extensive maintenance, NTMWD may require portions of the Improvements be removed from the Leased Property.

7. **CONSTRUCTION ACCESS.** Construction access for dock building activities is authorized for both shore-side access and water-side access. Before, during, and after construction, the prevention and control of erosion is the responsibility of Lessee.
8. **LESSEE INSPECTION.** The Lessee acknowledges it shall inspect the Improvements at reasonable intervals and immediately repair any defects found by such inspection or when required by NTMWD to repair any such defects.
9. **LESSEE'S REPRESENTATIONS.** Lessee further represents that s/he will not be in violation of any regulations or restrictions imposed by Fannin County, Texas or the City of Bonham, Texas or by any deed restrictions that may be attached to the Property and that any required variance has been secured. NTMWD assumes no responsibility for, and Lessee will hold NTMWD harmless from, disputes of title, rights, or liability for damages to persons or property arising from the construction, operation, maintenance, repair or existence of any Improvements on the Leased Property. If at any time, the condition or presence of the Improvements interferes with the operation of the Lake or the safety of persons or property using the surface thereof, Lessee agrees to immediately make any and all changes or corrections necessary to make the Improvements comply with this Agreement or remove the Improvements from the Leased Property at Lessee's expense.
10. **RELEASE & ASSUMPTION OF RISK.** Lessee acknowledges that Bois d'Arc Lake is not a "constant level" or "controlled level" lake and is **SUBJECT TO DROUGHT OR FLOODING WITHOUT WARNING.** Lessee acknowledges and agrees that the Leased Property is being improved upon "**AS-IS, WHERE-IS,**" with all defects, whether known or unknown. Lessee recognizes the risk inherent in constructing Improvements in close proximity to, and over, the Lake because of the risks associated with flooding, high water, and drought conditions. These risks include, but are not limited to, lake level fluctuations resulting in Improvements, such as docks, being completely unusable during flood or drought conditions, which can extend over months or years, as it relates to multi-year drought conditions. As a condition of, and in consideration for, NTMWD's entering into this Agreement, as between NTMWD and Lessee, Lessee **AGREES TO ASSUME ALL RISK** of destruction of or damage to any Improvements and the property of Lessee or third parties located on the Property, Leased Property or Easement and to assume all risk of bodily injury or death to any person on the Property, Leased Property or Easement associated with the Improvements resulting from any cause. As part of the assumption of risk, Lessee, for itself and its heirs and assigns, **EXPRESSLY RELEASES NTMWD FROM ALL LOSS, COSTS, AND LIABILITY FOR (1) DAMAGE OR DESTRUCTION TO ANY OF ITS PROPERTY LOCATED ON OR AT THE PROPERTY, LEASED PROPERTY, OR EASEMENT RESULTING FROM ANY CAUSE AND (2) BODILY INJURY OR DEATH TO LESSEE OR ANY FAMILY MEMBER OR OTHER PERSON AT THE PROPERTY, LEASED PROPERTY, OR EASEMENT.**
11. **INDEMNIFICATION.** NTMWD shall have no liability whatsoever, either to Lessee, Lessee's successors, assigns, guest invitees or any other third party, for property damage to Lessee's Improvements or the contents thereof, **EVEN IF CAUSED BY THE NTMWD'S NEGLIGENCE.** NTMWD shall not be liable to Lessee or Lessee's guests, visitors, invitees or to any other person whomsoever, for any injury to person or damage to property on or about the Property, Leased Property or Easement due to **ANY CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION, INUNDATION OR FLOODING OF THE PROPERTY, LEASED PROPERTY, OR EASEMENT OR THE EFFECTS OF DROUGHT,** and Lessee agrees to indemnify NTMWD and hold it harmless from any loss, expenses, or claims including attorney's fees, arising out of any such damage of injury, **INCLUDING INJURY TO PERSON OR DAMAGE TO PROPERTY THE SOLE OR CONTRIBUTING CAUSE OF WHICH IS**

THE NEGLIGENCE OF NTMWD. If any action or proceeding is brought against NTMWD by reason of any such claim, Lessee, upon notice from NTMWD, will defend such action or proceeding with counsel acceptable to NTMWD.

12. **WAIVER OF ANY TAKINGS CLAIM.** Lessee **WAIVES ANY CLAIM IT MAY NOW OR IN THE FUTURE HAVE AGAINST NTMWD FOR A STATE OR FEDERAL “TAKINGS” or “INVERSE CONDEMNATION”** of either the Improvements or the portion of the Property, Leased Property or Easement on which the Improvements are located resulting from Lake levels being inconstant or from flooding, high water, drought, or similar occurrence, even if any of these occurrences is caused or alleged to be caused, in whole or in part, by NTMWD, whether through NTMWD’s negligence or otherwise.
13. **NO GOODS OR SERVICES PROVIDED TO NTMWD.** The Parties agree that pursuant to this Agreement the Lessee is not providing any “good or services” to NTMWD and this Agreement is not a contract subject to Chapter 271, Subchapter I of the Texas Local Government Code because no “goods or services,” as such terms have been interpreted by courts in the State of Texas, are provided by Lessee to NTMWD pursuant to this Agreement.
14. **DAMAGE TO LEASED PROPERTY.** Lessee shall be liable for any and all damage that may be caused to the Leased Property by the activities of Lessee under this Agreement and shall exercise due diligence in the protection of all property located on the Leased Property against fire or damage from any and all other causes. Any property of NTMWD damaged or destroyed by Lessee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by Lessee to a condition satisfactory to NTMWD, or at the election of NTMWD, reimbursement made therefore by Lessee in an amount necessary to restore or replace the property to a condition satisfactory to NTMWD.
15. **NTMWD’S ACCESS TO LEASED PROPERTY.** The right is reserved to NTMWD, its officers, agents, and employees to enter upon the Leased Property at any time and for any purpose necessary or convenient in connection with NTMWD work, to make inspections, to remove any material, except property of Lessee approved for use on the Leased Property, and/or to make any other use of the lands as may be necessary in connection with NTMWD purposes, and Lessee shall have no claim for damages on account thereof against NTMWD or any officer, agent, or employee thereof. NTMWD’s authorized representative shall be allowed to cross Lessee’s property, as necessary, to inspect Improvements. NTMWD will notify Lessee of any deficiencies noted and will establish a schedule for their correction. No deviation or changes from approved plans for Improvements will be allowed without prior written approval of NTMWD. Any deviations from the Improvements require prior written approval by NTMWD after the Lessee submits a request to NTMWD for a deviation in writing. NTMWD has thirty (30) days to review and respond to the request from the Lessee. Notwithstanding the foregoing, if NTMWD determines during an inspection that a noncompliance issue concerns a significant imminent threat to the environment or public health, safety, and general welfare, NTMWD may take whatever action necessary within the authority of NTMWD to eliminate such threat, including but not limited to, requiring Lessee to immediately address the noncompliance issue.
16. **COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS.** This Agreement is subject to all applicable federal and state laws and any applicable permits, ordinances, rules, orders, and regulations of any local, state or federal governmental authority having or asserting jurisdiction, including, but not limited to, the provisions of the latest edition of the National Electrical Code (NEC). Nothing contained herein shall be construed as a waiver of any right to question or contest

any such law, ordinance, order, rule, or regulation in any forum, having jurisdiction. This Agreement does not authorize any injury to private property or invasion of private rights or any infringement of local, state or federal laws or regulations, nor does it obviate the necessity of obtaining local, state, or federal assent required by law for the construction, operation, use, maintenance, or repair of the Improvement and/or use.

17. **RULES AND REGULATIONS.** The Leased Property shall be expressly subject to all rules and regulations promulgated by NTMWD for the construction, use, maintenance, and enjoyment of the Leased Property, including without limitation, all regulations and requirements of NTMWD, now or hereafter enacted. By signing this Agreement, Lessee specifically acknowledges that it has read the applicable requirements of the Bois d’Arc Lake Rules and Regulations, the SMP, Fannin County Comprehensive Plan, and Fannin County Zoning Regulations and agrees that Lessee’s use of the Leased Property shall at all times be in compliance with such plans and regulations.
18. **COMPLIANCE WITH OTHER AGREEMENTS.** The Lessee shall remain in compliance with all other agreements between the Lessee and NTMWD including, but not limited to, compliance with other agreements related to shoreline activities and applicable Flowage and Flood Easements. Non-compliance with any other NTMWD agreement, contract, lease, or easement shall be considered non-compliance with this Agreement.
19. **CONSTRUCTION TIME LIMITATION.** Lessee agrees to construct the Improvements within the time limit agreed to on the Effective Date of this Agreement. The Agreement shall become null and void if during such time limit the construction is not completed and NTMWD does not issue Lessee a certificate reflecting that the Improvements are in compliance with this Agreement and all other applicable rules and regulations, referred to as a “Certificate of Compliance” for purposes of this Agreement. The Certificate of Compliance is included in Exhibit ____, which may be amended or revised by NTMWD from time to time. Further, Lessee agrees to operate and maintain any Improvements and/or use in a manner so as to provide safety, minimize any adverse impact on fish and wildlife habitat, natural, environmental, or cultural resources values and in a manner so as to minimize the degradation of water quality.
20. **EROSION CONTROL STRUCTURES.** Lessee shall maintain, in a manner satisfactory to NTMWD, all soil and water conservation structures that may be in existence upon the Leased Property at the beginning of or that may be constructed by Lessee during the term of this Agreement, and Lessee shall take appropriate measures to prevent or control soil erosion within the right-of-way herein granted. Lessee agrees to allow any adjacent landowner that holds a lease with NTMWD to connect to shoreline erosion control structures constructed by the Lessee in order to facilitate contiguous shoreline erosion control between adjacent leased properties, including maintenance thereof. Any soil erosion occurring outside the Leased Property resulting from the use of the Leased Property shall be corrected by Lessee as directed by NTMWD.
21. **BOAT DOCK FACILITY USE.** If the Improvements include a boat dock facility, the dock facility shall be limited to the mooring of Lessee’s vessel or watercraft and the storage of equipment essential to the operation of such vessel or watercraft. Equipment must be stored in enclosed storage box facilities, such as lockers or equipment closets. Equipment may not be left unsecured or unattended. Chemical and petrochemical products shall not be stored on boat dock facility at any time and shall not be considered “equipment”.
22. **COMMERCIAL ACTIVITIES PROHIBITED.** No attempt shall be made by Lessee to forbid the full and free use by the public of all waters adjacent to the Improvements. No charge may be

made for use by others of the Improvement nor shall commercial activities, including any form of advertising, be conducted thereon.

23. **HABITATION PROHIBITED.** No habitation is authorized on the Leased Property or the Easement. No Improvements, camping equipment, temporary structures, recreation vehicles, nor any moored vessel shall be used as a place of habitation or as a full or part-time residence or in any manner that gives the appearance of human habitation on the Leased Property or the Easement. Household furnishings are not permitted on boat docks or other structures.
24. **TRANSFER OF INTEREST.** Improvements authorized under this Agreement will not be leased, rented (whether short-term or long-term, directly or indirectly, or through an internet-based company like Airbnb, Inc.), sub-let or provided to others by any means of engaging in commercial activity(s) by Lessee or his/her agent for monetary gain. This does not preclude Lessee from selling total ownership of the Improvements. If ownership of the Improvements is sold or transferred, Lessee or new owner will notify NTMWD of the action prior to finalization. The new owner must apply for a new Shoreline Lease and Use Agreement within thirty (30) days or remove the Improvements and restore the Leased Property within sixty (60) days from the date of ownership transfer. The new owner is responsible for paying any recording or processing fees.
25. **RECORD OF AGREEMENT FILED IN OFFICIAL PUBLIC RECORDS.** NTMWD will file a record of this Agreement, referred to as the “Record of Agreement,” with the Fannin County Clerk in the Fannin County Official Public Records.
26. **FLOATS AND FLOTATION MATERIALS.** Floats and the flotation material for all docks shall be fabricated of materials manufactured for marine use. The float and its flotation material shall be 100 percent warranted for a minimum of 8 years against sinking, becoming waterlogged, cracking, peeling, fragmenting, or losing beads. All floats shall resist puncture and penetration and shall not be subject to damage by animals under normal conditions for the area. All floats and the flotation material used in them shall be fire resistant. The use of new or recycled plastic or metal drums or non-compartmentalized air containers for encasement or floats is prohibited.
27. **ANCHORING.** The gangways to boat docks, fishing piers, or any other overwater structure shall be securely attached to the shore in accordance with the approved plans by means of moorings that do not create tripping hazards along the shoreline or adversely affect the natural terrain or vegetation. Anchoring to vegetation is prohibited.
28. **DREDGING.** Unless authorized in writing by a special condition, this Agreement does not authorize lake dredging. Lake dredging requires an individualized analysis by the United States Army Corps of Engineers (“USACE”) to determine whether it must be approved by the USACE. Lake dredging may be allowed for community docks, if the following conditions are met: 1) prior to dredging, the applicant must coordinate with NTMWD to obtain express written approval for the dredging activity; 2) if approval from NTMWD is obtained, the applicant must then obtain appropriate state or federal authorizations and/or permits, including a USACE Clean Water Act Section 404 permit, if required; 3) once any required state or federal authorizations and/or permits are obtained, the applicant must complete the NTMWD agreement process by providing NTMWD with copies of any such required authorizations and/or permits; and 4) Lessee must provide NTMWD with notification of the dredging activity that includes the estimated start date and end date for the dredging activity and a description of the specifications and construction methods to be employed during the dredging activity.

29. **IMPROVEMENT STANDARDS.** Docks and other permitted improvements must conform to the standards found in the SMP. These standards address electrical service and lighting, signage, improvement size and length, improvement location and spacing, orientation of the improvement to the shoreline, improvement maintenance, and other features and amenities as described in the Shoreline Management Plan. Any deviation from the Shoreline Management Plan requirements will be considered a violation of this Agreement.
30. **PERSONAL PROPERTY.** Loose personal property that has the ability to float must be stored in a secure locker or removed from the Leased Property when not in use.
31. **AGREEMENT DISPLAY TAG.** The Agreement Display tag shall be posted on the Improvements and/or on the land areas covered by the Agreement so that it can be visually checked with ease in accordance with instructions provided by NTMWD.
32. **VEGETATION.** No vegetation other than that prescribed in this Agreement will be damaged, destroyed, or removed. In no event will vegetation be disturbed to the extent the right-of-way will be subject to erosion or natural beauty destroyed. All disturbed areas shall be seeded, replanted, or given some type of equivalent protection against subsequent erosion. No change in landform such as grading, excavation or filling is authorized by this Agreement unless specifically included in the approved Improvement plans and description. No vegetation planting of any kind may be done, other than that specifically prescribed. Only native species are allowed. An approved native plant list is provided in the SMP.
33. **VEGETATION MODIFICATION.** When vegetation modification is approved to control or remove invasive plants and is authorized by chemical means, the modification will be in accordance with appropriate federal, state, and local laws, rules, and regulations.
34. **PROPERTY LINE AND SIDE YARD LINE DELINEATION.** For this Agreement, Lessee will delineate the boundary line between NTMWD property and the Lessee's property in a visibly clear, but unobtrusive manner approved by NTMWD and in accordance with the SMP for Bois d'Arc Lake. The Lessee will also identify the intersection of the projected side yard line and the 534 MSL as depicted in the exhibits attached to this Agreement.
35. **PROHIBITED ITEMS.** Treated landscape timbers or the storage, transfer or use of hydrocarbons or other petrochemical products, paint, pesticides, herbicides, or any other toxic or hazardous materials are not allowed on the Leased Property.
36. **ELECTRICAL SAFETY AND COMPLIANCE.** Lessee shall comply with all applicable federal, state, county, municipal laws, ordinances, and regulations wherein the permitted facilities/activities are located, including, but not limited to, the provisions of the latest edition of the National Electrical Code (NEC). Failure to abide by these applicable laws and regulations may be cause for revocation of the Agreement.
37. **POLLUTION PREVENTION.** Within the limits of their respective legal powers, the Parties hereto shall protect the Leased Property against pollution of its air, ground, and water. Lessee shall promptly comply with any laws, regulations, conditions, or instructions affecting the activity hereby authorized if and when issued by the Environmental Protection Agency ("EPA"), USACE, Texas Commission on Environmental Quality ("TCEQ"), or any federal, state, or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within the Leased Property is strictly prohibited. Such regulations,

conditions, or instructions in effect or prescribed by the said EPA, USACE, TCEQ, or any federal, state, or local governmental agency are hereby made a condition of this Agreement. The Lessee shall not discharge waste or effluent from the Leased Property in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.

38. **PESTICIDES AND HERBICIDES.** The use of any pesticides or herbicides within the Leased Property shall be in conformance with all applicable federal, state, and local laws and regulations. Lessee must obtain approval in writing from NTMWD before any pesticides or herbicides are applied to the Leased Property.
39. **ENVIRONMENTAL IMPACT.** Lessee will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs arising from Lessee's activities, Lessee shall be liable to restore the damaged resources.
40. **TIMBER CLEARING.** No timber within the Leased Property above the 534 MSL contour shall be cleared. Standing timber below the 534 MSL contour may be cleared only if approved through this Shoreline Lease and Use Agreement. Lessee shall provide documentation of coordination with USACE in accordance with the procedures described in the SMP. Such USACE coordination shall only occur after NTMWD has reviewed the timber clearing proposal and provided direction to engage in such coordination. Any timber clearing authorized under this Agreement must be in compliance with any required USACE approvals, authorizations, or permits. Timber clearing shall be approved by NTMWD in writing and shall be in accordance with the Clean Water Act Section 404 Permit for Bois d'Arc Lake as provided in the SMP. Timber clearing not approved by NTMWD in writing is prohibited.
41. **CULTURAL RESOURCES.** The Lessee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural, or other cultural artifacts, relics, remains, or objects of antiquity on NTMWD-owned property. In the event such items are discovered on NTMWD-owned property, Lessee shall immediately notify NTMWD and protect the site and material from further disturbance until NTMWD authorizes any further activity.
42. **TERMINATION OF AGREEMENT.** By thirty (30) days written notice, mailed to Lessee by certified letter, NTMWD may terminate this Agreement whenever necessary or when Lessee fails to comply with any Agreement condition or term. The revocation notice shall specify the reasons for such termination. Lessee may appeal a notice of termination to NTMWD within 15 days of receiving the notice. NTMWD will respond to the Lessee within 30 days of receiving an appeal.
43. **IMPROVEMENT REMOVAL.** On or before the expiration or termination of this Agreement or if Lessee ceases to use, operate, or maintain an Improvement and/or use, Lessee shall, without expense to NTMWD, remove said Improvements and restore the waterway and lands to the satisfaction of NTMWD within thirty (30) days. In the event Lessee shall fail to remove said Improvements and restore the Leased Property, NTMWD shall have the option to take over said Improvements without compensation, or to remove said Improvements and perform the restoration at the expense of Lessee, and Lessee shall have no claim for damages against NTMWD or its officers or agents for such action and no refund by NTMWD of any fee theretofore paid shall be made. Lessee agrees that if subsequent operations by NTMWD require an alteration in the location of an Improvement and/or use and if in the opinion of NTMWD an Improvement and/or use shall cause unreasonable obstruction to NTMWD use of the land or water area where the Improvement or use is located, Lessee shall be required, upon written notice from NTMWD, to remove, alter, or relocate the Improvement without expense to NTMWD.

44. **OTHER PERMITS REQUIRED.** This Agreement is effective only insofar as the rights of NTMWD in the Leased Property and Easement are concerned, and Lessee shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this Agreement does not eliminate the necessity of obtaining any other permit or license that may be required by federal, state, or local statute in connection with use of the Leased Property, including, but not limited to, any permits or authorization from USACE to ensure compliance with the Clean Water Act.
45. **SANITATION.** Lessee shall take all necessary action and provide all necessary Improvements to maintain the Leased Property in a clean and sanitary manner, removing promptly and regularly trash and garbage from the said area. Any materials and refuse from construction, maintenance, and repair activities are to be removed from the Leased Property immediately upon completion of such activities.
46. **LICENSED PROFESSIONAL ENGINEER REQUIRED.** NTMWD may require that remedial measures other than minor repairs and maintenance, and plans for same, be reviewed, designed, and sealed by a Texas Licensed Professional Engineer and approved by NTMWD.
47. **SEVERABILITY.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be considered as if such invalid, illegal, or unenforceable provision had never been contained in this Agreement.
48. **NO JOINT VENTURE.** It is acknowledged and agreed by the Parties that the terms hereof are not intended to and shall not be deemed to create any partnership or joint venture among the Parties. NTMWD, its past, present, and future officers, elected officials, employees and agents of NTMWD, do not assume any responsibilities or liabilities to any third party in connection with the improvements to, or use of, the Leased Property.
49. **ENTIRE AGREEMENT – NO ORAL MODIFICATIONS.** This Agreement embodies the entire Agreement of the Parties, superseding all oral or written previous and contemporary agreements between the Parties relating to matters set forth in this Agreement. Except as otherwise provided elsewhere in this Agreement, this Agreement cannot be modified without a written agreement executed by both Parties.
50. **NO THIRD PARTY BENEFICIARIES.** Lessee and NTMWD enter into this Agreement solely for the benefit of themselves and agree that nothing in this Agreement shall be construed to confer any right, privilege or benefit on any person or entity other than Lessee and NTMWD.
51. **VENUE.** It is specifically agreed among the Parties to this Agreement that Fannin County, Texas, is the place of performance of this Agreement; and, in the event that any legal proceeding is brought to enforce this Agreement or any provision hereof, the same shall be brought in Fannin County, Texas.
52. **ADOPTION OF PREAMBLE AND EXHIBITS.** All of the statements in the preamble and all of the exhibits of this Agreement are true and correct and are hereby incorporated into the body of this Agreement as though fully set forth in their entirety herein.

SPECIAL CONDITIONS *(To be completed for each project)***VIOLATIONS AND PENALTIES**

1. Lessees will be held accountable to the conditions outlined herein. If a violation is identified, NTMWD will follow the steps outlined below:

First Notice: NTMWD will generally issue a written warning notifying Lessee of the violation, outlining actions to correct the violation, and providing a resolution timeframe. Depending on the non-compliance issue (e.g. is the issue an imminent health or safety concern), the time provided for resolution and the degree to which NTMWD may step in and proactively correct an issue may vary. Some violations may immediately generate a fine. NTMWD may, at its discretion, waive fines to be imposed at the first notice. NTMWD will follow up within the specified timeframe to document resolution of the issue. Increased frequency of monitoring and inspection may be warranted for a period of time following resolution.

Second Notice: A second notice may involve the same activity or conditions as the first notice, or it may be a new issue. Second notices for the same situation that triggered the first notice will also be linked to increased fines and shorter resolution timeframes. Lessees will be required to reimburse NTMWD for costs associated with monitoring, inspection, and follow-up for second notice actions.

Third Notice: Three notices for the same or different instances of non-compliance with this Agreement within one year will trigger a notice to revoke or terminate this Agreement. Lessee will have 30 days to remove Improvements at his or her expense and restore the Leased Property to its condition prior to the construction of the Improvements (if applicable). Lessee may appeal a notice of termination to NTMWD within 15 days of receiving the notice. NTMWD will respond to the Lessee within 30 days.

2. Resolution timeframes and fines are dependent on the harm that may occur to people, property, and resources if the violation were to continue. Violations that are hazardous, or potentially hazardous, generally have shorter resolution timeframes and higher penalties than administrative violations. **Attachment A** outlines resolution timeframes, remedies, and fines for various violations.

EFFECTIVE DATE AND TERM

This Agreement becomes effective on the date this Agreement is signed by both parties (the “Effective Date”) and will be valid for five (5) years after the date of the Certificate of Compliance, as defined in Section 19.

AUTHORIZATION

This Agreement authorizes the lease and use of NTMWD-owned property described herein. If Lessee implements a project that differs from the Project described herein, Lessee will be subject to penalties and fines, described in this Agreement, and potentially termination.

EXECUTION

The Parties hereto acting under their respective authorities have caused this Agreement to be duly executed in several counterparts, each of which shall constitute an original.

SIGNATURES

The undersigned accepts and agrees to comply with all conditions contained in this Agreement.

(Signature of Lessee)

(Date)

(Printed Name of Lessee)

(Date)

(Signature of Lessee)

(Date)

(Printed Name of Lessee)

(Date)

STATE OF TEXAS §

COUNTY OF FANNIN §

This instrument was acknowledged before me on this _____ day of _____, 20____, by _____.

Notary Public, State of Texas

(Signature of NTMWD Representative)

(Date)

(Printed Name of NTMWD Representative)

(Date)

STATE OF TEXAS §

COUNTY OF FANNIN §

This instrument was acknowledged before me on this _____ day of _____, 20__, by _____.

Notary Public, State of Texas

Attachment A

Table 1: Violations, Remedies, and Penalties

Violation	Violation Category	Remedy	Resolution Timeframe (days) <i>First Notice</i>	Resolution Timeframe (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Unauthorized burning	Major	Immediately stop unauthorized burning and remove debris from NTMWD-owned property	1	N/A	200	N/A
Storage or placement of fuel, oil, treated landscape timbers, pesticides, or other hazardous materials on docks or NTMWD-owned property	Major	Remove hazardous materials from NTMWD-owned property and store in secure location on private property	5	3	N/A	200
Unauthorized use of pesticides/fertilizers on leased property	Major	Stop unauthorized use of pesticides and report changes in water quality (e.g., algal blooms and/or dead fish) to NTMWD	1	N/A	200	N/A
Unauthorized placement or storage of personal property on NTMWD-owned property and/or water	Major	Remove personal property from NTMWD-owned property and store in a secure location on private property	5	3	N/A	200
Unauthorized use of private overwater facility (e.g., human habitation on boat dock, storing nonauthorized vessels or watercraft at an approved boat dock, subletting boat dock)	Major	Stop unauthorized use and restore facility to post-violation conditions (e.g., remove evidence of human habitation from boat dock)	15	10	200	200
Unauthorized dock structure or dock modification	Major	Stop construction (if applicable) and restore facility to pre-violation conditions	15	10	200	200

Violation	Violation Category	Remedy	Resolution Timeframe (days) <i>First Notice</i>	Resolution Timeframe (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Unauthorized vegetation modification (e.g., removing vegetation outside of an authorized area, changing landform, planting unauthorized plants)	Major	Stop violation and restore to pre-violation conditions (e.g., replant with authorized native plant species)	30	15	200	200
Deviation from approved dock construction plans (e.g., construction materials, anchoring methods, etc.)	Major	Reconstruct dock to conform to approved construction plans	30	15	N/A	200
Unauthorized access path construction	Major	Stop construction and restore area to pre-violation conditions	15	10	200	200
Emerging erosion issues (signs may include shoreline recession, increased water turbidity and discoloration in the surrounding area, bare soil, exposed plant roots, and unstable banks)	Major	Stop erosion producing activity and install erosion control devices and/or plant native vegetation	30	15	200	200
Unauthorized use of a mobility assistance vehicle	Major	Stop unauthorized use, restore area to pre-violation conditions (if applicable)	15	10	N/A	200
Failure to delineate the NTMWD boundary line	Moderate	Delineate and mark the NTMWD boundary line using methods approved in the Shoreline Management Plan	15	10	N/A	200

Violation	Violation Category	Remedy	Resolution Timeframe (days) <i>First Notice</i>	Resolution Timeframe (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Failure to restore the leased area after completion of a permitted activity or after the lessee damages the area	Moderate	Restore area to pre-lease conditions (e.g., restore vegetation, install erosion control measures such as water bars and vegetated swales)	30	15	N/A	200/week
Failure of new adjacent landowner to apply for shoreline use agreement for existing uses within 30 days or to restore the use area within 60 days from the date of ownership transfer	Moderate	Apply for a new shoreline lease and use agreement or restore the use area	30	15	N/A	200/week
Failure to display agreement tags on authorized facilities	Minor	Display agreement tags according to agreement conditions and Shoreline Management Plan requirements	30	15	N/A	50/week
Failure to have MAV display tag affixed to vehicle or a copy of the agreement with the mobility assistance vehicle during use on NTMWD-owned property	Minor	Affix MAV display tag to vehicle or carry agreement according to authorization conditions	1	1	N/A	50
Failure to pay agreement fees	Minor	Pay outstanding agreement fee	30	15	N/A	50/week
Failure to renew an agreement	Minor	Apply for a new agreement and pay associated application fees	30	15	N/A	50/week
Failure to complete construction within allowed time limit	Minor	Apply for new agreement and pay associated application fees	30	15	N/A	50/week
Noncompliance with applicable laws, ordinances, and regulations	NA	NTMWD reports violations to the appropriate authority for enforcement	Depends on law/ regulation	Depends on law/ regulation	Depends on law/ regulation	Depends on law/ regulation

NTMWD = North Texas Municipal Water District; N/A = not applicable; SMP = Shoreline Management Plan

Appendix C-2
Special Events/Temporary Use Agreement
Application Form and Agreement Template



NORTH
TEXAS
MUNICIPAL
WATER
DISTRICT



NORTH
TEXAS
MUNICIPAL
WATER
DISTRICT

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**Special Events/Temporary Use Agreement
Application Form**

SPECIAL EVENT/TEMPORARY USE AGREEMENT APPLICATION
Bois d’Arc Lake, North Texas Municipal Water District (NTMWD)

APPLICANT INFORMATION

Organization (if applicable): _____ Date of Application: _____

Name of Applicant: _____

Telephone: (_____) _____

E-mail Address: _____

Address: _____

City, State, Zip Code: _____

PROJECT DESCRIPTION

Location of proposed event/temporary use: _____

Start and end date of proposed event/temporary use: _____

Detailed description and purpose of event/temporary use: _____

Estimate number of attendees: _____

ATTACHMENTS to be included with Agreement Application

- Map or plan of the site showing location of event.
- Proof of Insurance to cover event.
- Description of any necessary security and sanitation measures to be implemented for crowd control, public safety, and protection of water quality.
- Parking and traffic control measures to be implemented.
- Correspondence or documentation of coordination with other authorizing or coordinating agencies such as emergency responders, Fannin County Sheriff’s Office, Texas Parks and Wildlife Department, ambulance services, and waste management.

Please review the conditions that are required of all Special Event/Temporary Use Agreements as found in the SMP. General conditions for Special Event/Temporary Use Agreements are found in Appendix C of the SMP. The general conditions would be applied to all Special Event/Temporary Use Agreements. Additional site- and event-specific conditions may be developed following review of your application.

Note: NTMWD reserves the right to alter this form or to request additional information not specified in this form.

APPLICATION FEE

See Fee Table. Application fee submitted _____

SIGNATURE

I certify that the information provided on this form and all attachments related to this project are true and accurate to the best of my knowledge. I also certify that I am an authorized representative of the person or organization seeking this Special Event/Temporary Use Agreement. I understand that failure to provide true and accurate information may result in the Application being denied or a previously approved Agreement being terminated.

(Signature of Applicant)

(Date)

(Printed Name of Applicant)

(Date)

(Signature of Applicant)

(Date)

(Printed Name of Applicant)

(Date)

**Special Event/Temporary Use Agreement
Agreement Template**

**SPECIAL EVENT/TEMPORARY USE AGREEMENT
NORTH TEXAS MUNICIPAL WATER DISTRICT
BOIS D'ARC LAKE**

Special Event/Temporary Use Agreement

This Special Event/Temporary Use Agreement (the “Agreement”) is entered into between the North Texas Municipal Water District (“NTMWD”) a conservation and reclamation district created under Article 16, Section 59, of the Texas Constitution, and _____, a/an (“User”). NTMWD and User may also be referred to individually as a “Party” or collectively as the “Parties.”

Recitals

WHEREAS, NTMWD and User are authorized to enter into this Agreement pursuant to Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280-141, Vernon's Texas Civil Statutes) and other applicable laws;

WHEREAS, NTMWD operates Bois d'Arc Lake (the “Lake”) as a public drinking water supply reservoir and allows opportunities for public recreation on the Lake;

WHEREAS, User notified NTMWD that User intends to facilitate the event on the property (the “Property”) as more particularly described herein and has provided NTMWD documentation of its legal right to conduct the event on the Property that is not owned by NTMWD;

WHEREAS, NTMWD has reviewed the User’s application for a Special Event/Temporary Use Agreement;

WHEREAS, User has reviewed this Agreement and accepts its terms and conditions, including the general and special conditions described herein;

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, NTMWD agrees to grant the User the right to conduct the event or use the Property temporarily in accordance with this Agreement. The User agrees to pay for such Agreement and use, upon the terms and conditions and for the consideration hereinafter set forth, to wit:

User Information

Organization (if applicable):

Name:

Telephone, Area Code, and Number:

Email:

Address:

City, State, Zip Code:

Legal Description of Property or Location of Event (include all areas needed for the event such as parking, if applicable, and clearly delineate any NTMWD property to be used)

Special Event/Temporary Use Description and Location (Specific use and activities authorized)

Special Event/Temporary Use Impacts

GENERAL CONDITIONS

1. **REFERENCES.** Except as otherwise specifically provided, any reference herein to “NTMWD” shall include its duly authorized representatives. Any reference to “User” shall include their duly authorized representatives.
2. **AGREEMENT FEES.** The User shall pay, in advance, to NTMWD, compensation in accordance with the most recent approved NTMWD Fee Schedule.
3. **AGREEMENT SCOPE.** This Agreement is entered into solely with the User for the purpose described in this Agreement. The exercise of the privileges herein granted shall be:
 - a. without cost or expense to NTMWD;
 - b. subject to the right of NTMWD to improve, use or maintain any NTMWD property
 - c. subject to other outgrant’s of NTMWD on any NTMWD property
 - d. personal to the User, and this Agreement, or any interest therein, may not be transferred or assigned

NOTICE. Notices to be given pursuant to this Agreement shall be addressed, if to User, the same as recited on the Application for Special Event/Temporary Use, and if to NTMWD, to

_____ or

as may from time to time otherwise be directed by the parties. Notice shall be deemed to have been duly given if and when enclosed in a properly-sealed envelope or wrapper addressed as aforesaid, and deposited postage prepaid in a post office regularly maintained by the United States Postal Service.

4. **USER’S REPRESENTATIONS.** User represents that s/he will not be in violation of any regulations or restrictions imposed by Fannin County, Texas or the City of Bonham, Texas or by any deed restrictions that may be attached to the Property and that any required variance has been secured. NTMWD assumes no responsibility for, and User will hold NTMWD harmless from, disputes of title, rights, or liability for damages to persons or property arising from the Special Event/Temporary Use on the Property. If at any time, the condition or presence of the Special Event/Temporary Use interferes with the operation of the Lake or the safety of persons or property using the surface thereof, User agrees to immediately make any and all changes or corrections necessary to make the Property comply with this Agreement or remove the Special Event/Temporary Use from the Property at User’s expense.
5. **RELEASE & ASSUMPTION OF RISK.** User acknowledges that the Lake is not a “constant level” or “controlled level” lake and is **SUBJECT TO DROUGHT OR FLOODING WITHOUT WARNING.** User acknowledges and agrees that the Property is being used “**AS-IS, WHERE-IS,**” with all defects, whether known or unknown. User recognizes the risk inherent in facilitating Special Event/Temporary Use in close proximity to, and over, the Lake because of the risks associated with flooding, high water, and drought conditions. These risks include, but are not limited to, lake level fluctuations resulting in Improvements, such as docks, being completely unusable during flood or drought conditions, which can extend over months or years, as it relates to multi-year drought conditions. As a condition of, and in consideration for, NTMWD’s entering into this Agreement, as between NTMWD and User, User **AGREES TO ASSUME ALL RISK** of destruction of or damage

to any Special Event/Temporary Use and the property of User or third parties located on the Property and to assume all risk of bodily injury or death to any person on the Property associated with the Special Event/Temporary Use resulting from any cause. As part of the assumption of risk, User, for itself and its heirs and assigns, **EXPRESSLY RELEASES NTMWD FROM ALL LOSS, COSTS, AND LIABILITY FOR (1) DAMAGE OR DESTRUCTION TO ANY OF ITS PROPERTY LOCATED ON OR AT THE PROPERTY RESULTING FROM ANY CAUSE AND (2) BODILY INJURY OR DEATH TO USER OR ANY FAMILY MEMBER OR OTHER PERSON AT THE PROPERTY RESULTING FROM ANY CAUSE.**

6. **INDEMNIFICATION.** NTMWD shall have no liability whatsoever, either to User, User's guest invitees, or any other third party, for property damage to User's Special Event/Temporary Use or the contents thereof, **EVEN IF CAUSED BY THE NTMWD'S NEGLIGENCE.** NTMWD shall not be liable to User or User's guests, visitors, invitees or to any other person whomsoever, for any injury to person or damage to property on or about the Property due to **ANY CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION, INUNDATION OR FLOODING OF THE PROPERTY OR THE EFFECTS OF DROUGHT,** and User agrees to indemnify NTMWD and hold it harmless from any loss, expenses, or claims including attorney's fees, arising out of any such damage of injury, **INCLUDING INJURY TO PERSON OR DAMAGE TO PROPERTY THE SOLE OR CONTRIBUTING CAUSE OF WHICH IS THE NEGLIGENCE OF NTMWD.** If any action or proceeding is brought against NTMWD by reason of any such claim, User, upon notice from NTMWD, will defend such action or proceeding with counsel acceptable to NTMWD.
7. **NO GOODS OR SERVICES PROVIDED TO NTMWD.** The Parties agree that pursuant to this Agreement the User is not providing any "good or services" to NTMWD and this Agreement is not a contract subject to Chapter 271, Subchapter I of the Texas Local Government Code because no "goods or services," as such terms have been interpreted by courts in the State of Texas, are provided by User to NTMWD pursuant to this Agreement.
8. **DAMAGE TO PROPERTY.** User shall be liable for any and all damage that may be caused to the Property by the activities of User under this Agreement and shall exercise due diligence in the protection of all property located on the Property against fire or damage from any and all other causes. Any property of NTMWD damaged or destroyed by User incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by User to a condition satisfactory to NTMWD, or at the election of NTMWD, reimbursement made therefore by User in an amount necessary to restore or replace the property to a condition satisfactory to NTMWD.
9. **NTMWD'S ACCESS TO PROPERTY.** The right is reserved to NTMWD, its officers, agents, and employees to enter upon the Property at any time and for any purpose necessary or convenient in connection with NTMWD work, to make inspections, to remove any material, except property of User approved for use on the Property, and/or to make any other use of the lands as may be necessary in connection with NTMWD purposes, and User shall have no claim for damages on account thereof against NTMWD or any officer, agent, or employee thereof. NTMWD's authorized representative shall be allowed to cross the Property, as necessary, to inspect the Special Event/Temporary Use. Notwithstanding the foregoing, if NTMWD determines during an inspection that a noncompliance issue concerns a significant imminent threat to the environment or public health, safety, and general welfare, NTMWD may take whatever action necessary within the authority of NTMWD to eliminate

such threat, including but not limited to, requiring User to immediately address the noncompliance issue.

10. **COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS.** This Agreement is subject to all applicable federal and state laws and any applicable permits, ordinances, rules, orders, and regulations of any local, state or federal governmental authority having or asserting jurisdiction, including, but not limited to, the provisions of the latest edition of the National Electrical Code (NEC). Nothing contained herein shall be construed as a waiver of any right to question or contest any such law, ordinance, order, rule, or regulation in any forum, having jurisdiction. This Agreement does not authorize any injury to private property or invasion of private rights or any infringement of local, state or federal laws or regulations, nor does it obviate the necessity of obtaining local, state, or federal assent required by law for the Special Event/Temporary Use of the Property.
11. **RULES AND REGULATIONS.** The Property shall be expressly subject to all rules and regulations promulgated by NTMWD for the construction, use, maintenance, and enjoyment of the Property, including without limitation, all regulations and requirements of NTMWD, now or hereafter enacted. By signing this Agreement, User specifically acknowledges that it has read the applicable requirements of the Bois d'Arc Lake Rules and Regulations, the Shoreline Management Plan ("SMP"), Fannin County Comprehensive Plan, and Fannin County Zoning Regulations and agrees that User's use of the Property shall at all times be in compliance with such plans and regulations.
12. **COMPLIANCE WITH OTHER AGREEMENTS.** The User shall remain in compliance with all other agreements between the User and NTMWD including, but not limited to, compliance with other agreements related to shoreline activities and applicable Flowage and Flood Easements. Non-compliance with any other NTMWD agreement, contract, lease, or easement shall be considered non-compliance with this Agreement.
13. **EROSION CONTROL STRUCTURES.** User shall maintain, in a manner satisfactory to NTMWD, all soil and water conservation structures that may be in existence upon the Property at the beginning of or that may be constructed by User during the term of this Agreement, and User shall take appropriate measures to prevent or control soil erosion within the right-of-way herein granted. Any soil erosion occurring outside the Property resulting from the use of the Property shall be corrected by User as directed by NTMWD.
14. **PERSONAL PROPERTY.** Loose personal property that has the ability to float must be stored in a secure locker or removed from the Property when not in use.
15. **VEGETATION.** No vegetation will be damaged, destroyed, or removed. In no event will vegetation be disturbed to the extent the right-of-way will be subject to erosion or natural beauty destroyed. All disturbed areas shall be seeded, replanted, or given some type of equivalent protection against subsequent erosion. No change in landform such as grading, excavation or filling is authorized by this Agreement unless specifically included in the approved project plans and description for the Special Event/Temporary Use. No vegetation planting of any kind may be done, other than that specifically prescribed. Only native species are allowed. An approved native plant list is provided in the SMP.

16. **PROPERTY LINE DELINEATION.** For this Agreement, User will ensure that the NTMWD property line is delineated in a visibly clear, but unobtrusive manner approved by NTMWD and in accordance with the SMP for the Lake.
17. **PROHIBITED ITEMS.** Treated landscape timbers or the storage, transfer or use of hydrocarbons or other petrochemical products, paint, pesticides, herbicides, or any other toxic or hazardous materials are not allowed on the Property.
18. **POLLUTION PREVENTION.** Within the limits of their respective legal powers, the Parties hereto shall protect the Property against pollution of its air, ground, and water. User shall promptly comply with any laws, regulations, conditions, or instructions affecting the activity hereby authorized if and when issued by the Environmental Protection Agency, the United States Army Corps of Engineers, Texas Commission on Environmental Quality, or any federal, state, or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within the Property is strictly prohibited. Such regulations, conditions, or instructions in effect or prescribed by the said Environmental Protection Agency, the United States Army Corps of Engineers, Texas Commission on Environmental Quality, or any federal, state, or local governmental agency are hereby made a condition of this Agreement. The User shall not discharge waste or effluent from the Property in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.
19. **PESTICIDES AND HERBICIDES.** The use of any pesticides or herbicides within the Property shall be in conformance with all applicable federal, state, and local laws and regulations. User must obtain approval in writing from NTMWD before any pesticides or herbicides are applied to the Property.
20. **ENVIRONMENTAL IMPACT.** User will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs arising from User's activities, User shall be liable to restore the damaged resources.
21. **TIMBER CLEARING.** Timber clearing under a Special Event/Temporary Use Agreement is prohibited.
22. **CULTURAL RESOURCES.** The User shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural, or other cultural artifacts, relics, remains, or objects of antiquity on NTMWD-owned property. In the event such items are discovered on NTMWD-owned property, User shall immediately notify NTMWD and protect the site and material from further disturbance until NTMWD authorizes any further activity.
23. **OTHER PERMITS REQUIRED.** This Agreement is effective only insofar as the rights of NTMWD in the Leased Property and Easement are concerned, and User shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this Agreement does not eliminate the necessity of obtaining any other permit or license that may be required by federal, state, or local statute in connection with use of the Property, including, but not limited to, any permits or authorization from the United States Army Corps of Engineers to ensure compliance with the Clean Water Act.

24. **SANITATION.** User shall take all necessary action to maintain the Property in a clean and sanitary manner, removing promptly and regularly trash and garbage from the said area.
25. **SEVERABILITY.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be considered as if such invalid, illegal, or unenforceable provision had never been contained in this Agreement.
26. **NO JOINT VENTURE.** It is acknowledged and agreed by the Parties that the terms hereof are not intended to and shall not be deemed to create any partnership or joint venture among the Parties. NTMWD, its past, present, and future officers, elected officials, employees and agents of NTMWD, do not assume any responsibilities or liabilities to any third party in connection with the improvements to, or use of, the Leased Property.
27. **ENTIRE AGREEMENT – NO ORAL MODIFICATIONS.** This Agreement embodies the entire Agreement of the Parties, superseding all oral or written previous and contemporary agreements between the Parties relating to matters set forth in this Agreement. Except as otherwise provided elsewhere in this Agreement, this Agreement cannot be modified without a written agreement executed by both Parties.
28. **NO THIRD PARTY BENEFICIARIES.** User and NTMWD enter into this Agreement solely for the benefit of themselves and agree that nothing in this Agreement shall be construed to confer any right, privilege or benefit on any person or entity other than User and NTMWD.
29. **VENUE.** It is specifically agreed among the Parties to this Agreement that Fannin County, Texas, is the place of performance of this Agreement; and, in the event that any legal proceeding is brought to enforce this Agreement or any provision hereof, the same shall be brought in Fannin County, Texas.
30. **ADOPTION OF PREAMBLE AND EXHIBITS.** All of the statements in the preamble and all of the exhibits of this Agreement are true and correct and are hereby incorporated into the body of this Agreement as though fully set forth in their entirety herein.

SPECIAL CONDITIONS *(To be completed for each project)*

VIOLATIONS AND PENALTIES

Users will be held accountable to the conditions outlined herein. If a violation is identified, the NTMWD will issue a written warning notifying the grantee of the violation, outlining actions to correct the violation, and providing a resolution time frame. Depending on the non-compliance issue (e.g. is the issue an imminent health or safety concern), the time provided for resolution and the degree to which NTMWD may step in and proactively correct an issue may vary. Violators would be subject to a fine and, if the event/temporary use has not already ended, revocation of this Agreement. NTMWD will follow up within the specified time frame to document resolution of the issue. If the Special Event/Temporary Use, and any associated facilities, are not removed within the authorized time limit in this Agreement, NTMWD has the right to remove or halt the Special Event/Temporary Use.

Resolution time frames and fees are dependent on the harm that may occur to people, property, and resources if the violation were to continue. Violations that are hazardous, or potentially hazardous, generally have shorter resolution time frames and higher penalties than administrative violations. **Attachment A** outlines resolution time frames, remedies, and fines for various violations.

Effective Date and Term

This Agreement becomes effective on the date this Agreement is signed by both parties (the “Effective Date”) and will be valid for _____ after the date of this signature. This Agreement will expire on _____.

Authorization

This Agreement authorizes the activity described herein. If User implements a Special Event/Temporary Use that differs from what is authorized in this Agreement, the User will be subject to penalties and fines described in this Agreement, and potentially termination.

Execution

The Parties hereto acting under their respective authorities have caused this Agreement to be duly executed in several counterparts, each of which shall constitute an original.

Signatures

The undersigned accepts and agrees to comply with all conditions contained in this Agreement.

(Signature of User) (Date)

(Printed Name of User) (Date)

(Signature of User) (Date)

(Printed Name of User) (Date)

STATE OF TEXAS §

COUNTY OF FANNIN §

This instrument was acknowledged before me on this _____ day of _____, 20__, by _____.

Notary Public, State of Texas

(Signature of NTMWD Representative)

(Date)

(Printed Name of NTMWD Representative)

(Date)

STATE OF TEXAS §

COUNTY OF FANNIN §

This instrument was acknowledged before me on this _____ day of _____, 20__, by _____.

Notary Public, State of Texas

Attachment A**Special Event/Temporary Use Agreement Violations, Remedies, and Penalties**

Violation	Violation Category	Remedy	Resolution Time Frame (days) <i>First Notice</i>	Fine (\$)
Unauthorized burning	Major	Immediately stop unauthorized burning and remove debris from NTMWD-owned property	1	200
Storage or placement of fuel, oil, treated landscape timbers, pesticides, or other hazardous materials docks or NTMWD-owned property	Major	Remove hazardous materials from NTMWD-owned property and store in secure location on private property	1	200
Unauthorized use of pesticides/fertilizers on NTMWD-owned property	Major	Stop unauthorized use of pesticides and report changes in water quality (e.g. algal blooms and/or dead fish) to NTMWD	1	200
Unauthorized placement or storage of personal property on NTMWD-owned property and/or water	Major	Remove personal property from NTMWD-owned Property and store in a secure location on private property	1	200
Unauthorized use of private floating facility (e.g. human habitation of boat dock, storing non-authorized vessels or watercraft at an approved boat dock, subletting boat dock)	Major	Stop unauthorized use and restore facility to post-violation conditions (e.g. remove evidence of human habitation from boat dock)	3	200
Unauthorized dock structure or dock modification	Major	Stop construction (if applicable) and restore facility to post-violation conditions	3	200
Unauthorized vegetation modification (e.g. removing vegetation outside of an authorized area, changing landform, planting unauthorized plants)	Major	Stop violation and restore to post-violation conditions (e.g. replant with authorized native plant species)	3	200
Unauthorized access path construction	Major	Stop construction and restore area to post-violation conditions	3	200
Emerging erosion issues (signs may include shoreline recession, increased water turbidity and discoloration in the surrounding area, bare soil, exposed plant roots, and unstable banks)	Major	Stop erosion producing activity and install erosion control devices and/or plant native vegetation	5	200
Unauthorized use of a mobility assistance vehicle	Major	Stop unauthorized use, restore area to pre-violation conditions (if applicable)	3	200
Failure to restore the leased area after completion of an authorized activity or after the user damages the area	Moderate	Restore area to pre-lease conditions (e.g. restore vegetation, install erosion control measures such as water bars and vegetated swales)	5	200/week
Failure to pay agreement fees	Minor	Pay outstanding agreement fee	5	50/week
Failure to complete activity within authorized time limit	Major	NTMWD will remove facility/activity	5	50/week
Noncompliance with applicable laws, ordinances, and regulations	NA	NTMWD reports violations to the appropriate authority for enforcement	Depends on law/regulation	Depends on law/regulation

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Appendix C-3

Natural Resource Management Notification



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Note on the use of the Natural Resource Management Notification:

The Natural Resource Management Notification is intended as a notification that the applicant completes and submits to NTMWD. NTMWD will then acknowledge receipt of the Notification within 2 business days and the applicant is authorized to proceed with the natural resource management actions in accordance with the conditions that are included in the notification form which has been signed by the applicant. The NTMWD acknowledgement must be in writing and will generally occur via email response or through MGO Connect. There is no application fee associated with the Notification.

NATURAL RESOURCE MANAGEMENT NOTIFICATION
Bois d’Arc Lake, North Texas Municipal Water District (NTMWD)

Date of Notification: _____

APPLICANT INFORMATION

Full Name of Applicant (Print): _____

Telephone: (_____) _____

E-mail Address: _____

Address: _____

City, State, Zip Code: _____

CONTRACTOR INFORMATION (if applicable)

Name of Contractor: _____

Telephone: (_____) _____

E-mail Address: _____

Address: _____

City, State, Zip Code: _____

TYPE OF ACTIVITY

Only the following Natural Resource Management activities (the “Activity”) may be approved through a Natural Resource Management Notification (the “Notification”). For all other activities including any clearing of vegetation not specifically described below, please apply for a Shoreline Lease and Use Agreement.

- Hazard tree removal (maximum of 2 trees removed)
- Planting/restoration of native vegetation (plant species to be selected from the approved native plant list found in the SMP)
- Herbicide/pesticide application
- Noxious weed removal (only covers removal of species listed as noxious and invasive by the state of Texas)
- Burning (only allowed under special circumstances; unauthorized burning is subject to a \$200 fine)

PROJECT DESCRIPTION

Location of proposed activity:

Start and end date of proposed activity:

Detailed description of activity:

If applying for burning of debris on District Lands, please see TCEQ open burning rules (Special Conditions).

ATTACHMENTS to be included with Notification Application

- Proof of land ownership (e.g. warranty deed) that is immediately adjacent to and shares a common boundary with NTMWD-owned property.
- Map or plan of the site showing location of activity.

CONDITIONS

1. **REFERENCES.** Except as otherwise specifically provided, any reference herein to “NTMWD” shall include its duly authorized representatives. Any reference to “Applicant” shall include their duly authorized representatives.
2. **AGREEMENT SCOPE.** This Agreement is entered into solely with the Applicant for the purpose described in this Agreement. The exercise of the privileges herein granted shall be:
 - without cost or expense to NTMWD;
 - subject to the right of NTMWD to improve, use, or maintain NTMWD-owned Property;
 - subject to other outgrant’s of NTMWD on the NTMWD-owned Property;
 - personal to the Applicant, and this Agreement, or any interest therein, may not be transferred or assigned.
3. **NOTICE.** Notices to be given pursuant to this Agreement shall be addressed, if to Applicant, the same as recited above under “Applicant Information,” and if to NTMWD, to

_____or
as may from time to time otherwise be directed by the parties. Notice shall be deemed to have been duly given if and when enclosed in a properly-sealed envelope or wrapper addressed as aforesaid, and deposited postage prepaid in a post office regularly maintained by the United States Postal Service.
4. **APPROVAL TO PROCEED.** Approval to proceed with the activities described in this Notification will be directed to the Applicant by NTMWD generally within 2 business days of the receipt of a complete and signed Notification. The Applicant may not proceed with the Activity described herein,

until such Approval to Proceed is received. Approval to Proceed may be transmitted via email or by United States Postal Service.

5. **RELEASE & ASSUMPTION OF RISK.** Applicant acknowledges that Bois d’Arc Lake is not a “constant level” or “controlled level” lake and is **SUBJECT TO DROUGHT OR FLOODING WITHOUT WARNING**. Applicant acknowledges and agrees that the NTMWD-owned property is being managed “**AS-IS, WHERE-IS,**” with all defects, whether known or unknown. Applicant recognizes the risk inherent in undertaking the Activity in close proximity to, and over, the Lake because of the risks associate with flooding, high water, and drought conditions. These risks include, but are not limited to, lake level fluctuations resulting in Improvements, such as docks, being completely unusable during flood or drought conditions, which can extend over months or years, as it relates to multi-year drought conditions. As a condition of, and in consideration for, NTMWD’s entering into this Agreement, as between NTMWD and Applicant, Applicant **AGREES TO ASSUME ALL RISK** of destruction of or damage to any natural resources managed by the Activity and the property of Applicant or third parties located on the NTMWD-owned property and to assume all risk of bodily injury or death to any person on NTMWD-owned property associated with the Activity resulting from any cause. As part of the assumption of risk, Applicant, for itself and its heirs and assigns, **EXPRESSLY RELEASES NTMWD FROM ALL LOSS, COSTS, AND LIABILITY FOR (1) DAMAGE OR DESTRUCTION TO ANY OF ITS PROPERTY LOCATED ON OR AT THE NTMWD-OWNED PROPERTY RESULTING FROM ANY CAUSE, INCLUDING BUT NOT LIMITED TO THE ACTIVITY AND (2) BODILY INJURY OR DEATH TO APPLICANT OR ANY FAMILY MEMBER OR OTHER PERSON AT THE NTMWD-OWNED PROPERTY RESULTING FROM ANY CAUSE, INCLUDING BUT NOT LIMITED TO THE ACTIVITY.**
6. **INDEMNIFICATION.** NTMWD shall have no liability whatsoever, either to Applicant, Applicant’s guest invitees or any other third party, for property damage to Applicant’s improvements or the contents thereof, **EVEN IF CAUSED BY THE NTMWD’S NEGLIGENCE**. NTMWD shall not be liable to Applicant or Applicant’s guests, visitors, invitees or to any other person whomsoever, for any injury to person or damage to property on or about the NTMWD-owned property due to **ANY CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION, INUNDATION OR FLOODING OF THE NTMWD-OWNED PROPERTY OR THE EFFECTS OF DROUGHT**, and Applicant agrees to indemnify NTMWD and hold it harmless from ay loss, expenses, or claims including attorney’s fees, arising out of any such damage of injury, **INCLUDING INJURY TO PERSON OR DAMAGE TO PROPERTY THE SOLE OR CONTRIBUTING CAUSE OF WHICH IS THE NEGLIGENCE OF NTMWD**. If any action or proceeding is brought against NTMWD by reason of any such claim, Applicant, upon notice from NTMWD, will defend such action or proceeding with counsel acceptable to NTMWD.
7. **WAIVER OF ANY TAKINGS CLAIM.** Applicant **WAIVES ANY CLAIM IT MAY NOW OR IN THE FUTURE HAVE AGAINST NTMWD FOR A STATE OR FEDERAL “TAKINGS” or “INVERSE CONDEMNATION”** of the Applicant improvements on NTMWD-owned property on which the Activity occurs resulting from Lake levels being inconstant or from flooding, high water, drought, or similar occurrence, even if any of these occurrences is caused or alleged to be caused, in whole or in part, by NTMWD, whether through NTMWD’s negligence or otherwise.

8. **NO GOODS OR SERVICES PROVIDED TO NTMWD.** The Parties agree that pursuant to this Agreement the Applicant is not providing any “good or services” to NTMWD and this Agreement is not a contract subject to Chapter 271, Subchapter I of the Texas Local Government Code because no “goods or services,” as such terms have been interpreted by courts in the State of Texas, are provided by Applicant to NTMWD pursuant to this Agreement.
9. **DAMAGE TO NTMWD-OWNED PROPERTY.** Applicant shall be liable for any and all damage that may be caused to NTMWD-owned property by the Activity of Applicant under this Agreement and shall exercise due diligence in the protection of all property located on NTMWD-owned property against fire or damage from any and all other causes. Any property of NTMWD damaged or destroyed by Applicant incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by Applicant to a condition satisfactory to NTMWD, or at the election of NTMWD, reimbursement made therefore by Applicant in an amount necessary to restore or replace the property to a condition satisfactory to NTMWD.
10. **NTMWD’S ACCESS TO PROPERTY.** The right is reserved to NTMWD, its officers, agents, and employees to enter upon the NTMWD-owned property at any time and for any purpose necessary or convenient in connection with NTMWD work, to make inspections, to remove any material, except property of Applicant approved for use on NTMWD-owned property, and/or to make any other use of the lands as may be necessary in connection with NTMWD purposes, and Applicant shall have no claim for damages on account thereof against NTMWD or any officer, agent, or employee thereof. NTMWD’s authorized representative shall be allowed to cross Applicant’s property, as necessary, to inspect the Activity.
11. **COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS.** This Notification is subject to all applicable federal and state laws and any applicable permits, ordinances, rules, orders, and regulations of any local, state or federal governmental authority having or asserting jurisdiction, including, but not limited to, the provisions of the latest edition of the National Electrical Code (NEC). Nothing contained herein shall be construed as a waiver of any right to question or contest any such law, ordinance, order, rule, or regulation in any forum, having jurisdiction. This Notification does not authorize any injury to private property or invasion of private rights or any infringement of local, state or federal laws or regulations, nor does it obviate the necessity of obtaining local, state, or federal assent required by law for the activity.
12. **RULES AND REGULATIONS.** NTMWD-owned property and associated improvements on which the Activity is undertaken shall be expressly subject to all rules and regulations promulgated by NTMWD for the Activity, including without limitation, all regulations and requirements of NTMWD, now or hereafter enacted. By signing this Notification, Applicant specifically acknowledges that it has read the applicable requirements of the Bois d’Arc Lake Rules and Regulations, the Shoreline Management Plan (“SMP”), Fannin County Comprehensive Plan, and Fannin County Zoning Regulations and agrees that Applicant’s use of NTMWD-owned property shall at all times be in compliance with such plans and regulations.
13. **EROSION CONTROL STRUCTURES.** Applicant shall maintain, in a manner satisfactory to NTMWD, all soil and water conservation structures that may be in existence upon NTMWD-owned property at the beginning of or that may be constructed by Applicant during the term of this Notification, and Applicant shall take appropriate measures to prevent or control soil erosion within

the right-of-way herein granted. Any soil erosion occurring on the NTMWD-owned property resulting from the activity authorized herein shall be corrected by Applicant as directed by NTMWD.

14. **PERSONAL PROPERTY.** Loose personal property that has the ability to float must be stored in a secure locker or removed from NTMWD-owned property when not in use.
15. **VEGETATION.** No vegetation other than that described in this Notification will be damaged, destroyed, or removed. In no event will vegetation be disturbed to the extent the right-of-way will be subject to erosion or natural beauty destroyed. All disturbed areas shall be seeded, replanted, or given some type of equivalent protection against subsequent erosion. No change in landform such as grading, excavation or filling is authorized by this Agreement unless specifically included in the approved Activity plans and description. No vegetation planting of any kind may be done, other than that specifically prescribed. Only native species are allowed. An approved native plant list is provided in the SMP.
16. **VEGETATION MODIFICATION.** When vegetation modification is approved to control or remove invasive plants and is authorized by chemical means, the modification will be in accordance with appropriate federal, state, and local laws, rules, and regulations.
17. **PROHIBITED ITEMS.** Treated landscape timbers or the storage, transfer or use of hydrocarbons or other petrochemical products, paint, pesticides, herbicides, or any other toxic or hazardous materials are not allowed on the NTMWD-owned property.
18. **POLLUTION PREVENTION.** Within the limits of their respective legal powers, the Parties hereto shall protect NTMWD-owned property against pollution of its air, ground, and water. Applicant shall promptly comply with any laws, regulations, conditions, or instructions affecting the activity hereby authorized if and when issued by the Environmental Protection Agency, the United States Army Corps of Engineers, Texas Commission on Environmental Quality, or any federal, state, or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within NTMWD-owned property is strictly prohibited. Such regulations, conditions, or instructions in effect or prescribed by the said Environmental Protection Agency, the United States Army Corps of Engineers, Texas Commission on Environmental Quality, or any federal, state, or local governmental agency are hereby made a condition of this Notification. The Applicant shall not discharge waste or effluent from the Activity in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.
19. **PESTICIDES AND HERBICIDES.** The use of any pesticides or herbicides within the Applicant property and NTMWD-owned property shall be in conformance with all applicable federal, state, and local laws and regulations.
20. **ENVIRONMENTAL IMPACT.** Applicant will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs arising from the Activity, Applicant shall be liable to restore the damaged resources.
21. **CULTURAL RESOURCES.** The Applicant shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural, or other cultural artifacts, relics, remains, or objects of antiquity on NTMWD-owned property. In the event such items are discovered

on NTMWD-owned property, Applicant shall immediately notify NTMWD and protect the site and material from further disturbance until NTMWD authorizes any further activity.

22. **OTHER PERMITS REQUIRED.** This Notification is effective only insofar as the rights of NTMWD in the NTMWD-owned property are concerned, and Applicant shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this Notification does not eliminate the necessity of obtaining any other permit or license that may be required by federal, state, or local statute in connection with use of the NTMWD-owned property, including, but not limited to, any permits or authorization from the United States Army Corps of Engineers to ensure compliance with the Clean Water Act.
23. **SANITATION.** Applicant shall take all necessary action to maintain NTMWD-owned property in a clean and sanitary manner, removing promptly and regularly trash and garbage from the said area.
24. **UNAUTHORIZED ACTIVITIES.** This **authorization** does not cover unauthorized burning, pesticide or fertilizers use on NTMWD-owned property, or placement or storage of personal property on NTMWD-owned property.

EFFECTIVE DATE AND TERM

This Notification becomes effective on the date this Notification is executed by NTMWD (the “Effective Date”) and will be valid for 20 days after the Effective Date.

SIGNATURE

I, the Applicant, understand, accept, and agree to comply with all conditions contained in this Natural Resource Management Notification. I certify that the information provided above on this form and all attachments related to this project are true and accurate to the best of my knowledge. I will not commence any work proposed in this notification until I have received an acknowledgement from NTMWD of this Notification. I understand that failure to provide true and accurate information or to comply with the conditions of this Notification may result in termination of permission to conduct the activity on NTMWD-owned property and that I may be subject to penalties and fines. I understand that if I undertake an activity or implement a project that differs from the authorized Activity described in this Notification, I will be subject to penalties and fines.

(Signature of Applicant)

(Date)

(Printed Name of Applicant)

(Date)

(Signature of Applicant)

(Date)

(Printed Name of Applicant)

(Date)

Appendix C-4
Mobility Assistance Vehicle (MAV)
Agreement



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**Mobility Assistance Vehicle (MAV) Agreement
Application Form**

MOBILITY ASSISTANCE VEHICLE (MAV) AGREEMENT APPLICATION
Bois d’Arc Lake, North Texas Municipal Water District (NTMWD)

APPLICANT INFORMATION

Date of Application: _____ Address: _____

Name of Applicant: _____

Telephone: (_____) _____ City, State, Zip Code: _____

E-mail Address: _____

ADDITIONAL INFORMATION

Agreement number for approved dock facility: _____

Type/model of vehicle (*must be a golf cart, ATV, or UTV*): _____

License plate number (if applicable): _____

If you are applying for this authorization on behalf of another person, please provide name of user and relationship to applicant: _____

ATTACHMENTS to be included with Authorization Application

- Proof of land ownership (e.g. warranty deed) that is immediately adjacent to and shares a common boundary with NTMWD-owned property.
- Map or plan of the site showing location of access path.
- Brief description of how soil erosion will be prevented.

Note: NTMWD reserves the right to alter this form or to request additional information not specified in this form.

APPLICATION FEE

See Fee Table. Application fee submitted _____

Please review the conditions that are required of all MAV Agreements as found in the SMP. General conditions for MAV Agreements are found in **Appendix C** of the SMP. The general conditions would be applied to all MAV Agreements. Additional site-specific conditions may be developed following review of your application.

SIGNATURE

I certify that the information provided on this form and all attachments related to this Application are true and accurate to the best of my knowledge. I understand that failure to provide true and accurate information may result in the Application being denied or a previously approved Agreement being terminated.

(Signature of Applicant/Adjacent Landowner) _____
(Date)

(Printed Name of Applicant/Adjacent Landowner) _____
(Date)

(Signature of Applicant/Adjacent Landowner) _____
(Date)

(Printed Name of Applicant/Adjacent Landowner) _____
(Date)

Mobility Assistance Vehicle Agreement Agreement Template

**MOBILITY ASSISTANCE VEHICLE (MAV) AGREEMENT
NORTH TEXAS MUNICIPAL WATER DISTRICT
BOIS D'ARC LAKE**

MAV Agreement

This Mobility Assistance Vehicle (“MAV”) Agreement (the “Agreement”) is entered into by and between the North Texas Municipal Water District (“NTMWD”), a conservation and reclamation district created under Article 16, Section 59, of the Texas Constitution, and _____, a/an _____ (“User”). NTMWD and User may also be referred to individually as a “Party” or collectively as the “Parties.”

Recitals

WHEREAS, NTMWD and User are authorized to enter into this Agreement pursuant to Chapter 62, Acts of the 52nd Legislature, 1951 (Article 8280-141, Vernon's Texas Civil Statutes) and other applicable laws;

WHEREAS, NTMWD operates Bois d’Arc Lake (the “Lake”) as a public drinking water supply reservoir and allows opportunities for public recreation on the Lake;

WHEREAS, User owns land adjacent to NTMWD-owned property at the Lake (the “Property”) and seeks to operate a MAV on the adjacent NTMWD-owned property (the “Leased Property”);

WHEREAS, User acknowledges there may be a Permanent Flowage and Flood Easement (the “Easement”) associated with the Property, on land located between the 541 mean sea level (“MSL”) and 545 MSL contour elevations.

WHEREAS, User is aware the conditions of the Easement are permanently in effect and are separate from the requirements and conditions of this agreement and the Shoreline Management Plan (“SMP”);

WHEREAS, this Agreement may authorize certain uses of the Easement, in addition to uses of NTMWD Property, which shall not be inconsistent with conditions of the Easement, but may impose further restrictions on the Easement, for which the User agrees to comply with, in accordance with the terms of this Agreement;

WHEREAS, User notified NTMWD that User intends to use the MAV on the Leased Property as described herein;

WHEREAS, NTMWD has reviewed the User’s application for a MAV Agreement;

WHEREAS, User has reviewed this Agreement and accepts its terms and conditions, including the general and special conditions described herein;

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, NTMWD agrees to grant User the right to operate a MAV on NTMWD-owned property, and User agrees to pay for such a use, upon the terms and conditions and the consideration hereinafter set forth, to wit:

User Information

Name:

Telephone, Area Code, and Number

Email:

Address:

City, State, Zip Code:

MAV Use Description and Location

MAV Use Impacts

General Conditions

1. **REFERENCES.** Except as otherwise specifically provided, any reference herein to NTMWD shall include its duly authorized representatives. Any reference to “User” shall include their duly authorized representatives.
2. **AGREEMENT FEES.** The User shall pay, in advance, to NTMWD, compensation in accordance with the most recent approved NTMWD Fee Schedule as attached to this agreement. Fees are subject to change upon renewal of the Agreement.
3. **AGREEMENT SCOPE.** This Agreement is entered into solely with the User for the purpose described in this Agreement. The exercise of the privileges herein granted shall be:
 - without cost or expense to NTMWD.
 - subject to the right of NTMWD to improve, use, or maintain NTMWD-owned property.
 - subject to other outgrant’s of NTMWD on NTMWD-owned property.
 - personal to the User and this Agreement, or any interest therein, may not be transferred or assigned. Upon the sale or other transfer of the Property or the death of User and his/her legal spouse, this Agreement is null and void.
4. **NOTICE.** Notices to be given pursuant to this Agreement shall be addressed, if to User, the same as recited on the Application for MAV Use, and if to NTMWD, to _____ or as may from time to time otherwise be directed by the parties. Notice shall be deemed to have been duly given if and when enclosed in a properly-sealed envelope or wrapper addressed as aforesaid, and deposited postage prepaid in a post office regularly maintained by the United States Postal Service.
5. **USER’S REPRESENTATIONS.** User further represents that s/he will not be in violation of any regulations or restrictions imposed by Fannin County, Texas or the City of Bonham, Texas or by any deed restrictions that may be attached to the Property and that any required variance has been secured. NTMWD assumes no responsibility for, and User will hold NTMWD harmless from, disputes of title, rights, or liability for damages to persons or property arising from MAV use. If at any time, MAV use interferes with the operation of the Lake or the safety of persons or property using the surface thereof, User agrees to immediately make any and all changes or corrections necessary to make the MAV use comply with this Agreement.
6. **RELEASE & ASSUMPTION OF RISK.** User acknowledges that the Lake is not a “constant level” or “controlled level” lake and is **SUBJECT TO DROUGHT OR FLOODING WITHOUT WARNING.** User recognizes the risk inherent in undertaking MAV use in close proximity to, the Lake because of the risks associated with flooding, high water, and drought conditions. As a condition of, and in consideration for, NTMWD’s entering into this Agreement, as between NTMWD and User, User **AGREES TO ASSUME ALL RISK** of destruction of or damage to any MAV and the property of User or third parties located on NTMWD-owned property or User property and to assume all risk of bodily injury or death to any person on NTMWD-owned property or User property associated with MAV use resulting from any cause. As part of the assumption of risk, User, for itself and its heirs and assigns, **EXPRESSLY RELEASES NTMWD FROM ALL LOSS, COSTS, AND LIABILITY FOR (1) DAMAGE OR DESTRUCTION TO ANY OF ITS PROPERTY**

LOCATED ON OR AT NTMWD-OWNED PROPERTY OR THE USER PROPERTY RESULTING FROM ANY CAUSE AND (2) BODILY INJURY OR DEATH TO USER OR ANY FAMILY MEMBER OR OTHER PERSON AT THE NTMWD-OWNED PROPERTY OR THE USER PROPERTY RESULTING FROM ANY CAUSE.

7. **INDEMNIFICATION.** NTMWD shall have no liability whatsoever, either to User, User's guest invitees or any other third party, for property damage resulting from MAV use, including facilities supporting MAV use (e.g. footpaths), **EVEN IF CAUSED BY THE NTMWD'S NEGLIGENCE.** NTMWD shall not be liable to User or User's guests, visitors, invitees or to any other person whomsoever, for any injury to person or damage to property on or about NTMWD-owned property or User property for **ANY CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION, INUNDATION OR FLOODING OF THE NTMWD-OWNED PROPERTY OR THE EFFECTS OF DROUGHT,** and User agrees to indemnify NTMWD and hold it harmless from any loss, expenses, or claims including attorney's fees, arising out of any such damage of injury, **INCLUDING INJURY TO PERSON OR DAMAGE TO PROPERTY THE SOLE OR CONTRIBUTING CAUSE OF WHICH IS THE NEGLIGENCE OF NTMWD.** If any action or proceeding is brought against NTMWD by reason of any such claim, User, upon notice from NTMWD, will defend such action or proceeding with counsel acceptable to NTMWD.
8. **WAIVER OF ANY TAKINGS CLAIM.** User **WAIVES ANY CLAIM IT MAY NOW OR IN THE FUTURE HAVE AGAINST NTMWD FOR A STATE OR FEDERAL "TAKINGS" or "INVERSE CONDEMNATION"** of the User improvements on NTMWD-owned property where MAV use occurs resulting from Lake levels being inconstant or from flooding, high water, drought, or similar occurrence, even if any of these occurrences is caused or alleged to be caused, in whole or in part, by NTMWD, whether through NTMWD's negligence or otherwise.
9. **NO GOODS OR SERVICES PROVIDED TO NTMWD.** The Parties agree that pursuant to this Agreement the User is not providing any "good or services" to NTMWD and this Agreement is not a contract subject to Chapter 271, Subchapter I of the Texas Local Government Code because no "goods or services," as such terms have been interpreted by courts in the State of Texas, are provided by User to NTMWD pursuant to this Agreement.
10. **DAMAGE TO NTMWD-OWNED PROPERTY.** User shall be liable for any and all damage that may be caused to NTMWD-owned property by the activities of User under this Agreement and shall exercise due diligence in the protection of all property located on the NTMWD-owned property against fire or damage from any and all other causes. Any property of NTMWD damaged or destroyed by User incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by User to a condition satisfactory to NTMWD, or at the election of NTMWD, reimbursement made therefore by User in an amount necessary to restore or replace the property to a condition satisfactory to NTMWD.
11. **NTMWD'S ACCESS TO LEASED PROPERTY.** The right is reserved to NTMWD, its officers, agents, and employees to enter upon NTMWD-owned property at any time and for any purpose necessary or convenient in connection with NTMWD work, to make inspections regarding MAV use, to remove any material, except property of User approved for use on NTMWD-owned property, and/or to make any other use of the lands as may be necessary in connection with NTMWD purposes, and User shall have no claim for damages on account thereof against NTMWD or any officer, agent, or employee thereof. NTMWD's authorized representative shall be allowed to cross User's property,

as necessary, to inspect MAV use. NTMWD will notify User of any deficiencies noted and will establish a schedule for their correction. Notwithstanding the foregoing, if NTMWD determines during an inspection that a noncompliance issue concerns a significant imminent threat to the environment or public health, safety, and general welfare, NTMWD may take whatever action necessary within the authority of NTMWD to eliminate such threat, including but not limited to, requiring Lessee to immediately address the noncompliance issue.

12. **COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS.** This Agreement is subject to all applicable federal and state laws and any applicable permits, ordinances, rules, orders, and regulations of any local, state or federal governmental authority having or asserting jurisdiction, including, but not limited to, the provisions of the latest edition of the National Electrical Code (NEC). Nothing contained herein shall be construed as a waiver of any right to question or contest any such law, ordinance, order, rule, or regulation in any forum, having jurisdiction. This Agreement does not authorize any injury to private property or invasion of private rights or any infringement of local, state or federal laws or regulations, nor does it obviate the necessity of obtaining local, state, or federal assent required by law for MAV use.
13. **RULES AND REGULATIONS.** NTMWD-owned property and associated improvements shall be expressly subject to all rules and regulations promulgated by NTMWD for MAV use, including without limitation, all regulations and requirements of NTMWD, now or hereafter enacted. By signing this Agreement, User specifically acknowledges that it has read the applicable requirements of the Bois d'Arc Lake Rules and Regulations, the SMP, Fannin County Comprehensive Plan, and Fannin County Zoning Regulations and agrees that User's use of NTMWD-owned property shall at all times be in compliance with such plans and regulations.
14. **COMPLIANCE WITH OTHER AGREEMENTS.** The Lessee shall remain in compliance with all other agreements between the Lessee and NTMWD including, but not limited to, compliance with other agreements related to shoreline activities and applicable Flowage and Flood Easements. Non-compliance with any other NTMWD agreement, contract, lease, or easement shall be considered non-compliance with this Agreement.
15. **SOIL AND WATER CONSERVATION STRUCTURES.** User shall maintain, in a manner satisfactory to NTMWD, all soil and water conservation structures that may be in existence upon NTMWD-owned property at the beginning of or that may be constructed by User during the term of this Agreement and User shall take appropriate measures to prevent or control soil erosion within the right-of-way herein granted. Any soil erosion occurring NTMWD-owned property resulting from the use shall be corrected by User as directed by NTMWD.
16. **TRANSFER OF INTEREST.** Uses authorized under this Agreement will not be transferred. If ownership of the Property is transferred, this Agreement is not transferrable to the new owner of the Property. If ownership of improvements authorized by separate Shoreline Lease and Use Agreement(s) is sold or transferred, the new owner must apply for a new MAV Agreement if they wish to use a MAV on NTMWD-owned property.
17. **PERSONAL PROPERTY.** Loose personal property that has the ability to float must be stored in a secure locker or removed from NTMWD-owned property when not in use.

18. **AGREEMENT DISPLAY.** Authorized Users must display MAV tag or have a copy of the Agreement readily available for inspection by NTMWD when using the vehicle on NTMWD-owned property.
19. **VEGETATION.** No vegetation will be damaged, destroyed, or removed. In no event will vegetation be disturbed to the extent the right-of-way will be subject to erosion or natural beauty destroyed. All disturbed areas shall be seeded, replanted, or given some type of equivalent protection against subsequent erosion. No change in landform such as grading, excavation or filling is authorized by this Agreement. No vegetation planting of any kind may be done, other than that specifically prescribed. Only native species are allowed. An approved native plant list is provided in the SMP.
20. **PROHIBITED ITEMS.** Treated landscape timbers or the storage, transfer or use of hydrocarbons or other petrochemical products, paint, pesticides, herbicides, or any other toxic or hazardous materials are not allowed on the Leased Property.
21. **POLLUTION PREVENTION.** Within the limits of their respective legal powers, the Parties hereto shall protect NTMWD-owned property against pollution of its air, ground, and water. User shall promptly comply with any laws, regulations, conditions, or instructions affecting the activity hereby authorized if and when issued by the Environmental Protection Agency, the United States Army Corps of Engineers, Texas Commission on Environmental Quality, or any federal, state, or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within NTMWD-owned property is strictly prohibited. Such regulations, conditions, or instructions in effect or prescribed by the said Environmental Protection Agency, the United States Army Corps of Engineers, Texas Commission on Environmental Quality, or any federal, state, or local governmental agency are hereby made a condition of this Agreement. The User shall not discharge waste or effluent from the use in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.
22. **PESTICIDES AND HERBICIDES.** The use of any pesticides or herbicides within NTMWD-owned property is not allowed under this Agreement.
23. **ENVIRONMENTAL IMPACT.** User will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs arising from User's activities, including MAV use, User shall be liable to restore the damaged resources.
24. **TIMBER CLEARING.** Timber clearing is not authorized under this MAV Agreement.
25. **CULTURAL RESOURCES.** The User shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural, or other cultural artifacts, relics, remains, or objects of antiquity on NTMWD-owned property. In the event such items are discovered on NTMWD-owned property, User shall immediately notify NTMWD and protect the site and material from further disturbance until NTMWD authorizes any further activity.
26. **TERMINATION OF AGREEMENT.** By thirty (30) days written notice, mailed to User by certified letter, NTMWD may terminate this Agreement whenever necessary or when User fails to comply with any Agreement condition or term. The termination notice shall specify the reasons for such termination. User may appeal a notice of termination to NTMWD within 15 days of receiving the notice. NTMWD will respond to the User within 30 days of receiving an appeal.

27. **OTHER PERMITS REQUIRED.** This Agreement is effective only insofar as the rights of NTMWD are concerned, and User shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this Agreement does not eliminate the necessity of obtaining any other permit or license that may be required by federal, state, or local statute in connection with use of NTMWD-owned property, including, but not limited to, any permits or authorization from the United States Army Corps of Engineers to ensure compliance with the Clean Water Act.
28. **SANITATION.** User shall take all necessary action to maintain NTMWD-owned property in a clean and sanitary manner, removing promptly and regularly trash and garbage from the said area.
29. **MAV USE.** The Agreement is for the sole purpose of transporting the authorized person to a private boat dock or shoreline. Only golf carts, all-terrain vehicles (ATVS), or utility terrain vehicles (UTVs) are allowed. The MAV shall only be driven on a designated authorized path. The access path will comply with the conditions in the SMP for a pedestrian foot path except for path width, which may not exceed six (6) feet in width and must follow a meandering route. Access paths are authorized under a separate Shoreline Lease and Use Agreement.
30. **SEVERABILITY.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be considered as if such invalid, illegal, or unenforceable provision had never been contained in this Agreement.
31. **NO JOINT VENTURE.** It is acknowledged and agreed by the Parties that the terms hereof are not intended to and shall not be deemed to create any partnership or joint venture among the Parties. NTMWD, its past, present, and future officers, elected officials, employees and agents of NTMWD, do not assume any responsibilities or liabilities to any third party in connection with the improvements to, or use of, the Leased Property.
32. **ENTIRE AGREEMENT – NO ORAL MODIFICATIONS.** This Agreement embodies the entire Agreement of the Parties, superseding all oral or written previous and contemporary agreements between the Parties relating to matters set forth in this Agreement. Except as otherwise provided elsewhere in this Agreement, this Agreement cannot be modified without a written agreement executed by both Parties.
33. **NO THIRD PARTY BENEFICIARIES.** User and NTMWD enter into this Agreement solely for the benefit of themselves and agree that nothing in this Agreement shall be construed to confer any right, privilege or benefit on any person or entity other than User and NTMWD.
34. **VENUE.** It is specifically agreed among the Parties to this Agreement that Fannin County, Texas, is the place of performance of this Agreement; and, in the event that any legal proceeding is brought to enforce this Agreement or any provision hereof, the same shall be brought in Fannin County, Texas.
35. **ADOPTION OF PREAMBLE AND EXHIBITS.** All of the statements in the preamble and all of the exhibits of this Agreement are true and correct and are hereby incorporated into the body of this Agreement as though fully set forth in their entirety herein.

SPECIAL CONDITIONS *(To be completed for each project)*

VIOLATIONS AND PENALTIES

1. User will be held accountable to the conditions outlined herein. If a violation is identified, NTMWD will follow the steps outlined below:

First Notice: NTMWD will generally issue a written warning notifying User of the violation, outlining actions to correct the violation, and providing a resolution timeframe. Depending on the non-compliance issue (e.g. is the issue an imminent health or safety concern), the time provided for resolution and the degree to which NTMWD may step in and proactively correct an issue may vary. Some violations may immediately generate a fine. NTMWD may, at its discretion, waive fines to be imposed at the first notice. NTMWD will follow up within the specified timeframe to document resolution of the issue. Increased frequency of monitoring and inspection may be warranted for a period of time following resolution.

Second Notice: A second notice may involve the same activity or conditions as the first notice, or it may be a new issue. Second notices for the same situation that triggered the first notice will also be linked to increased fees and shorter resolution timeframes. Users will be required to reimburse NTMWD for costs associated with monitoring, inspection, and follow-up for second notice actions.

Third Notice: Three notices for the same or different instances of non-compliance with this Agreement within one year will trigger a notice to revoke terminate this Agreement. User will have 10 days to remove MAV and access path at his or her expense and restore NTMWD-owned property to its condition prior to the authorization of MAV use (if applicable). User may appeal a notice of termination to NTMWD within 15 days of receiving the notice. NTMWD will respond to the User within 30 days.

2. Resolution timeframes and fees are dependent on the harm that may occur to people, property, and resources if the violation were to continue. Violations that are hazardous, or potentially hazardous, generally have shorter resolution timeframes and higher penalties than administrative violations. **Attachment A** outlines resolution timeframes, remedies, and fines for various violations that may be related to MAV use.

EFFECTIVE DATE AND TERM

This Agreement becomes effective on the date this Agreement is signed by both parties (“The Effective Date”) and will be valid for five (5) years after the date of this signature. This Agreement will expire on

_____.

AUTHORIZATION

This Agreement authorizes the activity described herein. If User undertakes activities or implements a project that differs from the authorized activity, User will be subject to penalties and fines, described in this Agreement, and potentially termination.

EXECUTION

The Parties hereto acting under their respective authorities have caused this Agreement to be duly executed in several counterparts, each of which shall constitute an original.

SIGNATURES

The undersigned accepts and agrees to comply with all conditions contained in this Authorization.

(Signature of User) (Date)

(Signature of User) (Date)

(Printed Name of User)

(Printed Name of User)

STATE OF TEXAS §

COUNTY OF FANNIN §

This instrument was acknowledged before me on this ____ day of _____, 20__, by _____.

Notary Public, State of Texas

(Signature of NTMWD Representative)

(Date)

(Printed Name of NTMWD Representative)

(Date)

STATE OF TEXAS

§

COUNTY OF FANNIN

§

This instrument was acknowledged before me on this _____ day of _____, 20__, by _____.

Notary Public, State of Texas

Attachment A**MAV Authorization Violations, Remedies, and Penalties**

Violation	Violation Category	Remedy	Resolution Time Frame (days) <i>First Notice</i>	Resolution Time Frame (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Unauthorized burning	Major	Immediately stop unauthorized burning and remove debris from NTMWD-owned property	1	N/A	200	N/A
Storage or placement of fuel, oil, treated landscape timbers, pesticides, or other hazardous materials on docks or NTMWD-owned property	Major	Remove hazardous materials from NTMWD-owned property and store in secure location on private property	5	3	N/A	200
Unauthorized use of pesticides/fertilizers on NTMWD-owned property	Major	Stop unauthorized use of pesticides and report changes in water quality (e.g. algal blooms and/or dead fish) to NTMWD	1	N/A	200	N/A
Unauthorized placement or storage of personal property on NTMWD-owned property and/or water	Major	Remove personal property from NTMWD-owned property and store in a secure private location	5	3	N/A	200
Unauthorized access path construction	Major	Stop construction and restore area to pre-violation conditions	15	10	200	200
Emerging erosion issues (signs may include shoreline recession, increased water turbidity and discoloration in the surrounding area, bare soil, exposed plant roots, and unstable banks)	Major	Stop erosion producing activity and install erosion control devices and/or plant native vegetation	30	15	200	200
Unauthorized use of a mobility assistance vehicle	Major	Stop unauthorized use, restore area to pre-violation conditions (if applicable)	15	10	N/A	200
Failure to restore the leased area after completion of an authorized activity or after the user damages the area	Moderate	Restore area to pre-authorization conditions (e.g., restore vegetation)	30	15	N/A	200/week
Failure to display MAV tag or have a copy of the agreement with the MAV during use on NTMWD-owned property	Minor	Display MAV tag or carry agreement according to authorization conditions	1	1	N/A	50
Failure to pay agreement fees	Minor	Pay outstanding agreement fee	30	15	N/A	50/week
Failure to renew an agreement	Minor	Apply for a new agreement and pay associated application fees	30	15	N/A	50/week
Noncompliance with applicable laws, ordinances, and regulations	NA	NTMWD reports violations to the appropriate authority for enforcement	Depends on law/regulation	Depends on law/regulation	Depends on law/regulation	Depends on law/regulation

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Appendix C-5

Electrical Certification Requirements



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Electrical Certification Requirements Bois d'Arc Lake - Shoreline Management Plan

The following represents the minimum information to be included with all agreement applications for facilities that include solar electrical service to facilities located on NTMWD-owned property.

LOCATION OF GROUND-FAULT INTERRUPTER

All wiring on NTMWD-owned property must be ground-fault protected. _____

HOW ELECTRICITY IS SUPPLIED TO FACILITY

Must be supplied by self-contained solar power system approved for wet locations. _____

TYPE AND SIZE OF WIRING

LOCATION AND TYPE OF CONDUIT

All above-ground wiring must be in approved electrical conduit. _____

CONDUIT ATTACHMENT

Must be securely attached to facility. _____

LOCATION AND TYPE OF RECEPTACLES

Land-based outlet boxes must be at 545 MSL or higher _____

LOCATION AND TYPE OF FIXTURES

The following statement must be on the plan, signed and dated by a state-certified electrician and the agreement holder:

"I certify this electrical installation is ground-fault protected and materials, workmanship and installation method meets or exceeds the current National Electrical Code standards and requirements for this type location."

Electrician

Agreement Holder

State Certification Number

Agreement Number

Date

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Appendix C-6

Boat Dock Inspection Checklist



Data Sheet	
Name: _____	Date: _____
Address: _____	
Location: _____	Agreement No: _____

Requirements					
Anchorage	Cables free from frayed or worn areas	Yes	No	N/A	Notes:
	Cables are secure and in good condition	Yes	No	N/A	Notes:
	Cable attachment points are secure	Yes	No	N/A	Notes:
	Dead-man cables are not attached to trees	Yes	No	N/A	Notes:
	Stiff arms and hardware are secure and in good condition	Yes	No	N/A	Notes:
	Mooring pilings, poles, collars, and rollers are in good condition	Yes	No	N/A	Notes:

Gangways & Walkways	No obstructions or tripping hazards	Yes	No	N/A	Notes:
	Cables are secure and in good condition	Yes	No	N/A	Notes:
	Cable attachment points are secure	Yes	No	N/A	Notes:
	Dead-man cables are not attached to trees	Yes	No	N/A	Notes:
	Stiff arms and hardware are secure and in good condition	Yes	No	N/A	Notes:
	Mooring pilings, poles, collars, and rollers are in good condition	Yes	No	N/A	Notes:

Handrails	Handrails are structurally sound, in good repair, and free of splinters	Yes	No	N/A	Notes:
	Handrails capable of withstanding 200-pound load applied in any direction at any point with minimum deflection	Yes	No	N/A	Notes:
	Gangways have at least one 42-inch-high handrail with a 20-inch guardrail below the top rail	Yes	No	N/A	Notes:
	Handrails free of modifications	Yes	No	N/A	Notes:

Superstructure	Wood and steel connections are secure with weld, sheet metal, steel plates, metal straps, or plywood gussets to resist movement that would dismantle the structure (25-lbs/sq ft wind load)	Yes	No	N/A	Notes:
	Check for neat orderly appearance of structure	Yes	No	N/A	Notes:

Roof	Check to ensure roof is securely fastened to the superstructure by use of steel plates, metal straps, or plywood gussets to resist wind uplift	Yes	No	N/A	Notes:
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Deck	Lumber and/or recycled planks are free of splits, decay, and protruding nails/screws	Yes	No	N/A	Notes:
	Lumber and/or recycled planks are free of scabbed patch to prevent tripping hazard	Yes	No	N/A	Notes:
	Metal is free of rust that would fail within one year	Yes	No	N/A	Notes:

Metal Finishes	Metal is free of excessive rust and/or damage	Yes	No	N/A	Notes:
	Paint in need of touch-up	Yes	No	N/A	Notes:

Flotation	Flotation material is expanded, encased, and/or encapsulated	Yes	No	N/A	Notes:
	Dock floats lift structural loads at least 8 inches out of the water. No more than 50% of the float is submerged under fully used load	Yes	No	N/A	Notes:
	Flotation is securely fastened to the dock using galvanized steel straps and/or galvanized bolts	Yes	No	N/A	Notes:
	Dock floats free of punctures and/or damage of any kind	Yes	No	N/A	Notes:

Human Habitat	Signs of human habitation on the dock. Items include refrigerators, air conditioners, cooking structures, heating appliances, toilets, and showers	Yes	No	N/A	Notes:
----------------------	--	-----	----	-----	---------------

Storage Boxes	Storage container(s) for boating equipment exceeds 8-ft-long, 3-ft wide, and 2.5-ft high	Yes	No	N/A	Notes:
	Storage of chemicals and/or flammable liquids (prohibited)	Yes	No	N/A	Notes:

Appendix C-7

Certificate of Compliance



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Certificate of Compliance

Bois D’Arc Lake – Shoreline Management Plan

Shoreline Use Agreement #: _____ Date of Inspection: _____

Agreement Holder Name: _____

Address: _____

Phone Number: _____



This will certify that all deficiencies identified during the (Inspection Type and Date) by NTMWD personnel on the above date, have been corrected and all private facilities located on NTMWD-owned property and/or over water meet all current Shoreline Management Plan requirements.

Termination date of Shoreline Lease and Use Agreement is _____.

NTMWD Authorized Staff Signature

Date

Printed Name

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Appendix C-8

Appeals Form



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SHORELINE LEASE AND USE AGREEMENT APPEAL FORM
Bois d’Arc Lake, North Texas Municipal Water District (NTMWD)

All appeals must be submitted in writing within 15 days of receiving a notice of denial or revocation of an existing agreement. Standard Conditions of the lease and use agreements as found in Appendix C of the Shoreline Management Plan (SMP) may not be appealed.

APPLICANT INFORMATION

Date of Appeal: _____ E-mail Address: _____
 Date of Original Application: _____ Address: _____
 Date of Notice of Denial: _____ City, State, Zip Code: _____
 Name of Applicant: _____ Telephone: (_____)_____

TYPE OF APPEAL (check one or more as appropriate)

- Appeal of denial or special conditions on a shoreline lease and use agreement
- Appeal of revocation of agreement

TYPE OF FACILITY (check one or more as appropriate)

Water-Based:

- Single-Owner Boat Dock
- Community Boat Dock
- Other/Exception (describe):

Land-Based:

- Vegetation Modification (including clearing standing timber)
- Land-based Recreational Facilities
- Access Path
- Other/Exception (describe):

REASON FOR THE APPEAL

Please provide a description of why you believe the proposed use conforms to NTMWD standards, goals, and guidelines of the Bois d’Arc Lake SMP.

COMPLIANCE PLAN FOR REVOKED AGREEMENTS *(if applicable)*

Please explain how the proposed project or use will be brought into compliance with NTMWD standards, goals, and guidelines of the Bois d’Arc Lake Shoreline Management Plan (SMP).

APPEAL FEE

See Fee Table. Appeal fee submitted to _____

SIGNATURE

I certify that the information provided on this form and all attachments related to this project are true and accurate to the best of my knowledge.

(Signature of Appellant)

(Date)

(Printed Name of Appellant)

(Date)

(Signature of Appellant)

(Date)

(Printed Name of Appellant)

(Date)

Appendix D Fee Schedule



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Appendix D

Fee Schedule

Agreement Type	Activity/Facility	Application Fee (\$)	Annual Fee	Incentives/Additional Information
Shoreline Lease and Use Agreement	Dock/overwater structure	Application/First Year: \$750.00	\$325 for years 2 through 5 of a 5-year agreement	All shoreline use activities/facilities will be combined on one permit. Only the higher fee identified will be assessed. If erosion control or stormwater runoff treatment BMPs are provided supplementary to any required erosion control; an incentive reduction of 50 percent of the annual fee may be applied.
Shoreline Lease and Use Agreement	Vegetation modification	\$500	N/A	
Shoreline Lease and Use Agreement	Other (access paths, non-bioengineered structures for erosion control, land-based facilities, etc.)	\$500	N/A	
Shoreline Lease and Use Agreement	Modification fee	50-100 percent of the original application fee	N/A	
Shoreline Lease and Use Agreement	Renewal Fee	50 percent of the original application fee	See note	The \$325 annual fee for an agreement for a dock is applied to each subsequent 5 year agreement.
Shoreline Lease and Use Agreement	Appeal or Revocation of Agreement	\$250	N/A	
Shoreline Lease and Use Agreement	Appeal or Denial of Agreement Conditions	\$100	N/A	
Shoreline Lease and Use Agreement	Standing timber removal below 534 MSL contour (not to exceed 0.5 acres)	\$250	N/A	Not to exceed 0.5 acres of standing timber below the 534 MSL contour. (ONLY issued in conjunction with a Shoreline Use Agreement for a Dock and with necessary approvals from NTMWD and USACE; \$250 fee is in addition to the agreement fees for a dock.)

Agreement Type	Activity/Facility	Application Fee (\$)	Annual Fee	Incentives/Additional Information
Special Event/Temporary Use Agreement	25+ persons or vessels involved in an event	\$150	N/A	Short term uses that do not involve construction or installation of permanent facilities.
Natural Resource Management Notification	Hazard tree removal	\$0	N/A	
Natural Resource Management Notification	Planting/restoring native vegetation	\$0	N/A	Environmentally sustainable activities
Natural Resource Management Notification	Invasive/noxious weed removal/control	\$0	N/A	May include the use of herbicides to control noxious/invasive plants.
Legal Non-conforming Use Authorization	Non-conforming use	\$0	N/A	No fee will be assessed for any Grandfathered Activities/Facilities included in land sale agreements.
Mobility Assistance Vehicle Agreement	Allows for 6-foot-wide path and use of approved motorized vehicle	\$25	N/A	

Appendix E

Remedies and Penalties for Violations



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Appendix E

Remedies and Penalties for Violations

Violation	Violation Category	Remedy	Resolution Timeframe (days) <i>First Notice</i>	Resolution Timeframe (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Unauthorized burning	Major	Immediately stop unauthorized burning and remove debris from NTMWD-owned property	1	N/A	200	N/A
Storage or placement of fuel, oil, treated landscape timbers, pesticides, or other hazardous materials on docks or NTMWD-owned property	Major	Remove hazardous materials from NTMWD-owned property and store in secure location on private property	5	3	N/A	200
Unauthorized use of pesticides/fertilizers on leased property	Major	Stop unauthorized use of pesticides and report changes in water quality (e.g., algal blooms and/or dead fish) to NTMWD	1	N/A	200	N/A
Unauthorized placement or storage of personal property on NTMWD-owned property and/or water	Major	Remove personal property from NTMWD-owned property and store in a secure location on private property	5	3	N/A	200
Unauthorized use of private overwater facility (e.g., human habitation on boat dock, storing nonauthorized vessels or watercraft at an approved boat dock, subletting boat dock)	Major	Stop unauthorized use and restore facility to post-violation conditions (e.g., remove evidence of human habitation from boat dock)	15	10	200	200
Unauthorized dock structure or dock modification	Major	Stop construction (if applicable) and restore facility to pre-violation conditions	15	10	200	200

Violation	Violation Category	Remedy	Resolution Timeframe (days) <i>First Notice</i>	Resolution Timeframe (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Unauthorized vegetation modification (e.g., removing vegetation outside of an authorized area, changing landform, planting unauthorized plants)	Major	Stop violation and restore to pre-violation conditions (e.g., replant with authorized native plant species)	30	15	200	200
Deviation from approved dock construction plans (e.g., construction materials, anchoring methods, etc.)	Major	Reconstruct dock to conform to approved construction plans	30	15	N/A	200
Unauthorized access path construction	Major	Stop construction and restore area to pre-violation conditions	15	10	200	200
Emerging erosion issues (signs may include shoreline recession, increased water turbidity and discoloration in the surrounding area, bare soil, exposed plant roots, and unstable banks)	Major	Stop erosion producing activity and install erosion control devices and/or plant native vegetation	30	15	200	200
Unauthorized use of a mobility assistance vehicle	Major	Stop unauthorized use, restore area to pre-violation conditions (if applicable)	15	10	N/A	200
Failure to delineate the NTMWD boundary line	Moderate	Delineate and mark the NTMWD boundary line using methods approved in the Shoreline Management Plan	15	10	N/A	200
Failure to restore the leased area after completion of a permitted activity or after the lessee damages the area	Moderate	Restore area to pre-lease conditions (e.g., restore vegetation, install erosion control measures such as water bars and vegetated swales)	30	15	N/A	200/week

Violation	Violation Category	Remedy	Resolution Timeframe (days) <i>First Notice</i>	Resolution Timeframe (days) <i>Second Notice</i>	Fine (\$) <i>First Notice</i>	Fine (\$) <i>Second and Third Notices</i>
Failure of new adjacent landowner to apply for shoreline use agreement for existing uses within 30 days or to restore the use area within 60 days from the date of ownership transfer	Moderate	Apply for a new Shoreline Lease and Use Agreement or restore the use area	30	15	N/A	200/week
Failure to display agreement tags on authorized facilities	Minor	Display agreement tags according to agreement conditions and Shoreline Management Plan requirements	30	15	N/A	50/week
Failure to have MAV display tag affixed to vehicle or a copy of the agreement with the mobility assistance vehicle during use on NTMWD-owned property	Minor	Affix MAV display tag to vehicle or carry agreement according to authorization conditions	1	1	N/A	50
Failure to pay agreement fees	Minor	Pay outstanding agreement fee	30	15	N/A	50/week
Failure to renew an agreement	Minor	Apply for a new agreement and pay associated application fees	30	15	N/A	50/week
Failure to complete construction within allowed time limit	Minor	Apply for new agreement and pay associated application fees	30	15	N/A	50/week
Noncompliance with applicable laws, ordinances, and regulations	NA	NTMWD reports violations to the appropriate authority for enforcement	Depends on law/regulation	Depends on law/regulation	Depends on law/regulation	Depends on law/regulation

NTMWD = North Texas Municipal Water District; N/A = not applicable; SMP = Shoreline Management Plan

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Appendix F Implementation Standards, Guidelines, and Application Requirements



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1. Introduction

This document provides direction on the implementation of the Bois d'Arc Lake Shoreline Management Plan (SMP). Standards for boat docks, overwater structures without motorized boat moorage, land-based structures, and erosion control measures are provided. Construction, operation, and maintenance of all overwater structures is subject to the terms and conditions of the applicable Shoreline Lease and Use Agreement. These guidelines include the submittal requirements (**Appendix F, Section 7**) for a Shoreline Lease and Use Agreement application. This document supplements but does not replace the requirements found in the SMP.

This appendix is intended to assist private parties and their respective engineers and contractors in preparing a design and an application for a Shoreline Lease and Use Agreement that will meet NTMWD requirements. Interested parties must complete a Shoreline Lease and Use Agreement application (refer to **Appendix C-1** of the SMP) and attach all supporting documentation (see Section 8 in this Appendix [**Appendix F**]). Applications must incorporate the appropriate standards from all applicable sections in this appendix and the SMP that are relevant to the proposed use(s). For example, a single application may need to demonstrate compliance with the standards for a boat dock, erosion control measures, vegetation modification, and an access path. Interested parties should also refer to the application process described in the **SMP, Section 6**.

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2. Standards for Boat Docks

This section supplements and provides additional detail on the acceptable dock standards in Section 5, Dock Standards, of the SMP. All boat docks will also require shoreline erosion control measures (refer to **SMP Section 4.6** and **Appendix F, Section 6.**)

All designs must be signed and stamped by a professional engineer licensed in the State of Texas. All construction must follow all other federal, state, and local laws and NTMWD policies and regulations. Responsibility for adherence to engineering standards and the standards for docks as described below rests with the lessee.

Location of the NTMWD property boundary must be clearly marked and projected side yard lines for lease use area identified at 534 feet MSL by a licensed surveyor before completion of the agreement application process (**SMP Section 4.2.5**).

Dock structures must be installed by a competent contractor with demonstrated experience in the construction of the particular proposed structure. The contractor will provide the Applicant written instructions on the care of the dock and any associated structures or amenities. A copy of the instructions will be attached to the agreement application. NTMWD maintains contractor eligibility requirements including registration in MGO Connects and insurance.

2.1 Type of Dock

Fixed or Floating Pole only; floating docks are not allowed (refer to **SMP Appendix B**).

2.2 Location

1. **SMP Zone** – Entire facility may only be placed in Dock Capable shoreline zones. Not all Dock Capable shoreline may be suitable for docks and suitability will be determined on a site-by-site basis (refer to **SMP Appendix A**).
2. **Access** – Applicant must own property immediately adjacent to the NTMWD property; must share a common boundary with Dock Capable zoned shoreline; physical properties of the shoreline must allow for reasonable access for regular maintenance. Obvious access limitations or safety issues, such as a bluff or severe slope, could preclude approval (refer to **SMP Section 5.1.1**; also refer to **Appendix F, Section 4.2.2** and **Section 8.6**).
3. **Position on Shoreline** –
 - a. Maximum Distance from Shore – May extend no more than 120 feet from the 534 above mean sea level (MSL) contour including the gangway (**Appendix F, Section 2.6**), dock, and any supported walkway combined. Additional requirements are applicable in cove areas (see 2.2(c)(iii) and 2.2(g) below and refer to **SMP Section 5.2.8**).
 - b. Spacing (refer to **SMP Section 5.2.2**) –
 - i. East of FM 897 Bridge, docks must be a minimum 100 feet from another dock (closest points side to side);
 - ii. West of FM 897 Bridge, docks must be a minimum of 200 feet from another dock (closest points side to side);
 - iii. All docks shall be no closer than 100 feet end to end across a cove.

- c. Distance from Projected Side Yard Line –
- i. NTMWD will review projected side yard lines for an equitable distribution of shoreline frontage. As described in **SMP Section 4.6**, the projected side yard line is a continuation of the adjacent private property boundary from the 541 MSL contour to the shoreline. The line is used for planning purposes to define the shoreline area where the adjacent property owner may request approval to construct docks and other shoreline amenities within the NTMWD-owned property. The line that is extended to the 534 feet MSL contour may be drawn at an angle to account for angled shorelines or property boundaries that are not perpendicular to each other and to provide for an equitable distribution of shoreline access to adjacent property owners. The use of a projected side yard line does not confer any property rights over the NTMWD-owned land to the adjacent property owner.
 - ii. A dock may be placed adjacent to or on a projected side yard line when a mutually binding contract or covenant with the owners of the adjacent property is submitted with the application materials. A dock may not encroach on the shoreline frontage of an adjacent parcel.
 - iii. If a dock is parallel to the shore, the open end of the slip must be one and a half times the length of the slip from the adjoining frontage line to allow for boat maneuvering (e.g., if the slip is 30 feet long, then the end of the dock must be 45 feet from the side yard extension line). See Figure 1 below.
 - iv. In all cases, the required spacing between docks must be maintained.
- d. Orientation to Shore –
- i. Gangway must be perpendicular to the shoreline; dock may be perpendicular or parallel to the shoreline (refer to **SMP Section 5.2.1 and 5.2.5**). See Figure 1 below.
 - ii. When the dock is parallel to the shoreline, it must be placed such that the safe zone for boat access does not encroach on a neighboring use area, regardless of whether the neighboring area contains a dock at the time of construction (**Figure 1**).
- e. In coves – Total structure (gangway plus dock) must not extend more than 1/3 of the distance across the cove while still meeting all other size and spacing requirements (refer to **SMP Section 5.2.3**).
- f. Water Depth – Must be a minimum of 3 feet of water when the lake level is at 534 MSL at the point where the gangway and the dock meet (refer to **SMP Section 5.2.4**).
- g. Navigation – Structure may not extend into a marked navigation channel, cause a navigational hazard (e.g., blind curve), or block access to coves or other authorized docks (refer to **SMP Section 5.2.8**).
- h. Shoreline Frontage – Conditions within the primary frontage must be conducive for a dock, including but not limited to adequate water depth, land features conducive to access, protection from prevailing winds, and sufficient space between property lines and nearby structures.

2.3 Size

1. **Total size** (refer to **Table 5-1 of the SMP**):
 - a. Dock Width — maximum 60 feet; minimum 10 feet
 - b. Dock Length — maximum 60 feet; minimum 10 feet
 - c. Total Area — minimum 200 square feet; maximum 1,000 square feet (calculation excludes the gangway area)

- d. Total length of gangway and dock combined may not exceed 120 feet from the 534 MSL contour
2. **Component size** (refer to **Table 5-1 of the SMP**):
 - a. Gangway width – Minimum 3 feet wide, maximum 6 feet wide
 - b. Gangway length – Minimum length 20 feet; maximum length 60 feet
 - c. Main Dock walkway width – minimum 3 feet, maximum 6 feet
 - d. Walkway finger between slips (width) – minimum 3 feet, maximum 6 feet
 - e. Slip width – maximum 12 feet
 - f. Slip length – maximum 30 feet
 - g. Roof overhang (if a roof is proposed) – maximum 24 inches
 - h. Levels – one level only (i.e., single story)

2.4 Loading

For general information on loading refer to **Table 5-1 of the SMP**.

1. **Loads** — Loads shall be developed in accordance with Minimum Design Loads for Buildings and Other Structures American Society of Civil Engineers (ASCE) 7-16 and ASCE Manuals and Reports on Engineering Practice No. 50, Planning and Design Guidelines for Small Craft Harbors (EP-50).
2. **Dead Load** (substructure – deck, walkway, gangway) – self weight of components, minimum 30 pounds (lbs) per square foot (psf)
3. **Wind Load** (superstructure) – Developed in accordance with a 106 mph 3-second gust wind speed or a of minimum 20 psf.
 - a. Wind loading for berthed vessels to be determined in accordance with EP-50.
4. **Roof Load** (superstructure) – minimum 10 psf.
5. **Wave Action** — Structures must withstand a minimum of four (4) foot high wave action at lake levels up to 534 MSL.
6. **Live load** – to be applied uniform and on half of the dock or gangway width.
 - a. Uniform live load 40 psf and concentrated load of 500 lbs.
 - b. Gangway uniform live load 50 psf and concentrated load of 200 lbs.
7. **Vessel Impact Load** – determined in accordance with EP-50 for vessels less than 60 feet in length traveling at 3 ft/sec.
8. **Dead weight freeboard** – determined in accordance with EP-50, deck level to vary no more than 1 inch over the entire system. Minimum freeboard 12 inches.
9. **Live load freeboard** – determined in accordance with EP-50, deck level to vary no more than 1 inch per 10 feet. Minimum freeboard 6 inches.

2.5 Floatation

(see also **Appendix F, Section 2.7, "Materials"** and refer to **SMP Section 5.2.8**), if used:

1. Float and floatation material must be 100 percent warrantied for a minimum of 8 years against sinking, waterlogging, cracking, peeling, fragmenting, or loss of beads.
2. Materials must resist puncture or penetration by animals.
3. Floatation materials must be fire resistant.
4. New or recycled plastic or metal drums or non-compartmentalized air containers for encasement or floats is prohibited.

5. Sized to lift structural loads to the minimum required freeboard levels. No more than 50 percent of the float shall be submerged under fully used load.
6. See also the standards for floatation materials in **Appendix F, Section 2.7** below.

2.6 Design Elements

1. **Pole Caps** — Poles on floating pole docks shall have stops at the top and bottom to prevent bottoming out or floating off the poles.
2. **Roofs** (refer to **SMP Section 5.2.8**; roofs are optional):
 - a. Style – gabled with a single pitch; no flat roofs.
 - b. Attachment – secured to resist wind uplift.
 - c. Material – minimum 28-gauge steel or minimum 0.032 inch aluminum. No asphalt shingles allowed.
 - d. Color – brown, green, gray, or earth-tones.
 - e. Pitch — The roof shall have a minimum pitch of 3:12.
 - f. Rooftop decks of any kind are prohibited.
 - g. Solar panels may be attached to roofs.
3. **Anchorage** (refer to **SMP Section 5.2.8**):
 - a. Required to secure gangway to shore.
 - b. Anchorage to the shore may not be below 534 MSL.
 - c. Deadman or ground stakes shall be installed flush with existing grade.
 - d. Anchor cables or other securing devices may not obstruct land-based activities or boaters.
 - e. Anchor cables may not be attached to trees, stumps, power poles, guardrail posts, etc.
 - f. Anchor pins and cables must be placed to avoid damage to trees.
 - g. Anchor cable – minimum 3/8-inch-thick stainless steel cable.
4. **Gangways** (refer to **SMP Section 5.2.8**):

A gangway is an unsupported walkway spanning between fixed portions of the dock or the shoreline. The angle or slope of a gangway may vary depending on lake level. Gangways typically span more than 8 to 10 feet between supporting piers or anchor points. Walkways with supported spans less than 8 to 10 feet between supporting piers and that do not move with lake levels are not included in gangway standards.

 - a. Size — Refer to Standard Number 2.3, Size, above.
 - b. Slope — Walkways and gangways shall have a maximum slope under dead load of a 4:1 ratio to any direction at the minimum lake level the dock can accommodate (i.e., not lower than 524 MSL; the elevation at which the public boat ramps are generally inaccessible).
5. **Handrails** (refer to **SMP Section 5.2.8**):
 - a. Must be installed on at least one side of the gangway.
 - b. Installed around the perimeter of the dock (except swim docks where handrail only required on shore side)
 - c. Height – 42 inches; with middle guardrail approximately 20 inches below handrail.
 - d. Loading – 200-pound point load applied in any direction with minimum deflection.
6. **Ladders**
 - a. A fixed ladder must be attached to the side of the dock that is the farthest from the shore.
 - b. Ladders must be a minimum of 16 inches wide.

- c. Ladders must reach the lowest water level anticipated considering the site-specific conditions and the type of dock proposed.
- 7. Lifts**
- a. Personal watercraft (PWC)/jet ski lifts (including non-motorized boat lifts such as kayak lifts) are allowed but must be inside a boat slip or on the shoreline side of the dock.
 - b. Each slip may contain one lift and up to two PWC lifts may be install on the shoreside of the dock.
 - c. Used lifts from other lakes are not allowed to be installed at docks on Bois d'Arc Lake.
- 8. Swim Deck (refer to SMP Section 5.2.8):**
- a. Size – May not exceed 200 square feet; area is included in total dock size.
 - b. May not be on shoreside of dock.
 - c. Must be uncovered.
 - d. Diving boards, water slides, and elevated platforms are prohibited.
- 9. Electrical Service (refer to SMP Section 5.2.8):**
- a. On-site solar only
 - b. Electrical inspection form must be certified by a state-licensed electrician (refer to **Appendix C-5**)
 - c. Design and installation must comply with NFPA 70, 303, 307 and other relevant codes and standards.
 - d. Electrical equipment must be located above electrical datum plane as defined in NFPA 70, Article 555. Electrical connections must be a minimum of 12 inches above the deck of a pier.
 - e. Grounding and ground fault protection must be provided as defined in NFPA 70.
 - f. Signage for potential electrical shock hazard must be displayed.
- 10. Lighting (refer to SMP Section 5.2.8):**
- a. A dusk to dawn light must be attached to the end of the dock.
 - b. Lights must be fixed and not flashing.
 - c. Yellow/amber or white in color (e.g., LED bulbs less than 3,000 Kelvin meet this standard).
 - d. Red or green lights not allowed.
 - e. Light must reflect downward.
 - f. Bulbs may not be directly visible to boaters or neighboring properties.
 - g. Lighting must be shielded to prevent light trespass to adjacent properties and docks and sky glow.
 - h. Decorative lights (e.g., rope lights, string lights, party lights, holiday lights) and underwater lights are prohibited.
- 11. Reflectors**
- a. All structures shall be designed with safety reflectors to be clearly visible from three sides on the main waterside end of the structure.
 - b. Safety reflectors are required on either side of the main waterside end and along the two sides at a minimum increment of 10 feet starting at the structure's main waterside end and working back toward the shoreline.
 - c. Safety reflectors will be white, blue, or red and no less than 3 inches in diameter or square in size, kept clean, firmly attached to the structure, and maintained in good condition.

12. Enclosures/Storage (refer to **SMP Section 5.2.8**):

- a. All sides must be open; enclosed docks are not allowed.
- b. Storage Chest Size – Not to exceed 8 feet long by 3 feet wide by 2.5 feet high; minimum size for the storage of equipment necessary for recreational boating, such as oars and personal floatation devices.
- c. One storage chest per slip
- d. Minimum of 3 feet of open decking must remain on walkway for access.
- e. Location – at end of slip fingers or shore side of dock
- f. No fuel or hazardous materials storage is allowed, including treated landscape timbers, treated lumber, hydrocarbons or other petrochemical products, paint, pesticides, herbicides, or any other toxic or hazardous materials (**SMP Section 4.3.1.4, Section 5.2.8, Section 7.1.2**).
- g. Large boating accessories may be suspended in the attic space created by the roof provided the roof pitch and loading requirements for the roof are not exceeded and the lowest part of the stored items are above the lowest point of the roof overhang.

13. Pumps

- a. A recirculating pump for cleaning fish, docks, and boats may be installed.
- b. All elements of a cleaning station including pump, piping, and accessories must be fully located on the dock.
- c. Piping from the lake to the shoreline is not allowed for any purpose, including temporary hose connections.
- d. Pumps for irrigation or other land-based activities are not allowed.
- e. Pumps may not exceed a capacity of 5 gallons per minute.
- f. Raw water may be plumbed to one fish cleaning station only. It is the dock agreement holder's responsibility to see that the operation and condition of the fish cleaning station does not become a nuisance.

2.7 Materials

1. **General** — Dock must be constructed of such quality material as to withstand lake level changes and exposure to strong wind and wave action.
2. **Anchor cable** – minimum 3/8-inch-thick stainless steel cable
3. **Roof materials** — minimum 28-gauge steel or minimum 0.032 inch aluminum
4. **Deck, substructure, and superstructure** must be:
 - a. Recycled plastic, galvanized metal, or aluminum.
 - b. Pressure/chemical-treated wood not allowed.
 - c. All new materials must be used.
 - d. Must meet EPA, national, state, and local guidelines for material safety.
5. **Guide piles** may be made of concrete, steel, or reinforced plastic.
 - a. Concrete piles must be cured prior to placement in the water.
6. **Floatation**
 - a. In addition to the floatation standards described in Standard Number 2.5 above, floatation material shall be:
 - i. Extruded polystyrene, expanded polystyrene, or a copolymer of polyethylene and polystyrene and shall have a minimum density of 0.9 pounds per cubic foot, and be of consistent quality throughout the float. Beads shall be firmly fused together, and there shall be no voids inside the encasement.

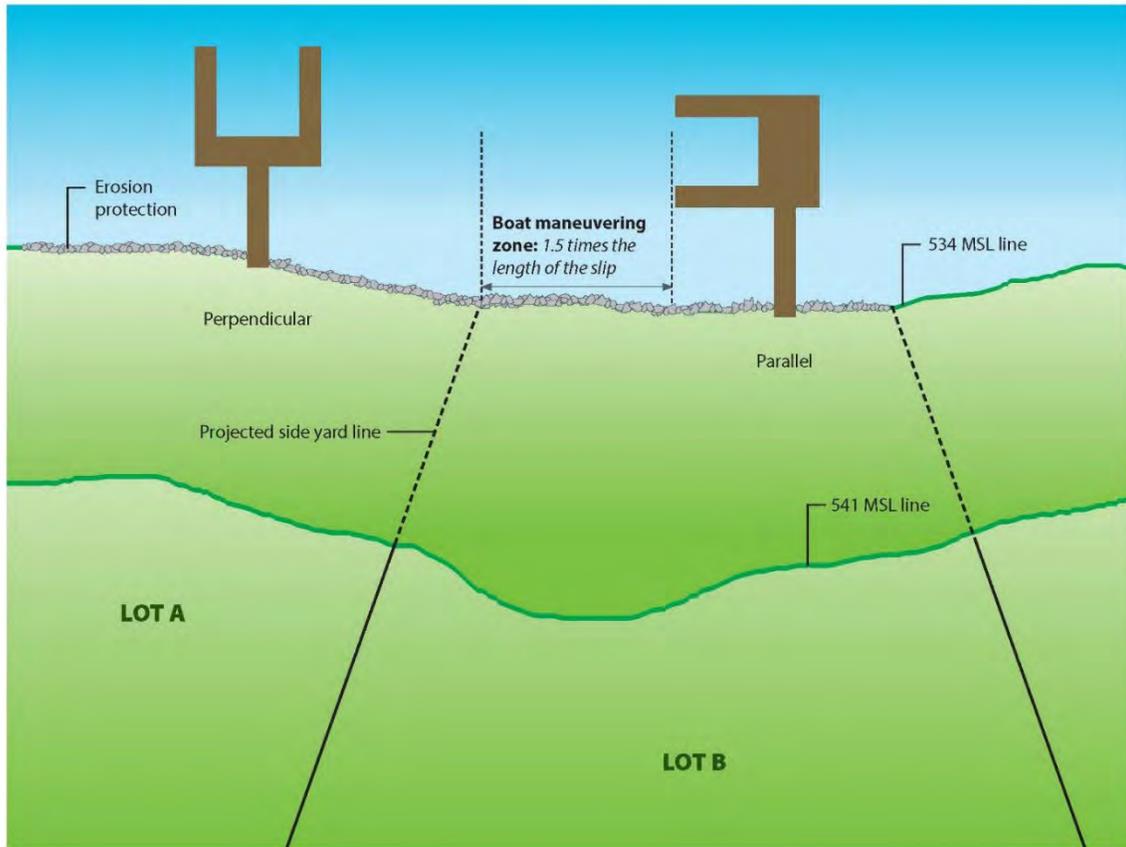
- ii. Flotation material shall have a water rate absorption of less than 3.0 pounds per cubic foot over seven (7) days when tested by the Hunt Absorption Test. Other flotation material may be considered if it meets all of the requirements set forth in these standards.
 - iii. Encased in solid polyethylene or a polyurethane type coating, both of which shall be watertight and have a nominal thickness of 0.125 inches.
7. **Connections** — All connections below the gangway and deck shall be bolted with galvanized, zinc plated, cadmium plated or stainless steel bolts. Steel materials may be welded. Other connections may be nailed or attached by screws.

2.8 Shoreline Erosion Control

Shoreline erosion control measures are required to be installed at the time of dock construction. Refer to the **SMP Section 4.6 and Appendix F, Section 6** for erosion control measures standards and guidelines.

1. **Location** – Erosion control measures must be installed for at least 50 feet on either side of the dock along elevation 534 MSL. Although 50 feet is preferred to protect the shoreline for the minimum dock spacing distance, the length of erosion control on one side may be reduced at the discretion of NTMWD if the full 50 feet is not needed due to specific site conditions or if it would encroach on neighboring uses. More shoreline protection may be required so that all the shoreline fronted by a dock is protected (e.g., if a dock is placed parallel to the shoreline it may be wider than 50 feet on one side) or to close a gap to a neighboring shoreline protection feature.

Figure 1. Example Illustration for Select Dock Orientation Standards



3. Standards for Fishing Piers or Overwater Patios with No Motorized Boat Moorage

This section supplements and provides additional detail on the standards for docks without motorized boat moorage in the SMP (**SMP Section 4.3.1.1**). Docks without motorized boat moorage include overwater structures such as fishing piers, swim platforms, or overwater patios designed and constructed without boat slips. Motorized boat moorage is not allowed on these structures.

The standards in **Appendix F, Section 2, Standards for Boat Docks**, apply to all overwater structures except for the limitations described below. Generally, standards for the type of dock, loading, floatation, and materials are the same as described above in Section 2 (**Appendix F**). If not otherwise specified in this section, the standards described in **Appendix F, Section 2** are applied to docks without motorized boat moorage.

All designs must be signed and stamped by a professional engineer licensed in the State of Texas. All construction must follow all other federal, state, and local laws and NTMWD policies and regulations. Responsibility for adherence to engineering standards and the standards for docks or other overwater structures rests with the lessee.

Location of the NTMWD property boundary must be clearly marked and projected side yard lines for lease use area identified at 534 feet MSL by a licensed surveyor before completion of the agreement application process (**SMP Section 4.2.5**).

Non-motorized boats such as kayaks and canoes may be moored at fishing piers or overwater patios. Motorized PWC may not be moored at these structures. Watercraft that are typically non-motorized, but which may be propelled by a portable electric motor, may be moored at these structures if the portable motor is removed at the end of each day. Portable electric motors and their batteries may not be stored on fishing piers or overwater patios. Batteries and portable electric motors must be stored on the adjacent landowners' property.

3.1 Location

1. **SMP Zone** – Entire facility may only be placed in Dock Capable and Limited Development shoreline zones (refer to **SMP Appendix A**).
2. **Access** — Applicant must own property immediately adjacent to the NTMWD property; must share a common boundary with Dock Capable or Limited Development zoned shoreline; physical properties of the shoreline must allow for reasonable access for regular maintenance. Obvious access limitations or safety issues, such as a bluff or severe slope, could preclude approval (refer to **SMP Section 5.1.1**).
3. **Maximum distance from shore** — No more than 120 feet from 534 MSL contour including the gangway, dock, and any additional supported walkways combined.

3.2 Size

1. **Total size:**
 - a. Dock Width — maximum 20 feet; minimum 10 feet
 - b. Dock Length — maximum 20 feet; minimum 10 feet
 - c. Total Area – maximum 200 square feet excluding the gangway

- d. Total length of gangway, dock, and supported walkway combined may not exceed 120 feet from the 534 MSL contour.

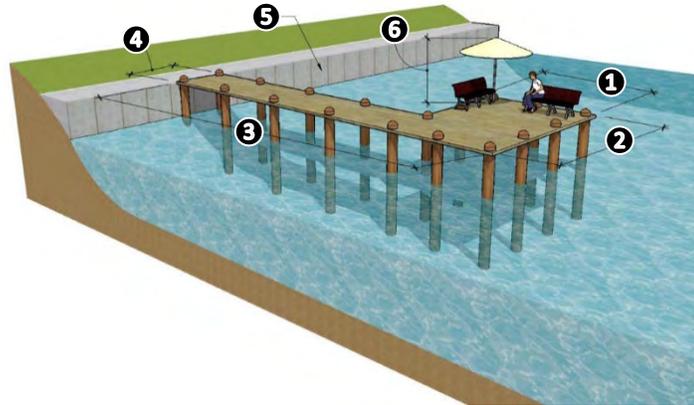
2. Component Size:

- a. Gangway width – Minimum 3 feet wide, maximum 6 feet wide
- b. Gangway length – Maximum length 60 feet
- c. Roof overhang (if a roof is proposed) – maximum 24 inches
- d. Kayak racks are allowed, but they must be bolted to the dock and may not be enclosed.
- e. Height of any component, excluding roofs, may not exceed 8 feet. The bottom edge of a roof may not exceed 8 feet.

3.3 Design Elements

1. **Pole Caps** — See **Appendix F, Section 2.6**
2. **Roofs** — See **Appendix F, Section 2.4** and **Section 2.6**; except as otherwise limited by this section.
3. **Anchorage** — See **Appendix F, Section 2.6**
4. **Gangways**
 - a. Size- Refer to **Appendix F, Section 3.2, Size**, above.
 - b. Refer to **Appendix F, Section 2.6** for additional requirements.
5. **Handrails**
 - a. Must be installed on at least one side of the gangway.
 - b. Handrails may be installed around the perimeter of the dock, but are not required on docks without motorized boat moorage.
 - c. Height – 42 inches high; with guardrail approximately 20 inches below handrail
 - d. Loading – 200 pounds applied in any direction with minimal deflection
6. **Lifts** — Personal watercraft or boat lifts are not allowed.
7. **Swim Deck** — Diving boards, water slides, and elevated platforms prohibited
8. **Electrical Service** — refer to **Appendix F, Section 2.6**.
9. **Lighting** — refer to **Appendix F, Section 2.6**.
10. **Enclosures/Storage:**
 - a. All sides must be open; enclosed docks are not allowed.
 - b. Storage Chest Size – Not to exceed 8 feet long by 3 feet wide by 2.5 feet high; minimum size for the storage of equipment necessary for recreational use, such as personal floatation devices or fishing poles.
 - c. One storage chest allowed per dock.
 - d. No fuel or hazardous materials storage allowed.
11. **Pumps** – refer to **Appendix F, Section 2.6(13)**

Figure 2. Visual Representation of Non-motorized Dock



- ❶ MINIMUM OF 10 FEET AND A MAXIMUM OF 20-FEET; ❷ MINIMUM OF 10 FEET AND A MAXIMUM OF 20 FEET; ❸ MAXIMUM DISTANCE FROM SHORELINE OF 120 FEET; ❹ 3 FOOT MINIMUM TO 6 FOOT MAXIMUM; ❺ BULKHEAD OR OTHER SHORELINE EROSION PROTECTION
(Image from City of Rockwell UDC Ordinance 21-01)

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4. Standards for Land-based Facilities

This section supplements and provides additional detail on the standards for land-based facilities and access paths in the SMP. Any work on NTMWD-owned property (i.e., below the 541 MSL line), may only be conducted with an approved Shoreline Lease and Use Agreement. Applicants wanting to construct land-based improvements are not required to meet the same insurance and construction requirements for overwater structures or erosion control. Many activities are prohibited on NTMWD-owned property to protect water quality and wildlife habitat as well as prohibit activities that may lead to situations that interfere with dam operations (such as allowing loose items to float into the dam intake structures) (see **Appendix F, Section 5**). Interested parties should also refer to the application process described in the **SMP, Section 6**.

Land-based facilities may not be used for any commercial enterprise including short-term rentals, wedding venue rentals, or other commercial activities (**SMP Section 4.3.1.4**). Commercial activities are not allowed under a Shoreline Lease and Use Agreement (**SMP Section 4.4**). Please refer to your Shoreline Lease and Use Agreement or contact NTMWD for more information about commercial activities.

All construction must follow all other federal, state, and local laws and NTMWD policies and regulations. Responsibility for adherence to engineering standards and the standards for any facilities on NTMWD-owned property rests with the lessee.

Location of the NTMWD-owned property boundary must be clearly marked and projected side yard lines for lease use area identified at 534 feet MSL by a licensed surveyor before completion of the agreement application process (**SMP Section 4.2.5**).

4.1 Overview

Land based facilities may include a variety of structures such as a deck, patio, pergola, gazebo, or flagpole. A constructed sitting area may include a fire pit, hard surface sitting areas, decks, gazebos or similar open-sided structures. Access paths are included in land-based facilities and are described in **Appendix F, Section 4.2.2**. All land-based facilities must be designed to support the responsible and sustainable use of NTMWD-owned property for recreation.

Anything constructed on the shoreline may be under water for extended periods of time. Land-based structures and improvements must be anchored to the ground and open-sided to allow floodwaters to flow through. Facilities must be constructed of materials capable of being inundated for extended periods. Because the water level may change quickly, anything that is not anchored to the ground must be removed from NTMWD land at the end of each day including items such as folding chairs, coolers, firewood, free-standing grills, boat oars, and life vests.

Land-based facilities may require a Fannin County Development Permit. Required state or local permits must be obtained before a NTMWD Shoreline Use and Lease Agreement may be approved.

4.2 Design Requirements

Plans attached to an application for a Shoreline Lease and Use Agreement must clearly show how the proposed facility and/or path meets the following design requirements for structures and access paths.

4.2.1 General Requirements for Structures

1. **SMP Zone** – Entire facility may only be placed in Dock Capable or Limited Development shoreline zones (refer to **SMP Appendix A**).
2. **Access** – Applicant must own property immediately adjacent to the NTMWD property; must share a common boundary with Dock Capable or Limited Development zoned shoreline; physical properties of the shoreline must allow for reasonable access for regular maintenance. Obvious access limitations or safety issues, such as a bluff or severe slope, could preclude approval. See also requirements for access paths below (**Appendix F, Section 4.2.2**).
3. **Setbacks** –
 - a. All land-based facilities must be set back a minimum of 50 feet from the shoreline (from elevation 534 feet MSL). If there is less than 50 feet between elevation 534 MSL and 541 MSL, structures shall not be allowed on NTMWD property.
4. **Size** –
 - a. No part of any facility may be taller than 15 feet as measured from the ground level prior to construction.
 - b. Total footprint of all facilities associated with an adjacent non-NTMWD property is a maximum of 1,000 square feet (**SMP Section 4.3.1.4**).
5. **Materials** –
 - a. Use of treated wood is strictly prohibited.
 - b. Roofing material must be earth-toned in color.
6. **Design Requirements:**
 - a. Must be open on all sides; no enclosed structures, areas, or storage allowed.
 - b. Must be anchored to the ground.
 - c. Must not float during periods of high water.
 - d. Must be able to withstand inundation for extended periods, which may be up to 3 months or longer.
 - e. Must be constructed to blend in with the natural setting and the facility must be located to minimize vegetation clearing and modification.
 - f. Grading or other alteration of the existing topography must be kept to a minimum and only what is necessary for the individual land-based structure. Erosion control measures must be designed and installed to prevent erosion and sedimentation from stormwater runoff and floodwaters.
7. **Electrical Service:**
 - a. On-site solar only
 - b. Electrical inspection form must be certified by a state-licensed electrician (refer to **SMP Appendix C-5**)
 - c. Design and installation must comply with NFPA 70 and other relevant codes and standards.
 - d. Grounding and ground fault protection must be provided as defined in NFPA 70.

- e. Signage for potential electrical shock hazard must be displayed.
- f. Because the shoreline area will flood, all electrical components should be installed as high as possible.

4.2.2 Access Paths

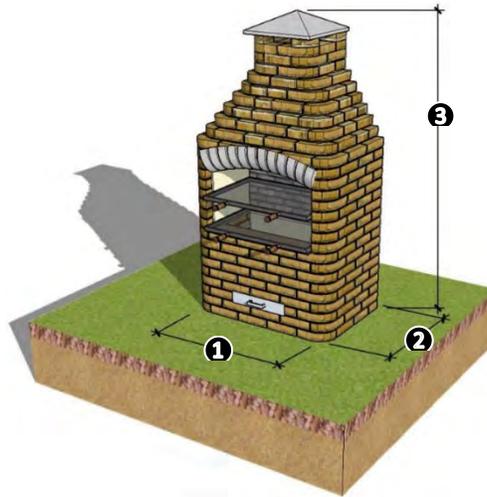
1. Access paths are intended for foot traffic only and may not be designed for vehicle access.
2. A foot path may extend only to the shoreline at elevation 534 feet MSL.
3. A path may not exceed 5 feet in width and must be designed to meander with the contours of the land to prevent erosion. The path route will be the shortest meandering distance between the adjacent non-NTMWD property and the shoreline.
4. Paths must be flush with the surrounding grade or work within the gradient present of the surrounding grade.
5. The use of landscape timbers or treated wood is not allowed.
6. Digging, placement of fill material, or construction of bridges is not allowed.
7. If an authorized path creates an erosion problem, erosion control measures and/or redesign of the path must be implemented. If the erosion problem persists, the agreement may be revoked, and the terrain would be required to be restored.
8. Trees may be limbed along the path to keep the immediate area of the path clear for walking (up to a maximum area of 5 feet wide and 7 feet tall). No trees or vegetation may be modified without an approved Shoreline Lease and Use Agreement that describes the approved modifications.
9. If a mobility assistance vehicle agreement has been approved, then an access path may be up to 6 feet wide to accommodate a golf cart, all-terrain vehicle (ATV), or utility terrain vehicle (UTV) to transport the individual requiring assistance.

4.2.3 Barbeque Pits, Permanent Fireplaces

A *barbecue pit* is a permanent fireplace structure over which meat, poultry and other foods are roasted.

1. **Building Materials** - A barbecue pit must be constructed with a combination of natural stone, brick, concrete, and/or iron grating.
2. **Height** - barbecue pit shall not exceed a maximum of 6 feet in height.
3. **Size** - A barbecue pit shall not be smaller than a minimum size of 3 feet in length by 3 feet in width; however, a barbecue pit should not exceed a maximum size of 8 feet in length by 3 feet in width.
4. **Operation** – barbecue pits and fireplaces may only be operated in accordance with local regulations and in compliance with local burn bans and regulations.

Figure 3. Visual Representation of a Barbeque or Permanent Fireplace



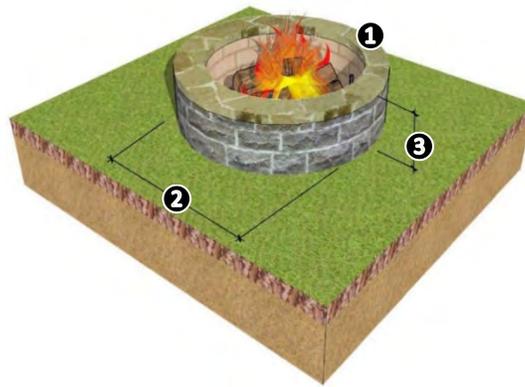
❶ A MINIMUM OF 3 FEET AND A MAXIMUM OF 8 FEET IN LENGTH; ❷ A MINIMUM AND MAXIMUM OF 3 FEET IN WIDTH; ❸ A MAXIMUM OF 6 FEET IN HEIGHT (Image from City of Rockwell UDC Ordinance 21-01)

4.2.4 Fire Pit

A *fire pit* is a permanent fireplace that is dug into the ground or is in a permanent freestanding structure in which a contained fire is made.

1. **Conditional Use Standards** - A fire pit can only be fueled by charcoal and wood products and shall not be fueled by any permanently buried gas products (i.e., natural gas or propane).
2. **Building Materials** - The surround (i.e., the area used to contain the fire) for a fire pit must be constructed with a combination of natural stone, brick, and/or concrete.
3. **Height** - A fire pit shall not exceed a maximum of 36 inches in height.
4. **Size** - A fire pit shall not be smaller than a minimum size of 3 feet in length by 3 feet in width; however, a fire pit should not exceed a maximum size of 5 feet in length by 5 feet in width.
5. **Operation** –fire pits may only be operated in accordance with local regulations and in compliance with local burn bans and regulations. All burning material must be contained within the surround at all times.

Figure 4. Visual Representation of Fire Pit



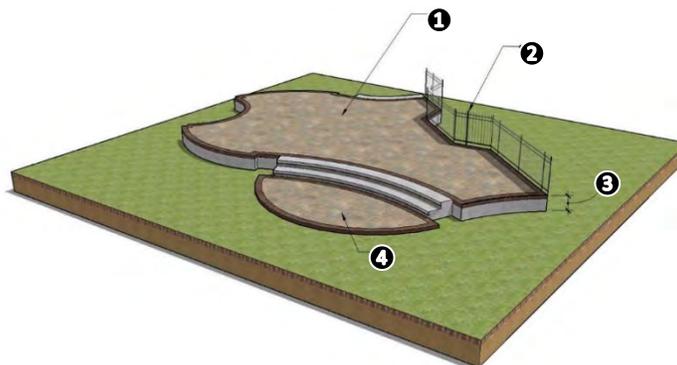
- ❶ NATURAL STONE, BRICK, AND/OR CONCRETE; ❷ MINIMUM SIZE OF 3 FEET BY 3 FEET AND A MAXIMUM SIZE OF 5 FEET BY 5 FEET; ❸ MAXIMUM HIEGHT OF 36 INCHES OR 3 FEET. (Image from City of Rockwell UDC Ordinance 21-01)

4.2.5 Patio

A *patio* is a paved, tiled, or rocked outdoor area set within the existing grade that is generally used for dining or recreation.

1. **Conditional Use Standards** - A patio shall not incorporate walls or other non-transparent structures to function as handrails or counter space.
2. **Building Materials** - A patio may not be constructed of rubber pavers. Paving materials such as poured concrete, natural stone, bricks, cobblestones, or pre-molded concrete pavers that allow precipitation to infiltrate between the edges of the pavers or pervious pavers are allowed. Handrails, if required, must have an open railing system that allows water to flow through during flooded conditions.
3. **Height** - A patio shall not exceed a maximum height of 12-inches above grade on any side.
4. **Size** - A patio shall not exceed a maximum area of 1,000 SF.

Figure 5. Visual Representation of Patio



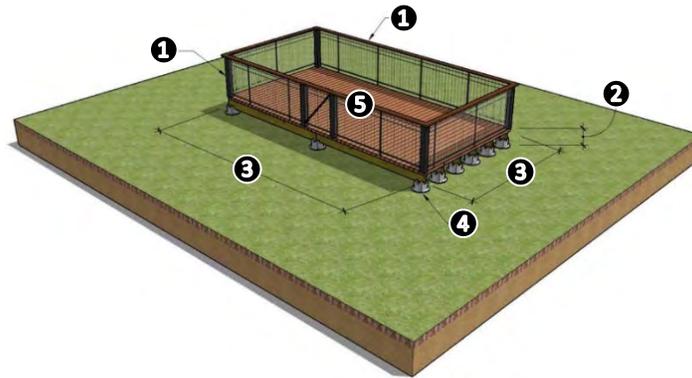
- ❶ NATURAL STONE OR PRE-CAST PAVERS; ❷ RAILING, IF NEEDED, ❸ MAXIMUM OF 12-INCHES OR 1 FOOT; ❹ PATIO AREA SHALL NOT BE GREATER THAN 1,000 SF (Image from City of Rockwell UDC Ordinance 21-01)

4.2.6 Deck

A *deck* is a roofless structure anchored to the ground that consists of planks running in a horizontal pattern and creating a flat surface area.

1. **Conditional Use Standards** - A deck shall not incorporate walls or other non-transparent structures to function as handrails or counter space.
2. **Construction Standards:**
 - a. **Building Materials** - A deck must be constructed of cedar, redwood, ironwood, plastic materials such as HDPE/PVC, or metal. Decks may not be constructed of any type of treated lumber.
 - b. **Height** - A deck shall not exceed a maximum height of 24-inches above grade.
 - c. **Size** - A deck shall not exceed a maximum area of 1,000 SF.
 - d. **Foundation** - A deck shall be anchored into the ground using concrete posts and footings as a foundation appropriate for the load and size of the proposed deck.

Figure 6. Visual Representation of Deck



❶ RAILING, IF REQUIRED; ❷ MAXIMUM OF 24-INCHES OR 2 FEET ABOVE GRADE; ❸ LENGTH by WIDTH SHALL NOT BE GREATER THAN 1,000 SF; ❹ CONCRETE POSTS AND FOOTINGS FOR FOUNDATION; ❺ DECKING. (Image from City of Rockwell UDC Ordinance 21-01)

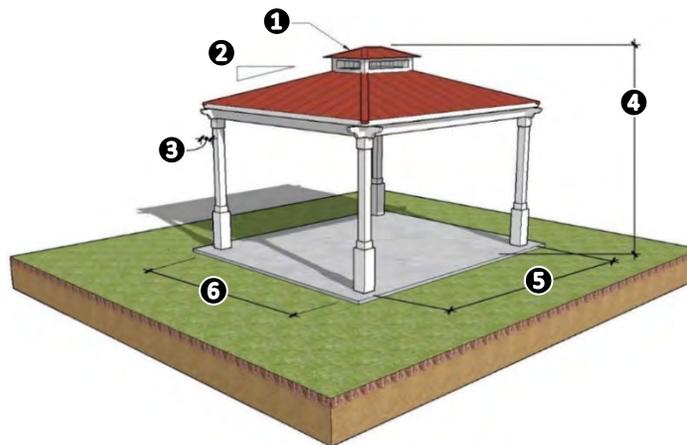
4.2.7 Covered Patio

A *covered patio* is a standalone structure that provides shade and/or rain coverage for a patio or deck. Covered patios have a solid roof.

1. **Conditional Use Standards** - A covered patio shall not be used as a habitable dwelling structure, storage facility, or shelter for domestic or wild animals.
2. **Building Materials** - A covered patio must be constructed utilizing cedar, redwood, ironwood, plastics such as HDPE/PVC, or metal. Treated wood of any type is prohibited. The roof of the structure must be earth tones, and be constructed using metal. Asphalt shingles are not allowed. Canvas, cloth, or mesh attachments to the structure are prohibited. The roof structure of a covered patio must be anchored into the ground using concrete posts and footings as a foundation appropriate for the wind loading on the roof. Poured concrete slabs are not allowed.
3. **Height** - A covered patio shall not exceed a maximum height of 15-feet or one-story, and the roof shall not be used as a deck or lookout. The height shall be measured from grade to the mid-point of the pitched roof.

4. **Size** - A covered patio shall not exceed a maximum size of 12-feet by 20-feet or 240 square feet total.
5. **Roof** - A covered patio will have a hip or gable roof with an option to include either: [1] one cupola with a hip roof centered at the top of the main hip roof, or [2] a clerestory built into the center of the main hip roof. Cupolas and clerestories will be designed to allow updraft air and winds to vent outward, and shall be proportional to the main roof. All covered patios should be built with a minimum of a 4:1 roof pitch. The roof shall not have an overhang greater than 18-inches. Rooftop decks of any kind are not allowed, and the roof shall not be used as a deck or lookout.

Figure 7. Visual Representation of Covered Patio



- ① CUPOLA OR CLERESTORY; ② 4:1 MINIMUM ROOF PITCH; ③ 18-INCHES MAXIMUM OVERHANG; ④ 15-FEET MAXIMUM HEIGHT; ⑤ 20-FEET MAXIMUM; ⑥ 12-FEET MAXIMUM (Image from City of Rockwell UDC Ordinance 21-01)

4.2.8 Gazebo

A *gazebo* is a permanent standalone structure with a roof and trellis structure open on all sides with places for sitting.

1. **Conditional Use Standards** - A gazebo shall not be used as a habitable dwelling structure, storage facility, deck, or shelter for domestic or wild animals.
2. **Building Materials** - A gazebo must be constructed using cedar, redwood, ironwood, plastics such as HDPE/PVC, or metal. Treated wood of any type is prohibited. The side trellis of the gazebo may be built using wood; however, canvas, cloth, or mesh attachments to the structure are prohibited. A gazebo will be constructed with a foundation of steel reinforced concrete piers. Poured concrete slabs are not allowed.
3. **Height** - A gazebo shall not exceed a maximum height of 15 feet including a clerestory/cupola. The height of the gazebo shall be measured from grade to the vertex of the gazebo's main roof or clerestory/cupola roof. In either case a gazebo shall not be larger than one story or incorporate a balcony. The roof shall not be used as a deck or lookout.
4. **Size** - A gazebo shall not exceed a maximum size of 12-feet by 12-feet or 144 square feet total.

5. **Roof** - The roof of the gazebo shall be a hipped roof, gable roof, or hip and/or gable roof with or without a clerestory or cupola, and shall have a slope of 2:1. The roof shall not have an overhang greater than 18-inches. The roof of the structure must be earth tones, and be constructed using metal. Asphalt shingles are not allowed. If a clerestory/cupola is incorporated, it shall be centered at the top of the main hip roof.

Figure 8. Visual Representation of Gazebo



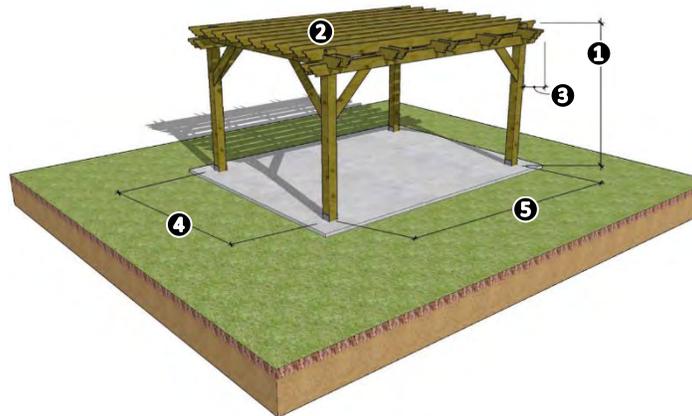
❶ CUPOLA OR CLERESTORY; ❷ 2:1 MINIMUM ROOF PITCH; ❸ 1.5-FOOT MAXIMUM OVERHANG; ❹ 15-FOOT MAXIMUM HEIGHT WITH OR WITHOUT A CUPOLA OR CLERESTORY; ❺ 12-FOOT MAXIMUM; ❻ ROOF MATERIAL SHALL BE METAL. (Image from City of Rockwell UDC Ordinance 21-01)

4.2.9 Pergola

A *pergola* is a standalone structure consisting of parallel columns supporting an open roof of girders and cross rafters.

1. **Conditional Use Standards** - A pergola shall not be used as a habitable dwelling structure, storage facility, or shelter for domestic or wild animals.
2. **Construction Standards:**
 - a. **Building Materials** - A pergola must be constructed utilizing cedar, redwood, ironwood, plastics such as HDPE/PVC, or metal. Treated wood of any type is prohibited. Canvas, cloth, or mesh attachments to the structure shall be prohibited. The roof structure of a pergola must be anchored into the ground using concrete posts and footings as a foundation appropriate for the wind loading on the superstructure and to prevent scour. Poured concrete slabs are not allowed.
 - b. **Height** - A pergola shall not exceed a maximum height of 15-feet or one story, and the roof shall not be used as a deck or lookout. The height shall be measured from grade to the highest point of the structure.
 - c. **Size** - A pergola shall not exceed a maximum size of 12-feet by 20-feet or 240 square feet total.
 - d. **Roof** - The roof of the pergola shall not be closed or covered with sheathing or roof material and shall not be used as a deck of any kind.

Figure 9. Visual Representation of Pergola



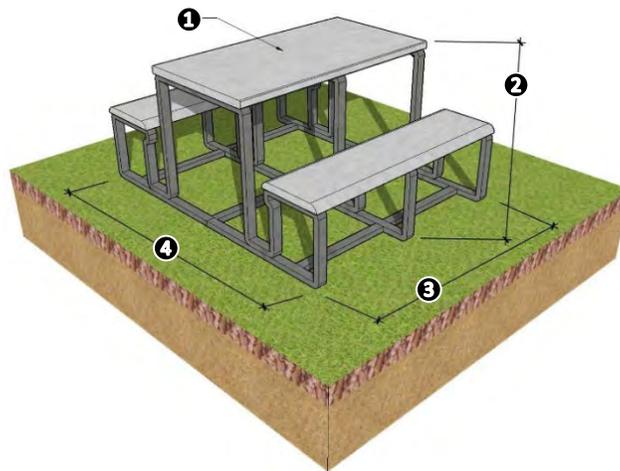
- ❶ 15-FOOT MAXIMUM HEIGHT; ❷ OPEN ROOF OF GIRDERS OR RAFTERS; ❸ ROOF OVERHANG; ❹ 12-FOOT MAXIMUM; ❺ 20-FOOT MAXIMUM (Image from City of Rockwell UDC Ordinance 21-01)

4.2.10 Picnic Table

A *picnic table* is a permanent outdoor structure used for outdoor dining.

1. **Conditional Use Standards** - A picnic table must be a minimum of 12-feet from a barbecue pit or fire pit, and shall be open to the air (i.e., no roof covering) unless combined with a covered patio or pergola. A picnic table shall be built on level terrain.
2. **Building Materials** - Picnic tables may not be constructed with any type of treated wood.
3. **Height** - A picnic table shall not exceed a maximum of 36 inches in height.
4. **Size** - A picnic table shall not exceed a maximum size of ten (10) feet in length by eight (8) feet in width.
5. **Anchoring** - All picnic tables shall be anchored to the ground to prevent shifting by floodwaters.

Figure 10. Visual Representation of Picnic Table



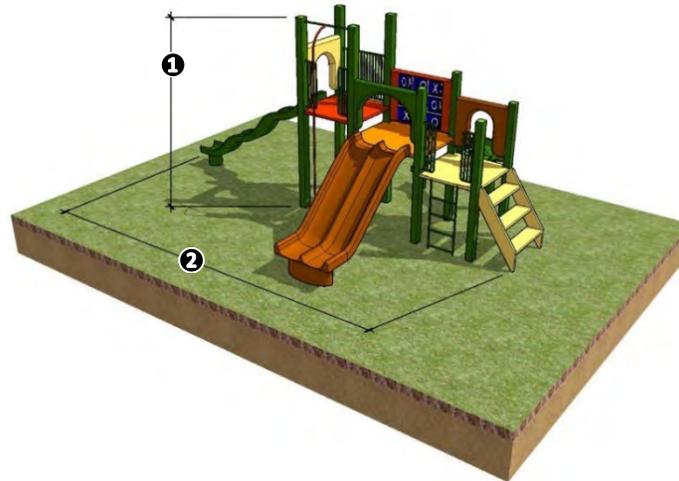
❶ SURFACE OF THE PICNIC TABLE; ❷ NOT TO EXCEED 36-INCHES OR 3 FEET; ❸ 8 FOOT MAXIMUM; ❹ 10 FOOT MAXIMUM. (Image from City of Rockwell UDC Ordinance 21-01)

4.2.11 Private Play Structure

A private play structure is a permanent outdoor structure used by children for play.

1. **Conditional Use Standards** - A private play structure can consist of arched ladders, vertical ladders, horizontal ladders, clatter bridge, timber structures, slides, fort and slide playset, climbers, play walls, play climbers, play pods, moon houses, jungle gyms, see-saws, merry-go-rounds, domes, rocket riders, tire swings, buoy balls, monkey bars, drums, chin-up bars, trampoline and rock walls; however, sandboxes and/or sand play areas are not permitted.
2. **Building Materials** - A private play structure shall be built out of cedar, redwood, ironwood, aluminum, galvanized steel, or plastic such as HDPE/PVS; however, railroad ties and treated wood of any type are prohibited. The exterior color of a private play structure should blend and incorporate the same hues and tones of the surrounding landscaping. Rubber mulch of any kind is prohibited.
3. **Height** - A private play structure shall not exceed a maximum of 8 feet in height.
4. **Size** - All private play structures will be situated in a collected area that is a maximum of 550 square feet total in area.
5. **Anchoring** - All play structures shall be anchored to the ground to prevent shifting by floodwaters.

Figure 11. Visual Representation of Play Structure



- ❶ MAXIMUM OF 8 FEET IN HEIGHT; ❷ TOTAL SQUARE FOOTAGE SHALL NOT EXCEED A MAXIMUM OF 550 SF; ❸ EXTERIOR COLOR SHOULD BLEND WITH THE SURROUNDING LANDSCAPING. (Image from City of Rockwell UDC Ordinance 21-01)

4.2.12 Outdoor lighting

Outdoor lighting is a structure or system of structures, fixtures, and/or devices used to provide artificial nighttime lighting over a defined broad area, on buildings and monuments, on docks for safety, and to emphasize landscaping but not directed to the detriment of the traveling public or surrounding residents in the light's path.

1. **Conditional Use Standards** — Systems and structures associated with outdoor lighting include artificial landscape lighting, dock lighting, path lighting, and flood lights. Cobra and florescent light fixtures are not allowed on poled structures. All lights are to have shields which deflect light downward. All lighting shall be powered by on-site solar only.
2. **Prohibited Lighting** —
 - a. Any unshielded light source is prohibited; with the exception of temporary holiday light displays using bulbs less than 15 watts (1.2 watt LED) and that are solar powered.
 - b. The operation of search or spot lighting is prohibited.
 - c. Lighting of flagpoles is prohibited.
3. **Photometric Plan** — A photometric plan describing compliance with the following must be submitted prior to approval of a Shoreline Lease and Ase agreement that includes outdoor lighting. This plan shall be prepared by an appropriate lighting professional (e.g., lighting engineer, architect, or other qualified lighting designer). Upon installation of the lighting, the lighting professional shall provide a letter certifying that the lighting is installed in accordance with the approved photometric plan.
 - a. Glare: In order to preserve the night sky and to reduce glare on the lake, roadways, pedestrian areas, and adjacent development, light sources (e.g., light bulbs) shall be oriented down and toward the center of the site or shielded so as to not be visible from the property line. This applies to refractory lenses which extend beyond the lighting fixture and are designed to redirect the lighting source horizontally.

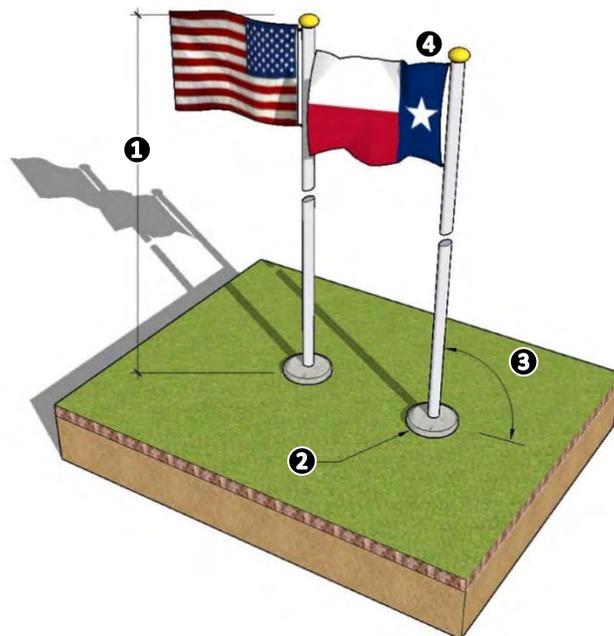
- b. **Light at Property Line.** The allowable maximum light intensity measured at the projected side yard line shall be 0.2 of one footcandle.
4. **Building Materials** — The use of treated wood of any kind for outdoor lighting poles is prohibited.
5. **Height** — The height of outdoor lighting may range from light fixtures embedded into a gangway periphery to an 8-foot maximum for post structures on land for broader illumination. Poled outdoor light fixtures should be no taller than one-third (1/3) the distance to a neighboring property or projected side yard line and should not exceed 8 feet.
6. **Building and Pole Mounted Lighting** — All building and pole mounted luminaries shall be directed down with either a partial cut-off or full cut-off source.

4.2.13 Flagpole

A *flagpole* is an upright pole or staff, constructed at a 90-degree angle to the finished grade, which is used to raise a flag or banner.

1. **Conditional Use Standards** - A maximum of two flagpoles shall be permitted within the shoreline area. Lighting in association with a flagpole shall be prohibited.
2. **Building Materials** - A flagpole shall only be constructed of either stainless steel or aluminum.
3. **Height** - A flagpole shall not exceed a maximum height of 20-feet from grade.
4. **Size** - At the ground base a flagpole shall measure a minimum size of 5 inches and a maximum size of 8 inches.

Figure 12. Visual Representation of Flagpole



- ① MAXIMUM OF 20-FEET FROM GRADE; ② AT THE BASE THE FLAGPOLE CAN BE A MINIMUM OF 5 INCHES AND A MAXIMUM OF 8 INCHES;
 ③ MAINTAINED TO BE 90-DEGREES FROM GRADE (Image from City of Rockwell UDC Ordinance 21-01)

5. Activities Prohibited on NTMWD Property

The following list of prohibited activities is provided for reference purposes only and is not all inclusive. All activities must also be in compliance with the SMP and the Shoreline Lease and Use Agreement as well as all applicable local, state, and federal laws and regulations. Contact NTMWD with specific questions.

1. Construction of any kind is prohibited without a valid Shoreline Lease and Use Agreement that covers the proposed activity on land and/or overwater.
2. Land-based facilities shall not be enclosed or include any storage of any kind, including permanent garbage containers.
3. At no time are hazardous materials (e.g., pesticides, herbicides, cleaning products, fertilizers) or fuels to be stored on NTMWD-owned property including on any flowage easement above elevation 541 MSL that NTMWD may have on an adjacent property.
4. Treated wood or rubber mulch may not be used or stored anywhere on NTMWD property or easements.
5. Permanently buried gas products (i.e., natural gas or propane) are not allowed; a barbecue pit can only be fueled by charcoal and wood products.
6. Land-based facilities shall not be used to house or shelter livestock or any type of domestic animal.
7. Land-based facilities and overwater structures shall not be used for human habitation. Any amenities that present the appearance of human habitation are not allowed.
8. The following items are prohibited on docks and overwater structures: diving boards, slides, grills, playground equipment, plants, birdhouses, indoor furniture, couches, sinks, cabinets, appliances, satellite dishes, permanent stereo systems, televisions, underwater lighting, hot tubs, curtains, showers, fire pits, and ceiling fans.
9. There shall be no sewage disposal, storage, or treatment facility of any kind or any portion of such a facility on NTMWD property or easements, including placement of any portion of a septic/on-site sewage facility (OSSF) system.
10. Land-based facilities authorized by a Shoreline Lease and Use Agreement may not be used for any commercial activity, including short-term rentals (see SMP Section 4.4). Commercial activities require a separate specialized agreement with NTMWD.
11. Outbuildings such as detached garages, storage buildings, barns, sheds, or greenhouses shall not be allowed.
12. Fences of any type shall not be constructed on NTMWD-owned property below 541 MSL.
13. All objects that are not anchored to the ground, including, but not limited to, patio chairs, free-standing grills, portable fire pits, coolers, or bird feeders are not allowed to remain unattended on NTMWD-owned property and must be removed at the end of each day.
14. The use of canvas, cloth, or like materials shall be prohibited within NTMWD-owned property.
15. Use of lake water on adjacent uplands for any purpose including irrigation of NTMWD-owned property is not allowed.
16. Electrical lines may not be extended into or across NTMWD-owned property. All on-site power needs must be provided by on-site solar.
17. Mooring buoys are prohibited in all areas.

18. Agricultural activities including grazing and harvesting hay are prohibited on NTMWD property below 541 MSL.
19. The following activities are prohibited on NTMWD property:
 - a. To launch motorized watercraft from the shoreline, including PWCs/jet skis.
 - b. To taper, cut, smooth, or alter the shoreline in any manner unless specifically authorized with a valid Shoreline Lease and Use Agreement.
 - c. To excavate, grade, place fill, or alter the existing ground surface contours and elevations of NTMWD property without a valid Shoreline Lease and Use Agreement.
 - d. To disturb NTMWD property or lake bottom below the normal pool elevation (534 MSL) in any manner, including but not limited to, excavating, channeling, boring, dredging, digging, filling, or smoothing the soil unless specifically authorized with a valid Shoreline Lease and Use Agreement.
 - e. To operate motorized equipment propelled on wheels or tracks below the normal pool elevation or on NTMWD property unless specifically authorized under a valid Shoreline Lease and Use Agreement.
 - f. To construct, establish, or maintain sandy beach areas along the shoreline.
 - g. To remove or modify vegetation either below normal pool elevation (534 MSL) or on NTMWD property, including standing or downed timber below 534 MSL, unless specifically authorized with a valid Shoreline Lease and Use Agreement.
 - h. To use or store creosote treated wood or chemically pressure treated wood products on NTMWD property or easements.
 - i. To dump materials, including but not limited to, brush, grass clippings, bricks, construction wastes, concrete and asphalt rubble, soil, sand, gravel, and any other material, on NTMWD property or easements.
 - j. To place garbage cans and waste receptacles on NTMWD property or easements.
 - k. To place any unauthorized signs of any nature on NTMWD property.
 - l. To operate a business on the NTMWD property unless specifically authorized by NTMWD.
 - m. To store or place personal property on NTMWD property unless specifically authorized with a valid Shoreline Lease and Use Agreement.
 - n. To restrict public access on NTMWD property without having a valid Shoreline Lease and Use Agreement.
 - o. To pump water from the lake for irrigation or personal use except as may be authorized on a boat dock under a valid Shoreline Lease and Use Agreement.
 - p. To apply pesticides and/or herbicides to NTMWD property unless authorized with a valid Shoreline Lease and Use Agreement.
 - q. To engage in any activity or to use or store any material on NTMWD property and easements that may adversely affect water quality or create hazards for boating in the lake or for dam operations.

6. Shoreline Erosion Control Measures

Erosion control structures for shoreline protection must be constructed a minimum 50 feet on either side of a dock or to the property boundary equivalent, if less. Although 50 feet is preferred to protect the shoreline for the minimum dock spacing distance, the length of erosion control on one side may be reduced at the discretion of NTMWD if the full 50 feet would encroach on neighboring uses. More shoreline protection may be required so that all the shoreline fronted by a dock is protected (e.g., if a dock is placed parallel to the shoreline it may be wider than 50 feet on one side) or to close a gap to a neighboring shoreline protection feature. Erosion control structures may be either bulkheads, revetments, or seawalls.

The final design for each erosion control measure must be developed based on specific site conditions. All construction must follow all other federal, state, and local laws and NTMWD policies and regulations and engineering standards. All designs must be submitted as a signed, stamped, and sealed package prepared by a professional engineer licensed in the State of Texas. Responsibility for adherence to engineering standards and the standards for erosion control structures rests with the lessee.

The location of the NTMWD property boundary at 541 MSL and the shoreline at 534 MSL must be clearly marked by a licensed surveyor before completion of the agreement application process (SMP Section 4.2.5). Erosion control measures are intended to be placed along the 534 MSL line and may not extend into the lake more than the minimum necessary for erosion protection and structural integrity.

Other types of erosion control or stormwater management measures above 534 MSL are encouraged to protect water quality. See the **SMP Section 4.6 and Appendix G** for additional guidance on these types of measures. Erosion control and stormwater management beyond the required shoreline erosion control measures are approved at the discretion of NTMWD. Detailed plans should be submitted for review and approval prior to starting any construction.

6.1 Overall Erosion Control Guidelines

The following guidelines apply to all erosion control structures constructed at Bois d'Arc Lake.

1. Erosion control measures such as bulkheads and revetments are required to be installed adjacent to and at the same time as, or prior to, private boat dock construction. An associated boat dock is not a requisite for constructing shoreline erosion controls. Shoreline erosion control measures may be constructed and used by any adjacent landowner to prevent shoreline erosion if approved through a Shoreline Lease and Use Agreement.
2. Erosion control structures may not be placed into the lake beyond the 534 MSL contour line except as needed for adequate shore protection and toe stability of the structure. Reclamation of shoreline property will not be approved. Structures requiring backfill may not be placed below the 534 MSL contour.
3. Each erosion control structure must be designed by a Professional Engineer licensed in the State of Texas. The structure design drawings must include the Engineer's signature and seal, in addition to the name, address, and telephone number of the engineering firm. The

Engineer shall give special attention to the foundation and cap of the structure to provide long-term protection from wave action, scour, runoff, over wash, or other environmental conditions contributing to erosion.

4. Erosion control installations must comply with all local, state, and federal laws, regulations, and requirements. Any installation with components below the 534 MSL contour may require a USACE permit.
5. Remedial measures other than minor repairs and maintenance must be reviewed and designed by a Licensed Professional Engineer.
6. Erosion control structures must be installed by a competent contractor with demonstrated experience in the construction of the particular proposed structure. The contractor will provide the Applicant written instructions on the care of the erosion control structure. A copy of the instructions will be attached to the agreement application.
7. Approved materials for erosion control structures are steel reinforced structural concrete retaining walls; revetments; gabions; quarry riprap; minimum 8-gauge steel sheet piling (steel composition may be ASTM A-857 steel, zinc/galvanized coated steel, PVC (Vinyl), or aluminized steel).
8. Each application must include technical data pertaining to the physical properties of materials used in the erosion control structure. Only materials designated by NTMWD as being suitable for use in Bois d'Arc Lake will be allowed.
9. Materials that will not be approved for erosion control structures are concrete, brick, and asphalt rubble; concrete slabs; chemically treated wood products; and any other material that has not received prior authorization from NTMWD.
10. The top of the structure must typically extend to a minimum of 1.5 feet above normal pool elevation (534 MSL) (i.e., 535.5 MSL). Any deviations from this requirement must be supported by the professional engineer of record for the project and approved by NTMWD prior to application approval.
11. Dredging for individual docks is not allowed. Dredging for community docks may only be authorized if a) approval from NTMWD is requested in advance; b) if approval from NTMWD is obtained, the applicant must then obtain appropriate state or federal permits, including a USACE Section 404 permit; and c) after the USACE approval is obtained, the applicant must complete the NTMWD agreement process by providing NTMWD with a signed USACE permit.
12. Backfill behind an erosion control structure for the purpose of leveling the ground surface along the shoreline is not allowed.
13. The existing and proposed grades and volumes of all cut and fill materials must be clearly shown on the plans.
14. The structure must be able to withstand wave impact driven by 50 MPH winds.
15. The entire erosion control structure must be constructed on NTMWD property along the 534 MSL contour.
16. Lessee must agree to allow abutting lessee(s) (i.e., adjacent property owners) to connect to the erosion protection mechanism so installed, so as not to create gaps between abutting properties in the erosion protection.
17. Vegetation modification, such as tree thinning or under-brushing, must have prior written approval from NTMWD. Any trees to be considered for removal or planting will need to be identified and illustrated on the site plan.

18. Disturbance to vegetation must be limited to only what is absolutely necessary. After construction, all disturbed areas will be adequately restored to prevent erosion and to comply with all applicable local, state, and federal requirements.
19. Erosion control structures may require a U.S. Army Corps of Engineers permit before NTMWD will approve the agreement application. USACE contact information:
 USACE Regulatory Branch, Tulsa District
 2488 E 81st Street
 Tulsa, Oklahoma 74137
 918-669-7400

6.2 Erosion Control Measure-Specific Guidelines

Measure specific guidelines are provided below. Additional detail can be found in **Appendix G** of the SMP.

6.2.1 Bulkheads

Bulkheads are vertical walls constructed of concrete, steel, or aluminum sheet piling. They are most commonly installed parallel to the shoreline. Each bulkhead must be designed based on location-specific conditions such as substrate types, expected wave action, hydraulic conditions, and existing bank stability. Geotechnical investigations and hydraulic modeling may be required to characterize site conditions. Site conditions will dictate the types of materials used and the bulkhead design requirements. Bulkhead design, including pile thickness and embedment depth, is dependent on bulkhead height and soil conditions, and bulkheads must be designed by a professional engineer licensed in the State of Texas.

1. Bulkheads must be designed to prevent overtopping; however, bulkheads are not allowed to exceed the minimum height required to prevent overtopping as determined through site-specific modeling of potential wind and wave conditions and consideration of lake level fluctuations.
2. Backfilling behind a bulkhead for the purpose of leveling the ground surface along the shoreline is not allowed.
3. Toe protection is required, to mitigate scouring due to lake level fluctuations and wind and wave conditions.
4. Seepage control is required, to balance hydrostatic loads.
5. Concrete bulkheads must be designed to resist sliding and overturning.
6. All metal components (piling, connections, anchoring, etc.) must be corrosion resistant.
7. For bulkheads with designated walkways within 6 feet, guardrails or other safety provisions shall be provided along the edges where the vertical drop to the lake bottom at the base of the bulkhead is 30 inches or greater. Guardrails shall be a minimum of 36 inches high and shall prevent the passage of a 21-inch sphere. A wall cap 30 inches or less in width shall not be considered a designated walkway unless it is connected to a walkway.

6.2.2 Seawalls

A seawall is an engineered concrete or steel structure at the water's edge that is typically designed to provide protection from wave action as well as retain shoreline soils. Seawalls are similar to bulkheads, but often are larger in order to provide protection from heavy wave action. The standards for bulkheads apply to seawalls. The ability to withstand site specific wave action must

be documented in the design plans and specifications and provided in a signed, stamped, and sealed package prepared by a professional engineer licensed in the State of Texas.

6.2.3 Revetments

Revetments are armoring structures consisting of rock, precast-concrete shapes, cellular blocks, or other materials installed to fit the slope and shape of the shoreline. A rock revetment (riprap) is the installation of large rocks along a shoreline. Rocks may be angular or rounded materials sized to withstand the expected erosive forces at the site. A concrete revetment is an arrangement of precast concrete structures installed to fit the shape of the graded shoreline slope. Various concrete component shapes, sizes, and configurations may be used as revetments, such as articulated concrete blocks or A-jacks.

Each revetment must be designed based on location-specific conditions such as substrate types, expected wave action, hydraulic conditions, and existing bank stability. Geotechnical investigations and hydraulic modeling may be required to characterize site conditions. Site conditions will dictate the types of materials used and the revetment design requirements. Revetment design, including material size and embedment depth, is dependent on site-specific shoreline conditions, and revetments must be designed by a professional engineer licensed in the State of Texas.

1. Revetments must be designed to prevent overtopping; however, they may not exceed the minimum required height required to prevent overtopping as determined through site-specific modeling of potential wind and wave conditions and consideration of lake level fluctuations.
2. Backfilling behind a revetment for the purpose of leveling the ground surface along the shoreline is not allowed.
3. Rigid revetments shall be founded on a firm foundation to prevent undermining and progressive instability.
4. Provisions shall be made to provide for adequate toe protection to compensate for known or anticipated scour. Additional protection may be needed in active areas and may consist of sheet piling along the toe or stone riprap.
5. An adequate pattern of weep holes shall be provided in the face to relieve hydrostatic pressure behind the wall.
6. Joints shall be sealed or provided with a properly designed filter to prevent loss of fines from the protected slope.
7. Revetment materials should be selected and sized based on expected erosive forces at the site. Riprap sizing shall be per Texas Department of Transportation (TXDOT) Specification 432, Riprap.
 - a. Prior to the placement of riprap, filter fabric will be required to be placed along the shoreline and incorporated into the riprap design to inhibit erosion and the washing of fines through the riprap. Where the lakebed or shoreline in front of the riprap is silt and clay soils, a filter fabric will be required with rock, gravel, and geo grid in place.
8. The lakebed in front of any structure when the soils are silts and clay will be covered with appropriate filter fabrics and rock, free of silts and fines.
9. The maximum recommended shoreline slope for a revetment is 1 foot vertical to 1.5 feet horizontal. Grading may be required to achieve this slope.

10. The revetment should extend up the bank to the elevation at which vegetation will provide adequate soil stabilization. Potential wave runup must be considered to determine the full extent of the revetment.
11. The base of the revetment must be founded below the maximum scour depth or placed on nonerosive material. Consideration should be given to the potential for prolonged periods of low water, which may focus wave energy at the base of the revetment.
12. Toe protection, including toe buttresses, is required to prevent failure. Providing a toe trench per TXDOT standards may be used to buttress the riprap at the toe.
13. Filter or bedding material underlying the revetment should be at least 6 inches thick.
14. For rock revetments, the minimum recommended riprap thickness should be approximately 1.5 times the maximum stone diameter.
15. Commercial articulated concrete blocks must be performance tested to ensure hydraulic stability under the expected site conditions. Articulated concrete blocks must be manufactured to comply with ASTM International (ASTM) D6684 standards on composition and physical properties. An articulated concrete block structure must meet the minimum criteria outlined in **Table 1**.

Table 1. Articulated Concrete Block Revetment Requirements

Matrix Assembly: Cabled System	Required Value	Test Method
Thickness, minimum	4 inches	Not applicable
Net Weight/Area, minimum	30 psf	Note (a)
Critical Shear Stress, minimum	20 psf	FHWA RD-89-199
Critical Velocity, minimum	19 feet/second	FHWA RD-89-199
Curvature Radius, maximum	3 feet	Note (b)
Surface Void Area Ratio	25 percent (%) to 40%	Note (c)
Drainage Correction Factor	20% to 35%	Note (d)
Block/Geotextile Interface Friction Angle	35 degrees	Note (e)

Notes:

- a. Determine the weight of the mattress per unit area with the nominal joint spacing in a nonsubmerged condition.
- b. The curvature radius shall be indicative of the ability of the assembled mattress to conform to one-dimensional subgrade curves without binding, such as for anchor trenches and swales.
- c. The surface void area ratio shall be determined at the visible (with filled voids) surface of the blocks, with the joints spaced in a neutral position (50%) and shall be expressed as a percentage of the gross mat area. The void area shall include area between the blocks and open cells within the block.
- d. The drainage correction factor shall be the minimum void area ratio (usually taken at the base of the blocks), with the joints spaced in a neutral position (50% free play in each direction) and shall be expressed as a percentage of the gross mat area.
- e. The concrete surface shall be sufficiently rough to prevent sliding of the blocks on the geotextile. The interface friction must be matched with the selected block and geotextile combination and shall be included with the ACB and geotextile data submittal.

16. Geotextile used as filters below the Articulated Concrete Block revetment shall be a woven fabric. The geotextile shall meet the material properties specified in American Association of State Highway and Transportation Officials (AASHTO) M 288 for Class 2 strength property requirements and for permanent erosion control. Filter requirements in AASHTO M 288 shall be based on in situ soil with less than 15 percent passing the 0.075-millimeter sieve opening.
17. Geotextile used as a filter below an articulated concrete block structure shall be a woven fabric and shall meet the requirements specified in Table 2. The property values (except for

apparent opening size [AOS]) represent minimum average roll values in the weakest principal direction.

Table 2. Geotextile Physical Properties

Property	Test Requirement	Test Method
Grab Tensile, pounds	250 woven	ASTM D 4632
Tear Strength, pounds	90 woven	ASTM D 4533
Puncture Strength, pounds	90 woven	ASTM D 4833
Permittivity, 1 per sec	0.5	ASTM D 4491
AOS (U.S. sieve)	70 to 100	ASTM D 4751
Ultraviolet Stability	50 %	ASTM D 4355

7. Application Submittal Requirements

The following checklist is intended to assist applicants for a NTMWD Shoreline Lease and Use Agreement provide a complete application for review. Information may be submitted online through My Government Online (MGO) Connect. Plans and other supporting documents may be uploaded electronically as PDFs.

The basic information needed for all types of applications is described in the first section below. Additional information needed specific to the various agreement types is found under the sections that follow.

7.1 All Applications

Contact information:

1. A completed application form with the applicant's name, property address, email, phone, and contact information for contractor(s).
 - a. Contractor information should also include proof of license, insurance, and bonding. All contractors working on NTMWD must be licensed and insured. Eligible contractors must maintain an MGO Connect account with NTMWD. See also contractor eligibility requirements available from NTMWD.

Proposed Project:

1. A brief narrative description of the proposed project, an explanation of how it meets the SMP criteria, and any exceptions requested.
 - a. The project description should describe the proposed project and uses (what do you want to do or build?)
 - b. Any requests for variances or deviations from the standards for the project type must be clearly described.
 - c. Detailed sequence of construction containing:
 - i. which phases of construction will be done at which time
 - ii. specific erosion/sedimentation controls and tree protection measures for each phase of the project
 - iii. plan for restoration of any vegetation disturbed by construction
2. Copy of any other federal, state, or local required permits that may be required (e.g., a U.S. Army Corps of Engineers permit for work below the shoreline elevation of 534 feet MSL or a Fannin County Development Permit for construction of a structure). Approved permits must be submitted before a Shoreline Use and Lease Agreement can be finalized.

Project Location:

1. Provide proof of land ownership (e.g., warranty deed, tax assessor notice, parcel number, legal description) of a parcel that is immediately adjacent to and shares a common boundary with NTMWD property.
 - a. If the adjoining land is jointly owned (e.g., Trust, LLC, Non-Profit, etc.), applicants must provide documentation indicating their interest in the jointly owned property.
 - b. Provide the current Fannin County land use zone for the adjacent parcel.

2. Driving Directions (e.g., text, street map, and latitude/longitude coordinates) to the property from the Bois d'Arc Lake Operations Center (4989 FM 897, Dodd City, TX).
 - a. *NOTE: A boundary line survey will be required prior to construction if the initial review of the application by NTMWD is favorable. The survey should include the boundary line between NTMWD property and the adjacent landowner/applicant (elevation 541 feet MSL) and the shoreline (elevation 534 feet MSL) along the entire length requested for use or 100 feet to either side of the requested use footprint or to the projected side yard line (whichever is shorter). A copy of the electronic data of the survey should be included with latitude and longitude coordinates in decimal degrees. The survey must include the seal and signature of a licensed Professional Land Surveyor. A new survey need not be completed if a recent survey is available that clearly indicates the NTMWD property line and shoreline. (Refer to **SMP Section 4.2.5**)*

Project Plans:

Plans should show the area where the work is proposed and all surrounding boundaries and existing structures. Plans and drawings of the proposed structure should show the proposed project in plan view (view from above), cross-section, and elevation view (profile view), as needed. Provide as many detail sheets as needed to show all aspects of the project.

1. Each Plan sheet should include:
 - a. Project title
 - b. North arrow
 - c. Engineering scale (e.g., 1-inch equals 10 feet); if the project area is large, provide a sheet showing an overall plan, with separate pages showing details at a scale of at least 1"=10'
 - d. Designer(s) company name, address, and telephone number
 - e. Seal and signature of the Texas licensed professional engineer preparing plans, and the date the plans were signed by the engineer (required for all docks, overwater structures, erosion control measures, and land-based structures as required)
2. Plans must show the locations of all existing and proposed improvements at the site, complete with dimensions, in relation to the shoreline (elevation 534 feet MSL) and the NTMWD boundary (elevation 541 feet MSL).
3. Plans should include:
 - a. An overview plan sheet showing the NTMWD boundary (elevation 541 feet MSL), the shoreline (elevation 534 feet MSL), all adjacent property boundaries, and projected side yard lines drawn to scale. This plan view should include the location of any existing NTMWD property boundary markers.
 - b. Limit of construction line encompassing all areas to be disturbed and showing all areas of natural vegetation on the site which are to be left undisturbed. Limits of construction should include:
 - i. Construction access
 - ii. Contractor staging area(s) and vehicular use area(s)
 - iii. Shoreline access route from the adjacent property to the proposed improvement on NTMWD land.

- c. Proposed improvement(s) and all erosion control and bank stabilization measures including construction-related stormwater runoff control measures, and permanent bulkheads, retaining walls, or other erosion/sedimentation controls.
- d. Detail sheets should include:
 - i. Distance of proposed improvements or alterations from all adjacent lot lines including the NTMWD boundary line (elevation 541 feet MSL), the shoreline (elevation 534 feet MSL), the projected side yard lines, and any adjacent boundary or easement lines as well as any useful landmarks such as an adjacent residence.
 - ii. Existing and proposed topography and bathymetry with two-foot intervals.
 - iii. Location, dimensions, cross sections, elevations, and details of all proposed improvements drawn to scale.
- e. Location, dimensions, cross sections, and details of any bulkheads and/or retaining walls, including reinforcing steel (if any), calculations for structural design, and all details necessary for construction including cross section profiles with vertical elevations.
- f. Location and dimensions of all piers, pilings, columns, or similar components including depth of water and total penetration depth as determined by professional engineer.
- g. Location and dimensions of any cross-bracing, roofs, floors, decking, or any other structural feature of the construction.
- h. Complete specification list indicating the size and type of all building materials, fasteners, and other components.
- i. Location of solar power installation certifiable by a state-licensed electrician, including size, number, voltage, and amperage of proposed system.
- j. Detailed restoration plans for all disturbed areas on the site and planting plan details (quantity, size, species, location, etc.). If construction would damage vegetation, include a restoration plan.

7.2 Docks and Other Overwater Structures

In addition to the application submittal requirements listed in **Appendix F, Section 7.1**, applications for docks should include the following:

1. A Texas-licensed professional engineer's seal, signature, and statement certifying that the plan is complete, correct, and in compliance with the SMP.
2. How the dock will be accessed for routine use and maintenance. Ease of pedestrian access should be considered by the applicant, with the understanding that new construction of steps or stairs may not be approved. A site that presents obvious access limitations, such as a bluff or severe slope, or when shoreline conditions prevent proper dock maintenance (e.g., dock adjustments to account for fluctuating lake levels) by the applicant, the site may be denied for a boat dock at the discretion of NTMWD.
3. Orientation of the dock to the shoreline, NTMWD owned property, and adjacent properties.
4. Distances between dock and any other overwater structures within 150 feet of the proposed dock.
5. Compliance with all SMP dock standards (e.g., show all dimensions, total length, width, and area, distances to nearest docks along shoreline and across coves, structural and load

calculations stamped by a Texas licensed professional engineer, materials descriptions, floatation materials/method, handrails).

- a. Reference to an approved dock plan developed by the selected construction contractor that is on file with NTMWD is also acceptable. Any proposed additions or alterations to an approved plan are required to be stamped by a structural engineer and/or electrician as appropriate.
 - b. Total height of the structure should be shown from the normal pool elevation of 534 feet MSL.
 - c. Location and wattage of required lighting.
6. Locations and dimensions of all proposed amenities (e.g., storage box, solar battery storage, boat or PWC lift).
 7. Electrical power must be provided via solar installations certified by a state-licensed electrician.
 - a. *Note: an electrical inspection form must be completed and certified by a state-licensed electrician and submitted to NTMWD upon construction.*
 8. Plan view showing all features including anchor cables/anchor system and orientation of slips, walkways, and gangway.
 9. Description, plan view, cross sections, and dimensions of proposed shoreline stabilization measures for erosion control along the shoreline for a minimum of 50 feet on either side of the proposed dock walkway or gangway shoreline attachment point (See Appendix F, Section 7.9 for required information).

7.3 Community Docks

In addition to the dock application submittal requirements listed above, applications for community docks should include the following:

1. The authorized contact name and information and alternates including name, address, and phone numbers.
2. Because a community dock may exceed some of the dock standards described in **Appendix F, Section 2**, the community dock application should include a clear description of the proposed location, dimensions, materials, loading, floatation, and design elements.

7.4 Dock Replacements

In addition to the application submittal requirements listed above, applications for replacement docks should include the following:

1. The location of the existing dock to be removed.
2. A letter stating the old dock will be dismantled and removed within 30 days of the installation of the new dock.
3. A description of how the materials from the old dock will be removed from the site including access routes and equipment to be used.

7.5 Dock Agreement Renewal/Reissuance

1. A completed and signed Shoreline Lease and Use Agreement application with signatures of the applicant and alternate point of contact as appropriate.

2. Certificate of Compliance or signed statement that all deficiencies noted during the NTMWD inspection have been corrected (if applicable).
3. Electrical certification (if applicable).
4. If no changes are proposed, new plans are not required. Application must clearly indicate no changes are proposed to existing facilities and uses.
5. If modifications are proposed, then plans highlighting the proposed changes in accordance with the application submittal requirements listed above are required.

7.6 Access Paths

In addition to the application submittal requirements listed above, applications for access paths should include the following:

1. A plan view showing the proposed path route and dimensions and materials to be used.
 - a. The plan should show topography in 2-foot contour intervals and all appropriate erosion control measures proposed.
2. Existing and proposed grade(s).

7.7 Vegetation Modification

In addition to the application submittal requirements listed above, applications for vegetation modification should include the following:

1. A plan view showing the area to be included in the agreement. Show the distance of the proposed vegetation modification from authorized improvements and the shoreline.
2. A description of the existing vegetation including species and sizes to be removed or modified and whether trees are alive or dead. Provide photos of current vegetation conditions in the project area.
3. Describe the methods and equipment that would be used to remove vegetation (e.g., hand tools, mechanical equipment).
4. Describe any limits on vegetation removal (e.g., all trees less than 2 inches at ground level would be removed, only juniper trees would be removed, all limbs up to 10 feet above the ground will be removed).
5. Describe the proposed modifications (e.g., limbing, cutting and removal, mowing), including details such as height of limbing, spacing of remaining vegetation, removal of root balls, frequency of treatment.
6. Describe how and where the cut vegetation would be disposed (e.g., burned on the adjacent non-NTMWD land, chipped and mulched on-site or at applicant's adjacent property, removed off-site to landfill or compost facility). Burning is not allowed on NTMWD land (below elevation 541 feet MSL). Mulch left on-site is subject to approval by NTMWD.
7. If your project involves the seeding or planting of vegetation, describe the species and the methods that would be used (e.g., by hand, with machinery, broadcast seeding, aerial application). When making selections, refer to the native plant list in **SMP Appendix I**.
8. Describe any techniques that would be used to ensure survival of seeds or plants (e.g., mulch or protective fencing).

7.8 Land-based Improvements

In addition to the application submittal requirements listed above, applications for land-based improvements should include the following:

1. Plans should clearly show:
 - a. The required 50-foot setback from the shoreline (elevation 534 feet MSL)
 - b. Topography and appropriate erosion control measures proposed
 - c. Existing and proposed grade(s)
 - d. Access routes for construction, use, and maintenance
 - e. Location and type of all erosion and sedimentation controls
 - f. Method by which the structure or improvement will be anchored to the ground
 - g. Materials and colors proposed and a description of their ability to withstand prolonged inundation
 - h. Both plan and elevation views of all proposed structures/improvements showing dimensions and compliance with SMP requirements
2. Electrical power must be provided via solar installations certified by a state-licensed electrician.
 - a. *Note: an electrical inspection form must be completed and certified by a state-licensed electrician and submitted to NTMWD upon construction.*
3. If any other state or local permits (e.g., a Fannin County Development Permit) are required, approved permits must be submitted before a Shoreline Use and Lease Agreement can be finalized.

7.9 Erosion Control Structures

1. Description of the type of erosion control structure proposed including proposed materials, sizes, and dimensions above and below elevation 534 feet MSL (e.g., type and size of riprap for revetments, revetment slope, type and thickness of geotextile fabric under riprap, depth and size of bulkhead footings).
2. Plan view (top view) must include:
 - a. Representative drawing of the erosion control structure overlaid on the plan view of the boundary lines including the shoreline (elevation 534 MSL), the NTMWD property line (elevation 541 MSL), any projected side yard boundaries, or other easements.
 - b. Dimensions of the structure including length and width.
 - c. Drawing and explanation on how the structure will be connected to existing erosion control structures on either end, if applicable.
 - d. Location of any other existing or proposed structures on NTMWD-owned property (e.g., proposed boat dock, existing fire pit).
 - e. Accurate measurements of the closest and farthest points of the structure from NTMWD-owned property line.
 - f. Accurate location and spacing of support braces (deadmen).
 - g. Location, size, and species of any trees that must be removed for construction purposes.
3. The elevation view must include:
 - a. Length of the structure.

- b. Total height of the structure.
 - c. Normal pool elevation line 534 MSL in relation to the proposed structure.
 - d. Accurate depiction of how the top of the structure will follow the vertical contours of the shoreline.
 - e. Existing and proposed grade(s) and the volumes of all cut and fill materials.
4. Cross section drawings must include (include as many drawings as needed to show variations in the structure required to account for variations in the shoreline contours):
- a. Total height of the structure.
 - b. Height of the structure above the actual lake bottom at the location of the structure.
 - c. Height of the structure above the normal pool elevation of 534 MSL.
 - d. Depth of the structure below the actual lake bottom.
 - e. Dimension (length, width, and depth) of the foundation, if applicable.
 - f. Dimensions of any proposed concrete cap.
 - g. Amount of backfill needed (note: backfill for the purpose of leveling the ground surface along the shoreline is not allowed).
 - h. Dimensions and specifications of support braces (deadmen).
 - i. Accurate depiction of the vertical contour from the shoreline inland approximately 50 feet in 2-foot contours.
 - j. List of proposed materials.
5. Applications for erosion control structures must include a Texas licensed professional engineer's seal, signature, and statement certifying that the plan is complete, correct, and in compliance with the SMP.

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Appendix G

Erosion and Stormwater Runoff Control Best Management Practices



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Appendix G

Erosion and Stormwater Runoff Control Best Management Practices

G1.0 Introduction

This appendix outlines best management practices (BMPs) to promote healthy shoreline vegetation, prevent and control shoreline erosion, and mitigate negative impacts from stormwater runoff into the Bois d’Arc Lake (the Lake). All activities approved or authorized around, over, and near the Lake must implement BMPs to control stormwater runoff, erosion, and sedimentation, and prevent contaminants and pollutants from entering the water (see Shoreline Management Plan [SMP] Section 2.7).

Shoreline erosion may occur from both the erosive forces of lake waters and waves against the shore and from the action of stormwater runoff from the land washing over the shoreline into the lake. A second key concern is the potential for stormwater runoff to carry pollutants from the land into lake waters. Shoreline erosion BMPs are generally intended to address erosive forces and typically have little effect on preventing water pollution. Stormwater BMPs can address both stormwater erosion and water pollution effects, but generally have little effect on the erosive forces on the shoreline from lake-based sources (e.g., waves, wakes). Therefore, both types of BMPs may be required to protect the shorelines and water quality of Bois d’Arc Lake.

Development around Bois d’Arc Lake will be predominately outside of the lands directly controlled by the North Texas Municipal Water District (NTMWD) (i.e., the 100-year floodplain) with Fannin County having jurisdiction. NTMWD will work with the county and adjacent land owners to encourage the use of shoreline erosion and stormwater BMPs to promote water quality as development of these lands occur.

The *Comprehensive Plan for Lower Bois d’Arc Creek Reservoir* developed by Fannin County provides recommendations for stormwater management on lands not owned by NTMWD. The Comprehensive Plan recommends that subdivisions include adequate provisions for stormwater runoff and that they be prepared in accordance with standard engineering practices, as part of the subdivision final plat (or parcel). The Comprehensive Plan includes design criteria recommendations for drainage structures to minimize increases in quantity and velocity of stormwater runoff from new impervious surfaces. In addition, the Comprehensive Plan recommends preservation of low-lying drainage areas, includes a brief discussion of the pollution that can be caused by stormwater runoff from parking lots and other impervious areas, and provides guidelines to prevent pollution. These activities will fall under the jurisdiction of Fannin County and may be incorporated into requirements for developments on these adjacent lands. Routine maintenance is needed on all BMP discharge structures. The Comprehensive Plan provides an outline of the BMPs that can be used for these purposes but is not at the level of detail necessary for permitting.

This appendix focuses on shoreline erosion and stormwater control BMPs that are best suited to Bois d'Arc Lake. While NTMWD encourages the use of BMPs to promote water quality at the Lake, any BMPs constructed on NTMWD-owned property or easements require prior approval through a Shoreline Lease and Use Agreement. Additionally, adjacent landowners with private boat docks are required to construct erosion control BMPs, as described in Section F1.2.1. Voluntary implementation of BMPs may qualify adjacent landowners for a reduction in annual agreement fees, as outlined in SMP Section 4.6.

This appendix is divided into two sections. The first is focused on shoreline erosion control BMPs, and the second is focused on stormwater runoff BMPs. This appendix does not provide a comprehensive list of BMPs; other BMPs not presented in this document could also be approved for use on NTMWD-owned property or qualify for a reduction in annual fees. Whether the BMPs are implemented on NTMWD-owned property or on adjacent private lands, they need to be noted on the applicable Shoreline Lease and Use Agreement in order to qualify for a reduction in annual fees. References that provide additional information and options are listed at the end of the appendix.

G1.1 Shoreline Erosion

Erosion is the wearing away of land surfaces by wind, water, and other forces. Common signs of erosion include:

- noticeable shoreline recession (measured from an immovable object, such as a large boulder or tree);
- increased sedimentation (the deposition of eroded materials into water bodies) that can cause increased turbidity, resulting in a visible color change and increased cloudiness of the water;
- loss of vegetation along the shoreline, including exposed plant roots, loss of woody vegetation that holds the soil, and conversion of vegetation communities from native plant communities to exotic landscape plants or invasive weeds;
- exposure of large bare shoreline areas or unstable banks;
- scour, rills, and signs of water becoming concentrated into new channels flowing off the land into the Lake;
- excessive weed and algae growth; and
- decrease in habitat for fish and other aquatic life from sedimentation/erosion.

Shoreline erosion is a naturally occurring process where sediment on the shoreline is mobilized and discharged into the lake because of stormwater runoff, lack of stabilizing vegetation, wave action, wind, or other environmental forces. However, shoreline erosion can be accelerated and intensified because of human impacts, such as removal of existing and natural vegetation, regrading and the creation of unstable slopes, recreational boating (waves from boat wakes, shoreline impacts from landing boats, embarking/disembarking boats), construction/use of

docks, and land development or other increases in impervious surfaces and associated stormwater runoff. Large boats can create waves that have more energy than wind-generated waves, and excessive boating activity on lakes can result in large and constant waves that increase erosion.

As shorelines erode, shoreline slope stability is reduced and the potential for impacts on shoreline structures increases. To prevent shoreline erosion and potential structural impacts, shorelines should be protected through one or both of the following efforts: reduction of force against the shoreline and increase of the shoreline's resistance to erosive forces. Developing a system of BMPs that work in tandem to reduce force against the shoreline and increase the shoreline's erosion resistance is the most effective way to prevent shoreline erosion. Docks can impact shoreline stability and should be built with care and diligence to minimize their negative effects on the shoreline, including vegetation removal and hardening of the shoreline.

G1.2 Shoreline Erosion Control BMPs

Shoreline erosion control BMPs can be divided into two broad categories: structural (hard BMPs) and bioengineered (soft BMPs). "Hard" BMPs include bulkheads and various types of revetments, and "soft" BMPs include items such as shoreline swales, woody vegetation along the shoreline, vegetated littoral shelves, and reed clumps. These BMPs aid in the prevention of shoreline erosion by reducing the force of water against the shoreline or by increasing the shoreline's resistance to erosive forces.

G1.2.1 Structural Shoreline Erosion BMPs

NTMWD requires installation of structural or hard erosion control BMPs by adjacent landowners at the same time as private dock installation. Traditionally, hard BMPs have been implemented because they have a design life of 20 to 50 years, can be easily modeled, and require minimum maintenance. These types of BMPs must be carefully designed so they do not lead to disruptive wave heights caused by refractive waves, which can actually increase erosion problems. If not properly designed, hard shoreline solutions may also increase wave run-up, allowing waves to reach higher on the shore than they would against a natural surface. Therefore, hard solutions may need to be higher than might initially appear to be required. Landowners should work with a Texas Licensed Professional Engineer to address these issues.

Shoreline erosion control BMPs will be evaluated on a case-by-case basis by NTMWD prior to approval for installation per a Shoreline Lease and Use Agreement. The figures and design recommendations presented below are conceptual examples of BMPs and presented only for guidance. The final design for each BMP must be developed based on specific site conditions and the proposed design must be completed in accordance with applicable local and state regulations and engineering standards and must be submitted as a signed sealed package by a professional engineer licensed in the State of Texas.

Structural BMPs such as bulkheads and revetments are required to be installed adjacent to and at the same time as private boat dock construction. However, these types of BMPs may be constructed and utilized by any adjacent landowner to prevent shoreline erosion if approved through a Shoreline Lease and Use Agreement. There are several applicable guidance documents

for the design and installation of shoreline erosion BMPs. The following publicly available references are useful guides for design engineers and property owners:

- Lower Colorado River Authority (LCRA), Highland Lakes Watershed Ordinance Water Quality Management Technical Manual, 2007
- U.S. Army Corps of Engineers (USACE), Design of Coastal Revetments, Seawalls, and Bulkheads, 1995
- USACE, Low Cost Shoreline Protection: A Property Owner's Guide, 2004
- U.S. Bureau of Reclamation (USBR), Bank Stabilization Design Guidelines, 2015
- U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS), Slope Protection for Dams and Lakeshores, 1997
- USDA NRCS, Engineering Field Handbook Chapter 16: Streambank and Shoreline Protection, 1996
- USACE, Engineer Manual 1110-2-1601. Hydraulic Design of Flood Control Channels, Chapter 3, Riprap Protection, 1994
- USBR, Design Standards No. 13, Embankment Dams, Chapter 7, Riprap Slope Protection, 2014
- National Concrete Masonry Association, Design Manual for Articulating Concrete Block (ACB) Revetment Systems, 2010
- National Concrete Masonry Association, Design Manual for Segmental Retaining Walls, 2010
- U.S. Federal Highway Administration (FHWA), Mechanically Stabilized Earth Walls and Reinforced Soil Slopes Design and Construction Guidelines, 2004

Bulkheads

Bulkheads are vertical walls constructed of concrete, steel, or aluminum sheet piling (see **Figures 1, 2, and 3**). They are most commonly installed parallel to the shoreline. Bulkheads can provide robust shoreline erosion protection by acting as physical barriers between the water and ground surface and can act as retaining walls for the shoreline. Although bulkheads must be designed to prevent overtopping, bulkheads at Bois d'Arc Lake are not allowed to exceed the minimum required height and backfilling behind a bulkhead for the purpose of leveling the ground surface along the shoreline is not allowed. Bulkheads can increase erosion of shorelines adjacent to the bulkhead as wave energy travels perpendicular to the shoreline until it dissipates into an unprotected segment of shoreline.

Bulkheads require seepage control components to balance hydrostatic loads and allow groundwater flow to the lake and, in high lake conditions, back from the lake into the groundwater system. Bulkheads must be designed and constructed for the range of lake level fluctuations and wind-wave conditions to manage potential overtopping and erosion. Failure of a

bulkhead can occur because of scouring at the base of the bulkhead from wave action and the toe of the structure must be protected. Toe scouring is of concern for Bois d'Arc Lake given the potential for significant ranges in water level and for prolonged periods of low water that may have a greater effect on the toe of a bulkhead than might typically be expected in a lake situation.

Bulkheads can be constructed along any shoreline and require moderate maintenance, depending on the construction material chosen. Steel sheet pile walls will eventually need to be replaced because of corrosion of the materials. However, newer materials such as vinyl sheet piles are now being used for seawall and bulkhead applications. These vinyl systems are corrosion-resistant, UV-resistant, and resistant to rotting/cracking.

Each bulkhead must be designed based on location-specific conditions such as substrate types, expected wave action, hydraulic conditions, and existing bank stability. Geotechnical investigations and hydraulic modeling may be required to characterize site conditions. Site conditions will dictate the types of materials used and the bulkhead design requirements. Bulkhead design, including pile thickness and embedment depth, is dependent on bulkhead height and soil conditions, and they must be designed by a professional engineer licensed in the State of Texas. Basic design requirements for bulkheads include the following:

- Toe protection is required, to mitigate scouring
- Seepage control is required, to balance hydrostatic loads
- Concrete bulkheads must be designed to resist sliding and overturning
- All metal components (piling, connections, anchoring, etc.) should be corrosion-resistant

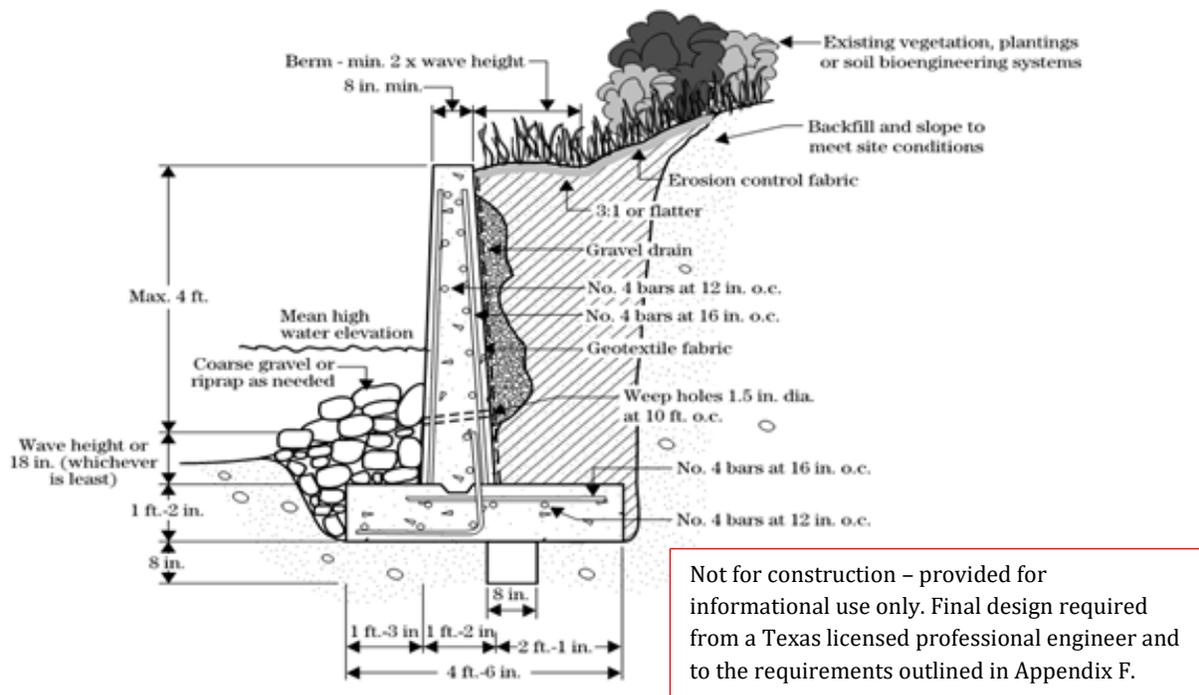


Figure 1. Bulkhead Example, Pour-In-Place Concrete Wall Cross Section (USDA 1996)

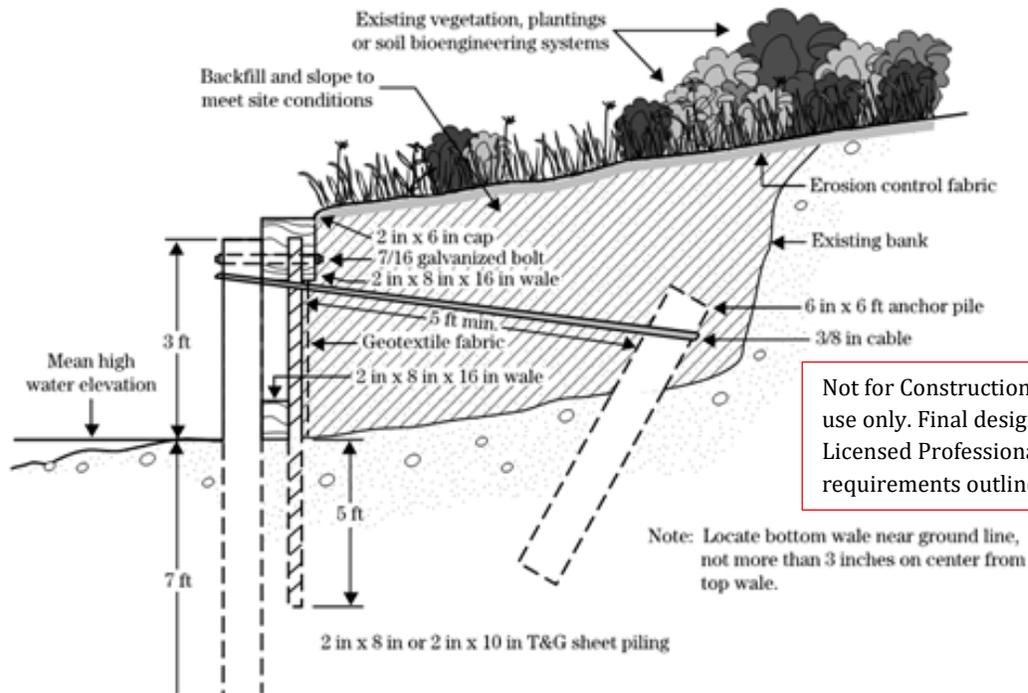


Figure 2. Bulkhead Example, Sheet Piling Cross Section (USDA 1996)



Figure 3. Shoreline Bulkhead Examples (chesapeakebay.net)

Revetments

Revetments are armoring structures consisting of rock, concrete, cellular blocks, or other materials installed to fit the slope and shape of the shoreline (see **Figures 4, 5, 6, and 7**). A rock revetment (riprap) is the installation of large rocks along a shoreline (**Figure 4**). Rocks may be angular or rounded materials sized to withstand the expected erosive forces at the site. A concrete revetment is an arrangement of concrete structures installed to fit the shape of the graded shoreline slope. Various concrete component shapes, sizes, and configurations may be used as revetments, such as walls, articulated concrete blocks (**Figures 5 and 6**), or A-jacks (**Figure 7**). All revetments provide an immediate barrier against erosion.

These BMPs have long-term stability and a long life with little maintenance required. They can also be designed for high wave-energy areas and their flexibility may allow them to reform if the foundation is eroded away or settlement occurs. Each revetment design must consider location-specific conditions such as bank slope and stability, expected wave action, hydraulic conditions, and anticipated scour depths. Geotechnical investigations and hydraulic modeling may be required to characterize site conditions.

Revetments may result in many of the same problems as may occur with bulkheads. Revetments must be designed to prevent overtopping, but they may not exceed the minimum required height and backfilling behind a revetment for the purpose of leveling the ground surface along the shoreline is not allowed. Revetments can increase erosion of shorelines adjacent to the structure as wave energy travels perpendicular to the shoreline until it dissipates into an unprotected segment of shoreline. Revetments are also subject to toe failure, particularly in areas with large water level fluctuations, and although a revetment will slump to fill a toe failure, at some point the entire structure will fail.

As with other structural erosion protection measures, revetments must be designed by a professional engineer licensed in the State of Texas. Basic design requirements for revetments include the following:

- Revetment materials should be selected and sized based on expected erosive forces at the site. Riprap sizing shall be per Texas Department of Transportation (TXDOT) Specification 432, Riprap.
- The maximum recommended shoreline slope for a revetment is 1 foot vertical to 1.5 feet horizontal. Grading may be required to achieve this slope.
- The revetment should extend up the bank to the elevation at which vegetation will provide adequate soil stabilization. Potential wave runup should be considered to determine the full extent of the revetment.
- The base of the revetment must be founded below the maximum scour depth or placed on nonerosive material. Consideration should be given to the potential for prolonged periods of low water, which may focus wave energy at the base of the revetment.
- Toe protection, including toe buttresses, is required to prevent failure. Providing a toe trench per TXDOT standards is also a method of buttressing the riprap at the toe.
- Filter or bedding material underlying the revetment should be at least 6 inches thick.
- For rock revetments, the minimum recommended riprap thickness should be approximately 1.5 times the maximum stone diameter.
- Commercial articulated concrete blocks must be performance tested to ensure hydraulic stability under the expected site conditions. Articulated concrete blocks must be manufactured to comply with ASTM International (ASTM) D6684 standards on composition and physical properties.

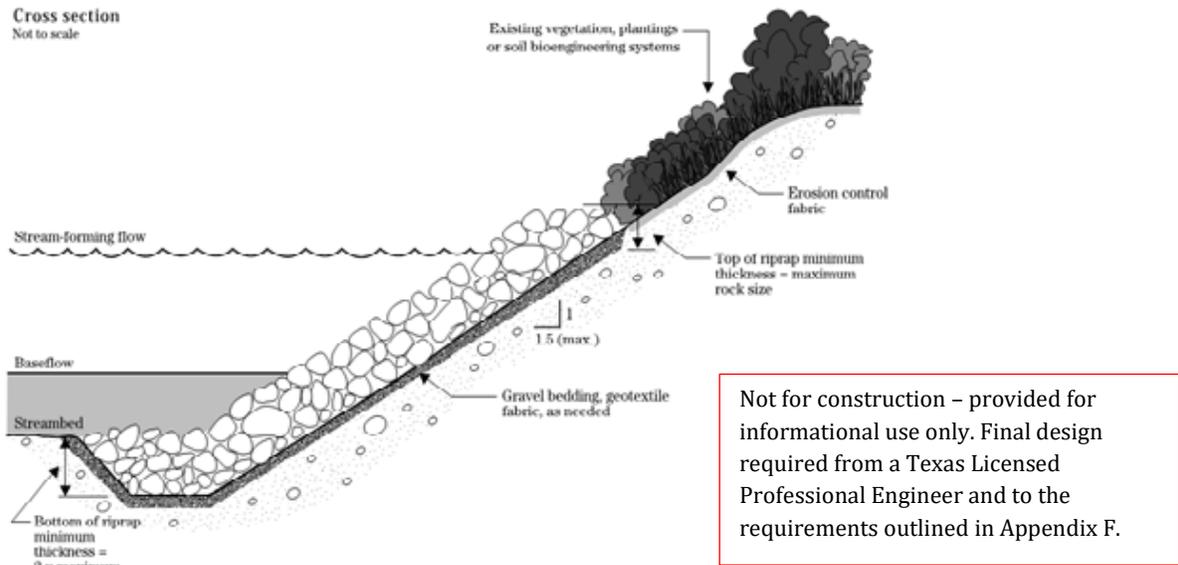


Figure 4. Rock Revetment Example Cross Section (USDA 1996)



Figure 5. Articulated Concrete Blocks Example (Acfenvironmental.com)



Figure 6. Example of Articulated Concrete Matting Erosion Control (iecsusa.com)

An articulated concrete block structure must meet the minimum criteria outlined in **Table 1** in **Appendix F**. Articulated concrete block structures must be designed by a professional engineer licensed in the State of Texas.

Geotextile used as filters below the ACB shall be a woven fabric. The geotextile shall meet the material properties specified in American Association of State Highway and Transportation Officials (AASHTO) M 288 for Class 2 strength property requirements and for permanent erosion control. Filter requirements in AASHTO M 288 shall be based on in situ soil with less than 15 percent passing the 0.075-millimeter sieve opening. Geotextile used as a filter below the ACB shall be a woven fabric and shall meet the requirements specified in **Table 2** in **Appendix F**. The property values (except for apparent opening size [AOS]) represent minimum average roll values in the weakest principal direction.



Figure 7. Example of A-Jack Revetment (conteches.com)

G1.2.2 Nonstructural Erosion BMPs

Soft BMPs combine mechanical, biological, and ecological elements to control erosion and stabilize soil by using vegetation or a combination of vegetation and construction materials. While NTMWD encourages the use of soft erosion control BMPs, they may not be substituted for hard erosion control BMPs associated with private boat docks. Soft erosion control BMPs may be utilized as an adjacent feature to supplement a hard BMP or as a standalone measure where hard BMPs for shoreline erosion control are not required. Soft erosion control BMPs are typically systems of living plants that can provide immediate protection of shorelines while promoting vegetative growth with a healthy root zone, which increases the shoreline's resistance to erosion. Some are a combination of hard elements with plants incorporated into the overall design. They may provide shoreline erosion protection, productive riparian habitats, shade, cover for fish, and improvements in aesthetic value and water quality.

Soft BMPs may require periodic maintenance in order to remain effective and not lose their aesthetic value. During selection of appropriate soft BMPs, it is important to note the expected fluctuations in reservoir water levels, which may not support the types of vegetation required for some vegetated shoreline BMPs. Prolonged periods of high or low water may result in plant death and the loss of the erosion control benefits. Soft BMPs, if used, should be developed based on specific site conditions, and professional assistance in design may be desired.

The most effective nonstructural measure is the retention of native vegetation both along the shoreline and between any structures and the water. Both herbaceous and woody vegetation are

important in controlling stormwater runoff and preventing erosion. Vegetation can prevent erosion both from stormwater runoff from the land and from wave action from the lake.

Other nonstructural BMPs may include:

- Maintaining and promoting (not mowing) shoreline vegetation within certain areas (woody vegetation may not be removed without a vegetation modification agreement)
- Use of BMPs to prevent erosion during construction activities that disturb the ground surface, such as the use of silt fences
- Regulation of septic systems and water wells (septic systems are not allowed on NTMWD land or on NTMWD easements)
- Restrictions on the use of fertilizers, herbicides, pesticides, and other chemicals around the lake and in the tributary area (herbicides and pesticides may only be used with NTMWD approval)
- Preservation of wetlands in the tributary area in accordance with federal, state, and local regulations (specific littoral wetlands around the lake are designated as Environmentally Sensitive and use is restricted in these areas; however, other wetlands may exist along the shoreline)

For the greatest effectiveness, both structural and nonstructural BMPs are recommended to be used in combination at the reservoir shoreline and throughout the tributary area. This will help manage shoreline erosion, protect lake water quality and provide long-term, cost-effective lake management. NTMWD also encourages installation of BMPs on upland private property, where appropriate.

G1.3 Stormwater Control BMPs

Stormwater runoff can cause significant impacts on shoreline stability and water quality if not managed proactively. These impacts can be significantly exacerbated by land development, grading, and increase in impervious cover. Unmanaged stormwater runoff can increase the risk of flooding, cause erosion, degrade water quality, increase sediment transport, and impact recreational activities and fish and wildlife habitat. The BMPs included in this section can help mitigate these impacts if implemented correctly and in accordance with an effective strategy. Effective stormwater BMPs may be implemented either on NTMWD-owned property and easements or on the adjacent private property.

Low-impact development (LID) is described by the U.S. Environmental Protection Agency (EPA) as an approach to land development that utilizes nature to manage stormwater as close to its source as possible. LID preserves or recreates natural landscape features to minimize effective imperviousness while also creating a functional and appealing drainage site that treats stormwater as a resource rather than a waste stream. Through the practice and principles of LID, water can be managed in a way that reduces impacts of built areas and promotes natural movement of water within an ecosystem or watershed. LID can be applied to new development, redevelopment, or as retrofits to existing development. Vegetated filter strips, bioswales, rain

gardens and rain barrels are LID BMPs suitable in rural environments. Bioretention basins may also be suitable for use in lakeside environments. Although not a LID BMP, sand and media filters may be useful for marina developments that have large impervious surface lots and roofs for support facilities. LID solutions are not discussed further in this appendix.

Stormwater BMPs can be relatively simple to implement and may not require detailed engineering. Some types of systems that capture and filter stormwater may require designs produced by a professional engineer licensed in the State of Texas. BMPs that involve excavation or disturbance of vegetation, or the ground surface proposed for NTMWD-owned property would require approval through a Shoreline Lease and Use Agreement prior to construction or implementation. BMPs that are offered for credit against annual fees must be noted on the applicable Shoreline Lease and Use Agreement.

G1.3.1 Vegetated Filter Strips and Bioswales

Vegetated filter strips (VFSs) are strips of vegetation extended over a gentle slope, which use the biological and physical properties of the vegetation and infiltration to remove sediment and other pollutants from sheet flow runoff. VFSs can be installed parallel to the shoreline slopes and can convey and treat shallow concentrated flow. Bioswales are vegetated depressions with mild side slopes that generally provide a combination of retention and detention with conveyance for larger storms.

VFSs and bioswales can be used to treat stormwater runoff from low-density, impervious areas along the lake perimeter, or along linear impervious surfaces such as roadways or sidewalks (see **Figures 8, 9, and 10**). These BMPs are a cost-effective method to control runoff from backyards and other lake perimeter areas that cannot be easily collected, stored, and treated by other BMPs. They provide effective protection for water quality and erosion prevention without impacting the aesthetics of the lands adjacent to the lake. The following documents provide detailed guidance for design, installation, and maintenance of these BMPs:

- LCRA, Highland Lakes Watershed Ordinance Water Quality Management Technical Manual, 2007
- Texas Commission on Environment Quality (TCEQ), *Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices*, 2005
- Texas Transportation Institute, *Design Methods, Selection, and Cost-Effectiveness of Stormwater Quality Structures*, 2000

Basic design recommendations for VFSs and bioswales include the following:

- A drainage area of less than 3 acres is recommended for each VFS or bioswale. Larger drainage areas may result in flows that erode or bypass the VFS.
- VFS may not be suitable for areas with slopes greater than 10 to 12 percent and with fewer than 6 inches of surface soil. Soils may be built up to provide the required thickness for infiltration.

- A VFS width of at least 45 feet is recommended. VFS are recommended to have at least 70 percent vegetative cover. Vegetation may be herbaceous grasses or woody trees and shrubs but may not include managed turf grass.
- Bioswales may not be suitable on sites with slopes greater than 5 percent.

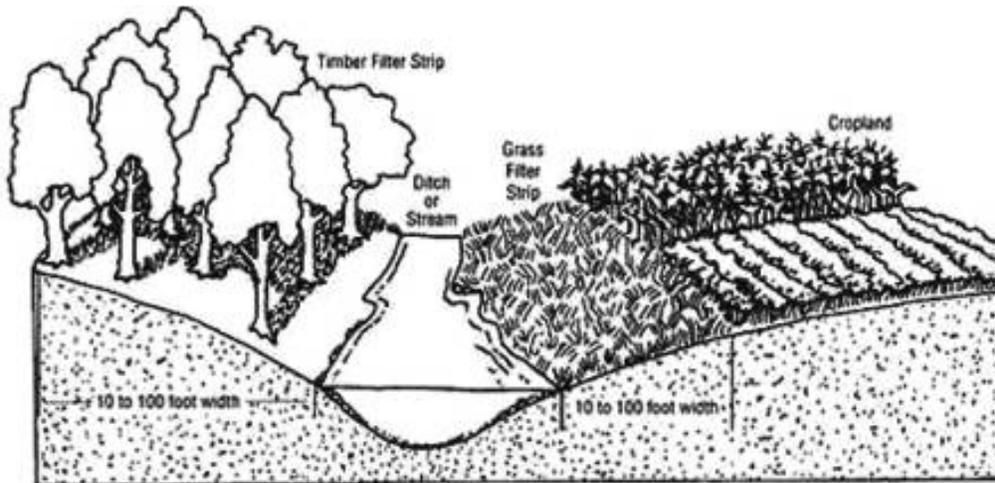


Figure 8. Vegetated Filter Strips Prevent Pollutants from Entering Water Bodies (Wilmoth et al. 2019)



Figure 9. Vegetated Filter Strip Along Shoreline (Lake County Illinois 2019)



Figure 10. Bioswale Example

G1.3.2 Rain Gardens and Rain Barrels

A rain garden (see **Figure 11**) is a depressed area in the landscape that collects rainwater from a roof, driveway, or street and allows it to soak into the ground. Typically planted with native grasses and flowering perennials, rain gardens can be a cost-effective and aesthetic way to reduce runoff from a property while providing some wildlife habitat.

Design and construction of a rain garden typically involves the following steps: site selection based on site soil types and drainage patterns, determining catchment area based on expected runoff volumes, rain garden sizing and design of underdrain or overflow structures (if necessary), garden construction, and native plant installation. Basic maintenance may involve routine weeding and watering. There are numerous publicly available fact sheets and design guides for the design and installation of rain gardens, including:

- Texas A&M AgriLife Extension Publication B-6427, Stormwater Management: Rain Gardens, 2012
- Texas A&M AgriLife Extension Publication, Rain Gardens Fact Sheet, 2008
- USDA NRCS, Iowa Rain Garden Design and Installation Manual, 2008

Basic design and construction considerations for rain gardens include:

- Locate underground utilities before any excavation
- Basic soil permeability tests are required to determine if soils are suitably well-drained
- Do not place a rain garden upslope of a building or within 10 feet of a building foundation
- Do not install a rain garden on or near a septic drain field
- Rain gardens are not recommended in highly sloped areas or areas with mature trees
- Plants are recommended to be native species that are adapted to periodic inundation and drought conditions



Figure 11. Rain Gardens Adjacent to a Lake (epa.gov; Lakesuperior.org)

Installing a rain barrel (see **Figure 12**) can reduce the volume of stormwater runoff and improve water quality in receiving water bodies. Diverting runoff from roofs into a rain barrel reduces the amount of stormwater being discharged across the ground surface to nearby streams and lakes. Collecting rooftop runoff in rain barrels and reusing it for other purposes (e.g., lawn irrigation) can help to control local flooding, recharge local groundwater resources, reduce erosion, and prevent pollutants from entering water bodies, thereby improving water quality.

The size and complexity of the rain barrel system is dependent on the desired end use for the rainwater. The simplest setup is to install a 50- to 75-gallon drum to collect rainwater for lawn or plant bed irrigation. Use of rainwater for domestic purposes or watering edible plants may require additional water treatment steps to ensure safety. Numerous references provide detailed guidance for the implementation of rainwater harvesting systems, including rain barrels. Examples include the following references:

- Texas Water Development Board, *Texas Manual on Rainwater Harvesting*, 2005
- TCEQ, *Quality Guide to Yard Care*, 2019

Basic rain barrel design and installation recommendations include:

- Rain barrels should be placed on a stable, level pad of gravel, sand, or concrete
- Barrel materials should be inert and nontoxic to maintain water quality and opaque to prevent algae growth
- The barrel should be covered or sealed with a fine mesh to limit mosquito activity
- Minimum maintenance should include regularly using all of the stored water, emptying and cleaning the barrel once per year, and cleaning roof gutters at least twice a year to reduce debris



Figure 12. Typical Rain Barrel Setup (glacvcd.org)

G1.3.3 Bioretention Basins

Bioretention basins are engineered, planted depressions designed to collect stormwater runoff. Bioretention basins utilize infiltration and filtration through soils and vegetation to provide both water quantity and water quality benefits (see **Figures 13, 14, and 15**). Bioretention basins are effective for reducing pollutant loading and commonly considered visually appealing. The vegetation, microbes, and soils in bioretention basins provide additional treatment and removal of pollutants from stormwater runoff.

Bioretention basins are similar to rain gardens but are typically more highly engineered to meet specific stormwater management goals and thus may require a formal design by a professional engineer licensed in the State of Texas. Basin size, shape, depth, location, and components should be determined based on soil conditions and surface hydrology at the site. Bioretention basins can be distributed over an area to capture runoff from small drainage areas. Bioretention basins often

require regular maintenance, including vegetation management and periodic inspection and cleaning of sediment traps. The following documents provide detailed guidance for bioretention basin design, installation, and maintenance:

- TCEQ, *Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices*, 2005
- LCRA, *Highland Lakes Watershed Ordinance Water Quality Management Technical Manual*, 2007
- New Jersey Department of Environmental Protection (NJDEP), *New Jersey Stormwater Best Management Practices Design Manual – Section 9.1, Bioretention*, 2004
- Virginia Department of Transportation, *BMP Design Manual of Practice – Chapter 11, Bioretention*, 2013

Basic design considerations for bioretention basins include the following:

- The designed infiltration rate should generally be a minimum 0.5 inches per hour to ensure adequate infiltration.
- The standing water depth during the design storm should not exceed 6 inches to avoid development of anaerobic conditions.
- The soil filtration medium should be, at minimum, 3 feet thick.
- The bottom of the basin should be, at minimum, 2 feet above the seasonally high water table and greater than 4 feet from bedrock.
- Bioretention basins should be at least 20 feet from a building foundation. Basins should not be within 100 feet upslope of a building.
- An underdrain is recommended for all designs. A basin liner must be used for basins in the recharge zone.

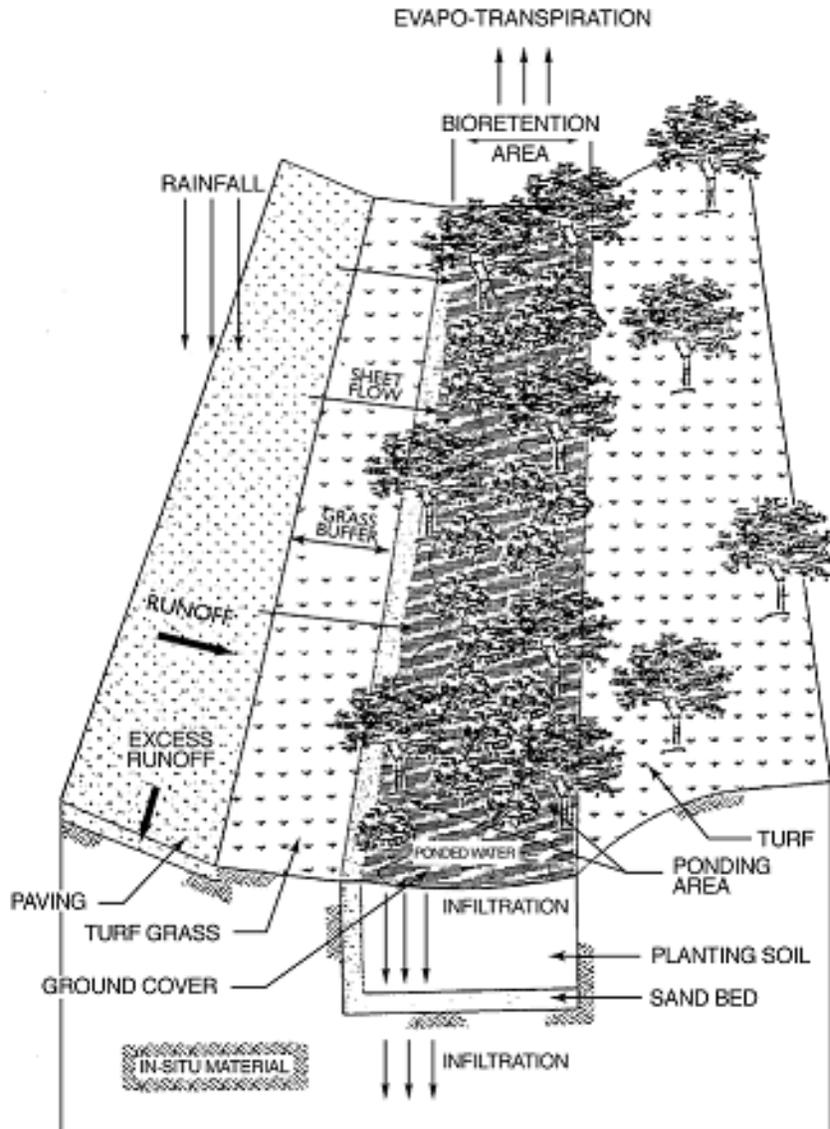


Figure 113. Bioretention Basin Example



Figure 124. Bioretention Basins (stormwater.wef.org)

Not for construction – provided for informational use only. Final design may require assistance from a Texas licensed professional engineer.

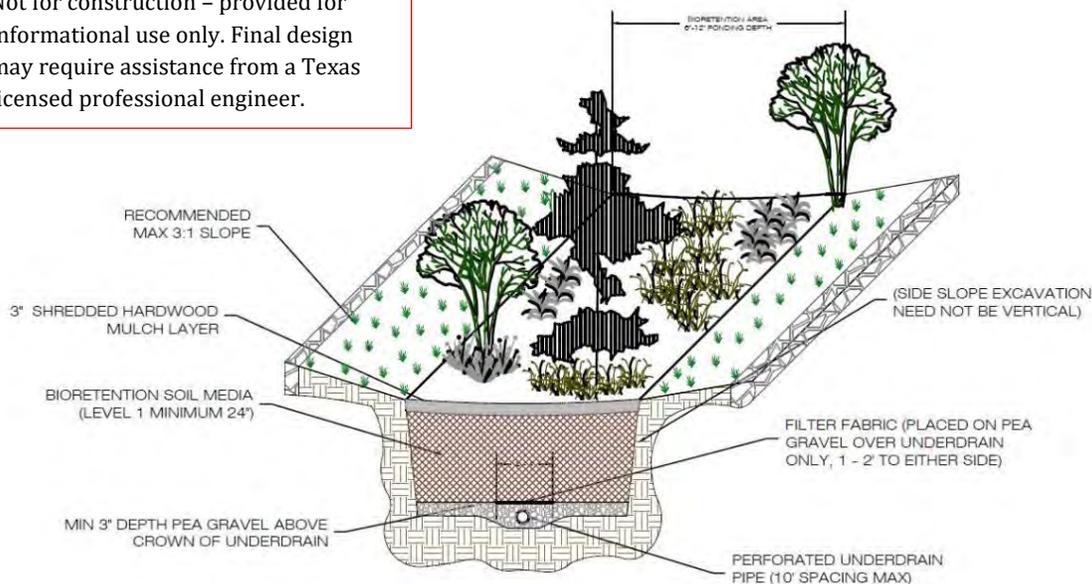


Figure 135. Typical Bioretention Basin Detail (Virginia DEQ 2011)

G1.3.4 Sand and Media Filters

Sand and media filters are versatile, well-established BMPs that provide treatment of stormwater runoff by filtration through sand or other filtration media to provide water quality treatment (see **Figures 16 and 17**).

Sand and media filters are most suitable for situations where there are large amounts of impervious cover (e.g., subdivisions, commercial developments). For example, marina developments may have large surface parking lots and roofs for support facilities that generate a lot of stormwater runoff over a concentrated area. Even though much of the impervious surface from a subdivision or a commercial operation could be located on the adjacent private land, the stormwater BMP would need to be placed at the low point of the drainage basin, which would

most likely be along the shoreline. The following documents provide detailed guidance for media filter design, installation, and maintenance:

- TCEQ, *Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices*, 2005
- Texas Transportation Institute, *Design Methods, Selection, and Cost-Effectiveness of Stormwater Quality Structures*, 2000
- LCRA, *Highland Lakes Watershed Ordinance Water Quality Management Technical Manual*, 2007
- Virginia Department of Transportation, *BMP Design Manual of Practice – Chapter 12, Stormwater Sand Filters*, 2013
- NJDEP, *New Jersey Stormwater Best Management Practices Design Manual – Section 9.9, Sand Filters*, 2004

Sand and media filters may be designed to drain to underdrains or directly to subsoils (**Figure 13**). Design considerations for filter systems include the size of the site drainage area, depth to water table or bedrock, sediment and debris loading, and medium selection. Sand filters require regular maintenance to remove trash, debris, and sediment. Sand and media filters would require a site-specific design by a professional engineer licensed in the State of Texas. Basic design considerations for media filter systems include the following:

- The filter should be designed such that water filters through the basin within 40 hours
- Water depth in the sedimentation basin, at full flow, should be at least 2 feet and no greater than 8 feet
- The bottom of the structure should be, at minimum, 2 feet above the seasonally high water table to prevent structural damage
- Energy dissipation is recommended at the sedimentation basin inlet to ensure distributed inflow
- Underdrain piping should include a main pipe with a minimum of two lateral branches and several accessible cleanout ports

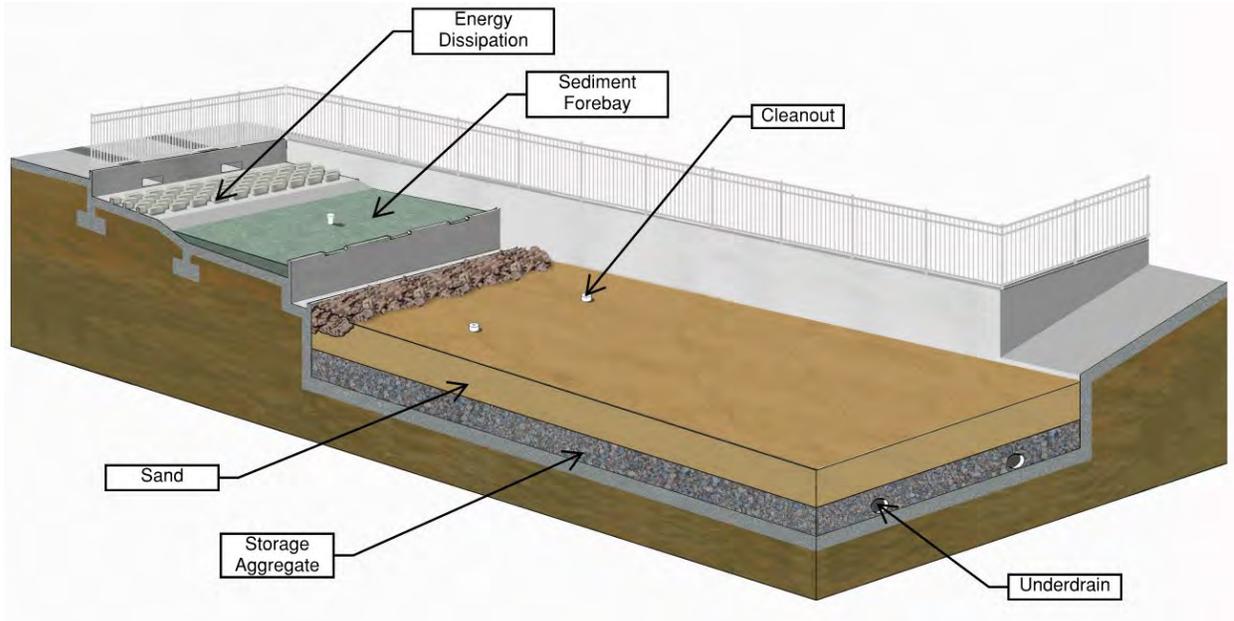
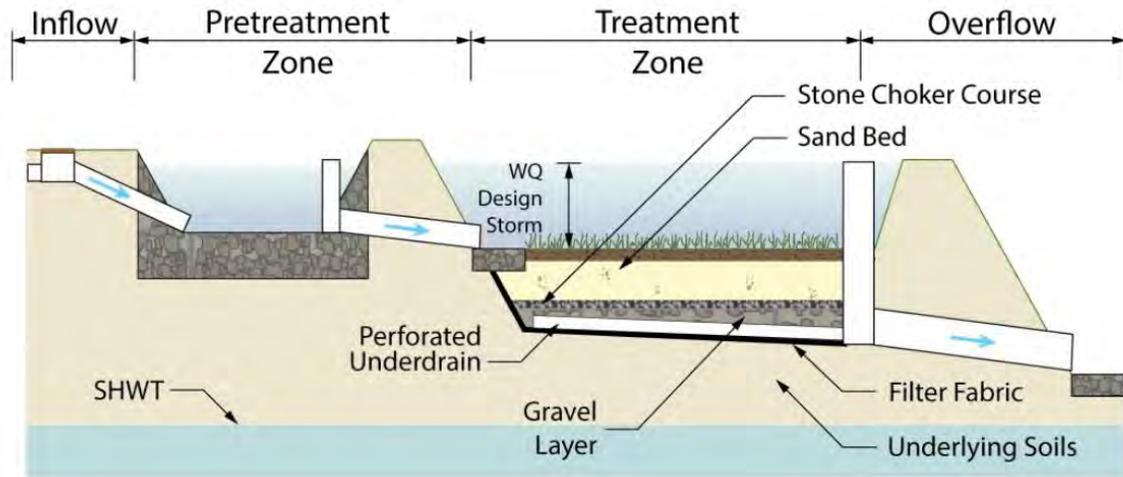
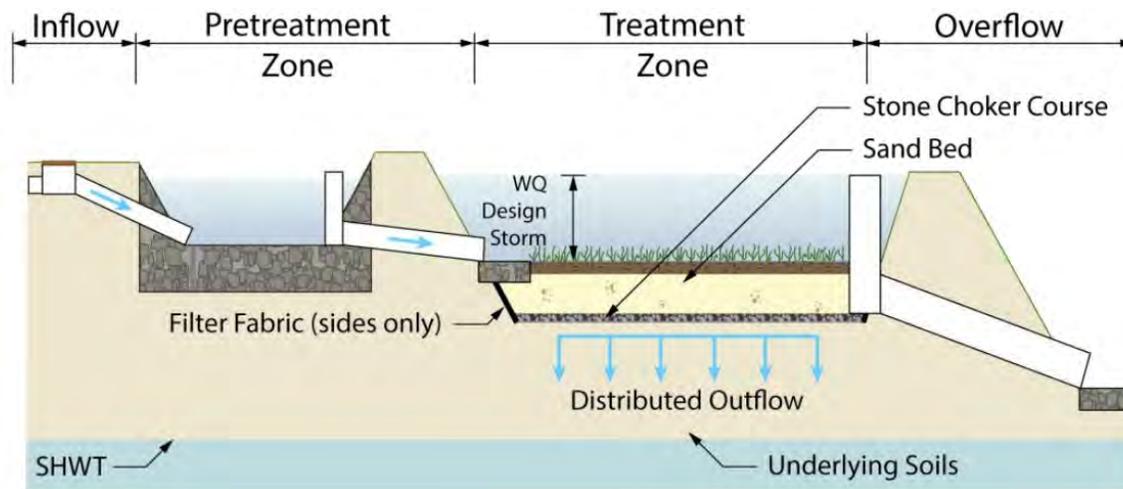


Figure 16. Sand Filter Example (Tarrant Regional Water District 2018)



NOTE:
 → = Direction of Runoff

Not to Scale



NOTE:
 → = Direction of Runoff

Not to Scale

Figure 17. Sand Filter System Configurations. Top: System Draining to Underdrain. Bottom: System Draining to Underlying Soils. (NJDEP 2018)

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Appendix H

Maintaining Water Quality



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Appendix H

Maintaining Water Quality

This appendix addresses activities to maintain high water quality standards in Bois d'Arc Lake. The primary purpose for the construction of Bois d'Arc Lake was to meet the growing demand for high quality potable water supply within the region. This Shoreline Management Plan (SMP) establishes policy and guidelines to manage the activities and facilities around and on the Lake to ensure that water quality standards in the Lake are maintained in a sustainable manner. Guidelines in the Fannin County Comprehensive Plan and the Lake Zoning Regulations were also developed to protect water quality and the natural beauty of the Lake.

The North Texas Municipal Water District (NTMWD) and Fannin County determined it is appropriate to allow recreational public use of the Lake and provide for limited private uses by property owners adjacent to the Lake. To accomplish this, the NTMWD and Fannin County must create a balance between allowable private/public uses and for the protection of natural resources to meet water quality standards.

Primary Challenges for Maintaining Water Quality Standards

There are three major management challenges to consider for maintaining water quality standards:

- Stormwater runoff
- Use of pesticides, herbicides, and fertilizers
- Wastewater treatment facilities

There are several best management practices (BMPs) for each of the above challenges that can be implemented to help ensure water quality standards are achieved and maintained.

Stormwater Runoff

Unmanaged stormwater runoff can cause erosion, degrade water quality, increase sediment transport, impact habitat and ecology, and degrade enjoyment of recreational activities. More specifically, pollutants in runoff can lead to a nutrient imbalance, excessive algal growth, decreased fishing success, and eutrophication. Erosion can lead to increased turbidity and a reduction in light penetration. BMPs to help minimize these impacts include implementing low-impact development (LID) activities. LID utilizes nature to manage stormwater runoff as close to its source as possible. LID preserves or recreates natural landscape features to minimize imperviousness while also creating a functional and appealing drainage site that treats stormwater runoff as resource rather than a waste stream. Stormwater runoff can be managed in a way that reduces impacts and promotes natural movement of water within an ecosystem or watershed.

Use of Pesticides, Herbicides, and Fertilizers

To maintain water quality for drinking water and recreational uses, the Lake must be protected from excess exposure and application of pesticides, herbicides, and fertilizers along its shorelines. These chemicals have a negative impact on water quality and the environment.

Misuse of fertilizers and pesticides may contribute to increased contamination of surface waters. The application of fertilizers and some pesticides around water bodies can be a source of nutrient inputs to the ecosystem. In the case of fertilizers, increases in nutrients fuel the growth of algae and aquatic weeds and are a major contributor to the degradation of water quality. If the nutrient increases are severe enough, eutrophication may occur, resulting in dense plant/algae growth, increases in microbial biomass, and hypoxia or anoxia due to algae oxygen consumption. Nutrient pollution may also lead to harmful algal blooms, which are increases in algae and cyanobacteria that produce toxins that can be detrimental to fish and other animals. These toxins can move up the food chain through biomagnification, which increases toxin concentrations at each successive higher trophic level.

The best way to reduce water contamination from fertilizers and pesticides is through prevention. This can be accomplished through chemical user education and compliance, monitoring of water quality, permitting efforts, and the application of buffer zones. BMPs include:

- Use of these substances is prohibited on NTMWD-owned property, unless specifically authorized through issuance of a Shoreline Use Agreement or Natural Resources Management Notification.
- Use of pressure-treated wood on NTMWD-owned property is strictly prohibited.
- Creation of buffer zones along the shoreline. All land-based facilities authorized through a Shoreline Use Agreement must be set back from the 534' MSL contour for a minimum distance of 50 feet.
- Storage of any hazardous substance on NTMWD-owned property is strictly prohibited.

Wastewater Treatment Systems

The use of centralized sewage systems, septic tanks, or other on-site sewage treatment facilities (OSSFs) adjacent to Bois d'Arc Lake can potentially affect water quality in the Lake, affecting its use as a recreational resource and potable water supply. The Fannin County Comprehensive Plan for Bois d'Arc Lake indicates that subdivisions with individual OSSFs will comply with the Fannin County regulations for OSSFs. The Texas Commission on Environmental Quality provides regulations for OSSFs. These regulations indicate that OSSFs must be designed based on a site evaluation that accounts for local conditions. OSSFs must have a permit prior to any construction, installation, repair, extension, or other alteration. Any work on an OSSF must be performed by a licensed installer or directly by the homeowner. In Fannin County, local authorities are responsible for ensuring that OSSFs comply with all state requirements (<http://www.co.fannin.tx.us/page/fannin>).

Permanent Flowage and Flood Easements between adjacent property owners and the NTMWD indicate that any portion of the easement shall not be used in conjunction with any septic system or other sewage disposal system. Therefore, septic tanks and other OSSFs are essentially prohibited on property controlled by the NTMWD to protect the water quality of the reservoir. Placement of any type of centralized sewage systems, septic tanks, or other OSSFs is strictly prohibited on NTMWD-owned property.

The Texas Water Safety Act (2019) includes provisions to protect water quality. Pursuant to the Texas Water Safety Act, violations of the TCEQ Sewage Disposal Regulations constitute a misdemeanor. Game wardens, marine safety enforcement officers, peace officers who are

certified as marine safety enforcement officers, and the county’s designated representative can enforce these regulations if they suspect sewage disposal violations, such as sewage discharge in prohibited areas or improper operation of marine sanitation devices. TCEQ requires any boat with a permanently installed marine sanitation device that operates on any water in Texas to have a marine sanitation device certification and display the certification decal. The Fannin County Lake Zoning Regulations (2018) state that “No operation or activity shall discharge or cause to be released into public waters any liquid or solid waste unless in conformance with the latest provisions of TCEQ, Texas Department of Health, and/or Texas Railroad Commission” (Section 3.05). Additionally, the Fannin County Sheriff has the ability to enforce environmental regulations such as prohibiting illegal dumping.

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Appendix I Native Plant List



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Appendix I

Native Plant List

Following is the native species plant list for Bois d'Arc Lake. This plant list is adapted from the recommended native plant list for East Texas developed by the North Central Chapter of the Native Plant Society of Texas¹ and the Texas A&M AgriLife Research/Extension Program². These plants are acceptable for planting on NTMWD-owned property. All plantings must be approved through a shoreline lease and use agreement. All proposed plantings will also require a simple planting diagram that identifies the location where each plant will be planted, along with the common name of the plant.

Large Shade Trees

American Elm (*Ulmus americana*)
American Sycamore (*Platanus occidentalis*)
Black Oak (*Quercus velutina*)
Black Walnut (*Juglans nigra*)
Burr Oak (*Quercus macrocarpa*)
Cedar Elm (*Ulmus crassifolia*)
Chinquapin Oak (*Quercus muehlenbergii*)
Eastern Cottonwood (*Populus deltoides*)
Hackberry (*Celtis laevigata*)
Nuttall Oak (*Quercus texana*)
Pecan (*Carya illinoensis*)
Post Oak (*Quercus stellata*)
Shumard's Oak (*Quercus shumardii*)
Slippery Elm (*Ulmus rubra*)
Southern Red Oak (*Quercus falcata*)
Sugarberry (*Celtis laevigata*)
Texas Hickory (*Carya texana*)
Texas Red Oak (*Quercus buckleyi*)

¹ Grant, G. 2012. Recommended Native Plant List for East Texas. North Central Chapter, Native Plant Society of Texas. Available at:

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³ Cummings, C. 2023. Personal Communication; Review of Native Plant List. Texas A&M AgriLife Research/Extension Program. June 29, 2023.

⁴ Klose, R. 2023. Personal Communication; Review of Native Plant List. USDA-NRCS District Conservationist, Bonham, TX. July 14, 2023.

Water Oak (*Quercus nigra*)

Willow Oak (*Quercus phellos*)

White Oak (*Quercus alba*)

Medium Sized Trees

American hornbeam (*Carpinus caroliniana*)

Bitternut Hickory (*Carya cordiformis*)

Black Cherry (*Prunus serotina*)

Black Hickory (*Carya texana*)

Blackjack Oak (*Quercus mariloandica*)

Black Willow (*Salix nigra*)

Boxelder (*Acer negundo*)

Ohio Buckeye (*Aesculus glabra*)

Osage Orange (*Maclura pomifera*)

Red Maple (*Acer rubrum*)

Red Mulberry (*Morus rubra*)

River Birch (*Betula nigra*)

Texas Live Oak (*Quercus fusiformis*)

Small Ornamental Trees

Carolina Buckthorn (*Frangula caroliniana*)

Eve's Necklace (*Sophora affinis*)

Farkleberry (*Vaccinium arboreum*)

Flowering Dogwood (*Cornus florida*)

Mexican Plum (*Prunus mexicana*)

Parsley Hawthorn (*Crataegus marshallii*)

Prairie Sumac (*Rhus lanceolata*)

Red Buckeye (*Aesculus pavia*)

Redbud (*Cercis canadensis*) includes Texas Redbud (*C.C. var texensis*) subspecies

Roughleaf Dogwood (*Cornus drummondii*)

Rusty Blackhaw (*Viburnum rufidulum*)

Smooth Sumac (*Rhus glabra*)

Texas Crabapple (*Malus ioensis var. texana*)

Winged Sumac (*Rhus copallina*)

Large Shrubs

Burning Bush (*Euonymus atropurpureus*)

Chickasaw Plum (*Prunus angustifolia*)

Gum Bumelia (*Sideroxylon lanuginosum*)

Possumhaw Holly (*Ilex decidua*)

Wax Myrtle (*Myrica cerifera*)

Western Soapberry (*Sapindus saponaria* var. *drummondii*)

Medium Sized Shrubs

American Beauty Berry (*Callicarpa americana*)

Buttonbush (*Cephalanthus occidentalis*)

Elbowbush (*Forestiera pubescens*)

Elderberry (*Sambucus canadensis*)

Small Shrubs

Coralberry (*Symphoricarpos orbiculatus*)

Dwarf Wax Myrtle (*Myrica pusilla*)

Vines

American Wisteria (*Wisteria frutescens*)

Coral Honeysuckle (*Lonicera sempervirens*)

Crossvine (*Bignonia capreolata*)

Muscadine (*Vitis rotundifolia*)

Virginia Creeper (*Parthenocissus quinquefolia*)

Perennials

Bee Balm or Horsemint (*Monarda fistulosa*)

Brown-eyed Susan (*Rudbeckia triloba*)

Blazing Star/Gay Feather (*Liatris mucronata*)

Butterfly Milkweed (*Asclepias tuberosa*)

Cardinal Flower (*Lobelia cardinalis*)

Coreopsis, Plains (*Coreopsis lanceolata*)

Cutleaf daisy (*Engelmannia pesistenia*)

Fall/Aromatic Aster (*Aster oblongifolius*)

Giant Coneflower (*Rudbeckia maxima*)

Illinois Bundleflower (*Desmanthus illinoensis*)

Louisiana Yucca (*Yucca louisianensis*)

Maximillian Sunflower (*Helianthus maximiliani*)

Mealy Cup Sage (*Salvia farinacea*)

Mexican Hat (*Ratibida columnifera*)

Mexican Mint Marigold (*Tagetes lucida*)

Mist Flower/Perennial Ageratum (*Eupatorium coelestinum*)

Phlox (*Phlox pilosa*)

Pitcher Sage (*Salvia azurea*)
Prickly Pear (*Opuntia sp.*)
Purple Prairie Coneflower (*Dalea purpurea*)
Queen Anne's Lace/Wild Carrot (*Daucus carota*)
Rain Lilies (*Cooperia, Habranthus, Zephyranthese sp.*)
Rattlesnake Master (*Eryngium yuccifolium*)
Rose Mallow Hibiscus (*Hibiscus sp.*)
Showy milkweed (*Asclepias speciosa*)
Spider Lilies (*Hymenocallis sp.*)
Texas Aster (*Aster texanus*)
Texas Star Hibiscus (*Hibiscus coccineus*)
Yellow thistle (*Cirsium horridulum*)

Annuals

American Basketflower (*Centaurea americana*)
American Joint Vetch (*Aeschynomene americana*)
Black-eyed Susan (*Rudbeckia hirta*)
Clasping coneflower (*Dracopis amplexicaulis*)
Deer Pea Vetch (*Vicia ludoviciana*)
Indian Blanket (*Gaillardia pulchella*)
Indian paintbrush (*Castilleja indivisa*)
Leavenworth's Eryngo (*Eryngium leavenworthii*)
Showy partridge pea (*Chamaecrista fasciculata*)
Snow on the Prairie (*Euphorbia bicolor*)
Texas Bluebonnet (*Lupinus texensis*)
Texas Sage (*Salvia coccinea*)
Texas Yellow Star (*Lindheimera texana*)

Grasses

Big Bluestem (*Andropogon gerardii*)
Blue Grama (*Bouteloua gracilis*)
Buffalograss (*Buchloe dactyloides*)
Bushy Bluestem (*Andropogon glomeratus*)
Eastern Gama Grass (*Tripsacum dactyloides*)
Indian Grass (*Sorghastrum nutans*)
Indian Wood Oats (*Chasmanthium latifolium*)
Little Blue Stem (*Schizachyrium scoparium*)
Plains bristlegrass (*Setaria vulpiseta*)(*Setaria leucpila*)

Prairie Wildrye / Canada Wildrye (*Elymus canadensis*)
Purpletop (*Tridens flavus*)
Sand dropseed (*Sporobolus cryptandrus*)
Sideoats Grama (*Bouteloua curtipendula*)
Splitbeard Bluestem (*Andropogon ternarius*)
Switch Grass (*Panicum virgatum*)
Texas wintergrass (*Nassella leucotricha*)
Vine Mesquite (*Panicum obtusum*)
Virginia Wildrye (*Elymus virginicus*)
Walter's Millet (*Echinochloa walteri*)

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Appendix J

Points of Contact



NORTH
TEXAS
MUNICIPAL
WATER
DISTRICT



BOIS
D'ARC
LAKE

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Appendix J

Points of Contact

Lake Manager

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North Texas Municipal Water District

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Fannin County Planning and Zoning Department – Bois d’Arc Lake

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dhopkins@fanninco.net

Texas Parks and Wildlife

4200 Smith School Road
Austin, TX 78744
800-792-1112/512-389-4800

Game Warden
Garland Office
346 Oaks Trail, Suite 100
Garland, TX 75043
972-226-9966

Dispatch Center (24 Hour)
512-389-4848

Texas Department of Transportation

125 East 11th St.
Austin, TX 78701
800-558-9368/512-463-8588
AskTxDOT@txdot.gov

Paris District
1365 North Main Street
Paris, TX 75460
903-737-9300

Texas Commission on Environmental Quality

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Austin, TX 78711-3087
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Region 4: Dallas/Fort Worth
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817-588-5800

Spill Reporting (24 Hour)
800-832-8224

USACE Tulsa District – Regulatory Office

U.S. Army Corps of Engineers
CESWT-RO
2488 E. 81st Street
Tulsa, OK 74137-4290
918-669-7400
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Precinct 3 Commissioner

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Dodd City, Texas

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Dodd City, TX 75438-0129
903-583-7710
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City of Windom, Texas

406 Main St.
P.O. Box 1027
Windom, TX 75492-1027
903-623-3425
<https://www.townofwindomtexas.org/>

City of Honey Grove, Texas

633 N. 6th St
Honey Grove, TX 75446-1884
903-378-3033
www.cityofhoneygrove.org

Appendix K

Frequently Asked Questions



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Appendix K

Frequently Asked Questions

What is the Shoreline Management Plan?

The Shoreline Management Plan regulates the use of the Bois d’Arc Lake (the Lake) shoreline. The shoreline is categorized into different zones or “classifications” that allow for certain types of private uses and/or facilities to occur along various segments of shoreline. Each classification allows or prohibits certain types of uses and provides guidelines for authorizing activities and facilities along each segment of shoreline. The shoreline classification process takes into consideration a variety of elements, such as soil type, slope, vegetation, water depth, and wind and wave action. It also takes into consideration the uses along specific shoreline segments, such as public access, marinas, operational facilities, and environmentally sensitive areas.

Why did North Texas Municipal Water District develop the Shoreline Management Plan?

The purpose of the Shoreline Management Plan is to establish management guidelines for the long-term use and protection of resources in and around Bois d’Arc Lake. The goal of the plan is to protect water quality and water supply into the future. The objective of all management actions is to achieve a balance between approved private uses and resource protection. Adjacent landowners may request permission to use the shoreline if the classification allows the proposed use. The plan identifies the process that will be used for reviewing and issuing Shoreline Lease and Use Agreements to adjacent private property owners.

Why is a Shoreline Management Plan important?

The Shoreline Management Plan will allow North Texas Municipal Water District (NTMWD) to proactively prepare for recreational visitors and resource demands on Bois d’Arc Lake. It will allow for proper management and protection of the shoreline while promoting safe use of the Lake and shoreline for recreational purposes. Shoreline classifications are established through a meticulous analytical process that allows the NTMWD to balance resources such as water quality, fish and wildlife habitat, and aesthetic quality, with approved private uses and general public use. Additionally, the plan establishes streamlined and transparent Shoreline Lease and Use Agreement review and approval procedures, which will allow the Lake Manager and agreement holders to work together to protect the Lake.

Who is responsible for enforcing the Shoreline Management Plan?

NTMWD is responsible for enforcing the provisions of the Shoreline Management Plan. Additionally, NTMWD works in collaboration with Texas Parks and Wildlife, the Fannin County Zoning Commission, and the Fannin County Sheriff’s office to oversee shoreline activities and take actions to prevent unauthorized uses of Bois d’Arc Lake shorelines. NTMWD will ensure that the proposed uses of the shoreline are consistent with the purposes of protecting and enhancing this valuable resource while also encouraging recreational and economic values. Any use or activity on

the NTMWD-owned property around the edge of the Lake must be approved through an agreement with NTMWD.

What is a Shoreline Classification?

The entire shoreline of Bois d'Arc Lake has been classified into one of the following categories:

Description	Shoreline Classification
Shoreline closed to public access for operational security and safety	Restricted
Shoreline closed to public access for protection of environmental resources (e.g., littoral wetlands)	Environmentally Sensitive
No boat dock development allowed; vegetation modification allowed	Limited Development
Potentially suitable for boating access and dock development (site visits confirm eligibility)	Dock Capable Shoreline
Three public boat ramp locations, potential commercial development	Public Lake Access/Commercial Development

How does the Shoreline Management Plan affect adjacent property owners?

To properly manage and protect the resources of Bois d'Arc Lake, NTMWD owns and manages the lands surrounding the Lake, known as the shoreline. In general, the shoreline includes all lands below the 541 mean sea level (MSL) contour. Property owners that own lands adjacent to the shoreline may apply to NTMWD for permission to construct docks, clear vegetation, create access paths, or place land-based recreational features such as picnic tables or gazebos along the shoreline. Activities along the NTMWD-owned shoreline are regulated to properly care for the Lake and preserve water quality. In order to ensure proper use of this land, agreements through NTMWD are required for a number of activities (see later FAQs for more information about each type of agreement). These include the following:

- Shoreline Lease and Use Agreement for long-term uses, including boat docks, vegetation clearing, and access paths
- Special Event/Temporary Use Agreement for short-term (less than 2 weeks) events and uses such as a fishing tournament
- Natural resource management notification is provided to NTMWD prior to hazardous tree removal, noxious weed control, or native plant restoration work
- Mobility assistance vehicle agreement allows persons with mobility issues to use a golf cart, all-terrain vehicle, or utility terrain vehicle to access the shoreline along approved paths

What is a Shoreline Lease and Use Agreement?

Lands located adjacent to shoreline zoned as Limited Development, Dock Capable, or Public Lake Access/Commercial Development may be eligible for a Shoreline Lease and Use Agreement. This agreement allows the long-term use of NTMWD-owned property and may include activities such as

vegetation modification and construction of a private dock facility. No clearing of vegetation or construction of any facilities may occur until an agreement has been approved. Adjacent landowners may walk on NTMWD shorelines and enjoy the land; however, if you wish to construct something, clear vegetation, create a path, or leave something behind on the shore below the 541 elevation, you must apply for a Shoreline Lease and Use Agreement.

What is a special event/temporary use agreement?

Special event or temporary use agreements are intended for short-term uses that do not involve the construction or installation of permanent facilities. This type of agreement authorizes temporary events (less than 2 weeks) involving 25 or more persons or vessels or other short-term temporary uses of NTMWD land and/or water. Examples include fireworks displays, water skiing demonstrations, or fishing tournaments. The event sponsor is responsible for submitting an application to NTMWD at least 60 days before the event.

What is a mobility assistance vehicle agreement?

Motorized vehicles of any sort are generally prohibited from driving on or parking on NTMWD shorelines. Regular motorized vehicle use can damage plants and soils, creating erosion and sedimentation and introducing pollutants from fuel and lubricant leaks. However, persons with mobility issues may require motorized vehicles to access shoreline facilities and docks. Approval of this agreement is generally limited to those unable to access the Lake by foot because of a disability or because of mobility issues. Authorization would be limited to the use of golf carts, all-terrain vehicles (ATVs), or utility terrain vehicles (UTVs) along approved paths.

What is a Natural Resource Management Notification?

Beneficial natural resource management activities may be authorized with a simple notification including removal of up to one hazard tree, control or removal of invasive noxious weeds, or the planting of native plants along the shoreline. There is no fee associated with this notification, but the work is not authorized until the applicant has received a reply from NTMWD. Control or removal of invasive noxious weeds may only use approved herbicides and must follow state rules for application. Only native plants from the approved native plant list may be planted.

How much will the Lake fluctuate on an annual basis?

The water surface of the Lake will fluctuate. The highest elevation limit for the Lake is at approximately the 500-year flood elevation of 545 MSL (0.2 percent chance of occurrence). The 100-year flood elevation for the Lake is 541 MSL (1 percent chance of occurrence). The normal operating pool elevation for the Lake is 534 MSL and this elevation is used as the definition of the “shoreline,” but the water will frequently be at a different elevation. The lowest elevation for the Lake is projected to be around 516 MSL.

Water levels will fluctuate with normal operations and also because of floods or drought. Water levels may change without warning. Some properties along the shoreline of the Lake are encumbered by NTMWD flood and flowage easements, which allow NTMWD to overflow, flood, submerge, store, and impound water on the easement during periods of high water for as long as is necessary. Similarly, water levels may drop at other times and render boat docks inaccessible. NTMWD is not responsible for any damages or changes in the landscape due to these water level fluctuations.

Who owns the property surrounding the Lake?

The boundary line for Bois d’Arc Lake was established and marked along the 541 MSL contour. NTMWD owns all lands below 541 MSL in fee simple. This contour corresponds approximately to the 100-year flood elevation and provides for the most frequently inundated lands to be within NTMWD-owned property.

What are boundary markers and how is the boundary line determined?

The boundary line for NTMWD-owned property was established along the 541 MSL contour elevation, which is not necessarily a straight line. Shoreline Lease and Use Agreement applicants are required to hire a registered surveyor to mark the common boundary line between NTMWD-owned property and the applicants’ private property for a distance of 100 feet on either side of an activity and/or facility proposed on NTMWD-owned property. If the application is for a vegetation modification approval or other activity that does not involve the construction of a facility, then the boundary must be marked along the length of the proposed activity or for a distance of 100 feet, running parallel to the shoreline. The boundary line should be marked using concrete monuments at the outermost limits of the proposed area of use at the 541 MSL contour. Iron stakes shall be embedded in the ground every 50 feet along the 541 MSL contour and Carsonite markers placed to extend above the ground surface.

Additional information regarding boundary line marking can be found in the Shoreline Management Plan, Section 4.2.5.

What do I need to do to develop my property?

Development of private land adjacent to the Lake is regulated by Fannin County in compliance with the county’s adopted zoning ordinance. Development of private structures on NTMWD shorelines, including structures on or over the water, are subject to approval and authority of NTMWD. Any private or commercial activities or facilities on NTMWD-owned property or over water are only allowed when authorized in writing by NTMWD through a Shoreline Lease and Use Agreement. A Shoreline Lease and Use Agreement is required for any development of private docks, any land-based facilities, access paths, or clearing of vegetation. Things that are left behind on the shoreline, such as picnic tables, chairs, or fire pits, are all subject to review by NTMWD. Floatable items may not be left on NTMWD-owned property.

Additional information regarding Shoreline Lease and Use Agreements can be found in the Shoreline Management Plan, Section 4.

Can I access the Lake from my adjacent property?

The Lake can be accessed by individuals who own property immediately adjacent to NTMWD-owned property. Motorized vehicles of any sort are generally prohibited from driving on or parking on NTMWD-owned property without a Mobility Assistance Vehicle Authorization. The creation of access paths is subject to approval through a Shoreline Lease and Use Agreement.

Can other people access the Lake from my adjacent property?

No. Public access to the Lake will only be allowed through public access boat ramps or other authorized access points.

Can other people use the NTMWD-owned property adjacent to my property?

Adjacent landowners may in no way interfere with the general public's use of the waters of the Lake, but it is not the intent of NTMWD to allow general public access to lands and shorelines adjacent to private property. Holders of agreements who occupy NTMWD lands and waters may not interfere in any way with NTMWD personnel in the discharge of their duties to monitor, inspect, and enforce the conditions of each agreement.

How do adjacent property owners apply for a Shoreline Lease and Use Agreement?

Requests for authorization to construct facilities or conduct activities on NTMWD-owned property, including both land and waters, must be submitted to NTMWD through My Government Online (MGO) Connect or in writing. Upon receipt and review of the initial inquiry, NTMWD will contact you to set up a meeting at the site to evaluate if what you are proposing is feasible.

Information regarding Shoreline Lease and Use Agreements is available in the Shoreline Management Plan, Section 4 and the application process is described in Section 6. Application forms for the most common activities and facilities are found in Appendix C of the Shoreline Management Plan.

What are the requirements for a boat dock?

In order to be considered for construction of a boat dock, property owners must own land adjacent to land classified as Dock Capable shoreline. A preapplication conference and site visit will determine eligibility for issuance of a Shoreline Lease and Use Agreement, which may allow construction of a boat dock. Water depth, access to open water areas of the Lake, boating hazards, and adjacent land uses and facilities may be limiting factors, and will be evaluated by NTMWD during a site visit.

Information regarding Shoreline Lease and Use Agreements for docks can be found within the Shoreline Management Plan, Section 4.3.1.1. Requirements for building boat docks can be found within the Shoreline Management Plan, Section 5.

Can I build my own boat dock?

Boat docks may be built by individuals; however, all plans for docks, including gangways, must be approved by a Texas-licensed professional engineer to ensure a quality, safe design, suitable for conditions on Bois d'Arc Lake. The applicant must include a statement with the plan certifying that the dock will be built in accordance with the Texas-licensed engineer approved plan. NTMWD will maintain a list of approved dock plans and dock builders to help streamline the dock application and construction processes. Additionally, the dock must be built in compliance with the design and construction standards outlined in the Shoreline Management Plan, Section 5.2.9.

Additional information regarding dock standards can be found in the Shoreline Management Plan, Section 5.

Who are registered contractors?

All plans for docks, including gangways, must be approved by a Texas-licensed engineer to ensure a quality, safe design suitable for conditions on Bois d'Arc Lake. NTMWD maintains contractor

requirements including requirements for registration with NTMWD through MGO Connect and maintain minimum levels of insurance.

Contractors performing work on behalf of Lessees who have obtained written authorization from NTMWD must meet the requirements outlined in the contractor requirements document available on the NTMWD Bois d'Arc Lake website in order to perform work on NTMWD property. These requirements are intended to ensure that contractors performing work on NTMWD property maintain minimum levels of insurance and up to date information with NTMWD as well as understand key NTMWD requirements for design and construction of improvements along the shoreline. These requirements are intended to help minimize risks to public health and safety as well as NTMWD property.

A list of registered contractors is maintained by NTMWD and may be provided to applicants. The Shoreline Lease and Use Agreement applicant may coordinate with the registered contractor of their choice for construction of their dock or other shoreline improvements. Only contractors with up-to-date information in MGO Connect will be allowed to work on NTMWD property.

Registered contractors may submit master plans for preapproval for each type of dock they intend to build, along with a master list of available colors, sizes, floatation type, gangway size and placement, roof pitch, and anchoring systems. These plans must be approved by a Texas-licensed engineer and the engineer's stamp must be included on the plans. Once approved, these plans will be kept on file at the Lake Operations Center.

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Additional information regarding registered contractors can be found on the NTMWD Bois d'Arc Lake website or in the Shoreline Management Plan, Section 5.2.6.

What types of facilities are permissible on NTMWD-owned property?

In addition to docks, land-based facilities such as decks, pergolas, gazebos, and barbeque pits may be authorized only along shorelines classified as Dock Capable or Limited Development. These facilities require authorization through a Shoreline Lease and Use Agreement. Items left behind on the shoreline must not be floatable. Hazardous materials, pesticides, herbicides, fertilizers, or fuels may not be stored on NTMWD-owned property. Access paths and clearing of vegetation also require a Shoreline Lease and Use Agreement.

Criteria regarding land-based facilities can be found in the Shoreline Management Plan, Section 4.3.1.4.

What is permissible in Environmentally Sensitive and Protected Areas?

Environmentally Sensitive shoreline areas are designated primarily to protect or restore aesthetic, fish and wildlife, cultural, or other environmental values such as littoral wetlands. These areas may have access restrictions. Signs and/or buoys will clearly identify where access is prohibited. No Shoreline Lease and Use Agreements will be issued in these areas.

What are the requirements for a vegetation modification Shoreline Lease and Use Agreement?

Vegetation modification is the removal or selective thinning of woody vegetation and native plants from NTMWD-owned property. Vegetation modification, such as tree thinning or underbrushing, must have prior written approval from the Lake Manager. Applications for vegetation modification will only be considered along shorelines classified as Dock Capable, Limited Development, or Public Access/Commercial Development and must be granted through issuance of a Shoreline Lease and Use Agreement. Requests for vegetation modification in areas with significant wildlife habitat, scenic or aesthetic resources, or areas with highly erodible soils may be denied or additional restrictions may be included in the agreement. Applications for vegetation modification agreements must be submitted through MGO Connect or in writing and an approved agreement must be signed before any work commences.

Additional information regarding vegetation modification can be found in the Shoreline Management Plan, Section 4.3.1.2.

Can I remove trees around the Lake?

Removal of vegetation or trees on NTMWD-owned property is prohibited without prior approval through a Shoreline Lease and Use Agreement. Only trees smaller than 2 inches in diameter at the ground level may be removed from NTMWD-owned property. Applications for vegetation modification will only be considered along shorelines classified as Dock Capable, Limited Development, or Public Access/Commercial Development and must be granted through issuance of a Shoreline Lease and Use Agreement. Applications for vegetation modification must be submitted through MGO Connect and an approved agreement must be in place before any work commences.

Additional information regarding the Vegetation Modification Shoreline Lease and Use Agreement can be found in the Shoreline Management Plan, Section 4.3.1.2.

Is timber clearing permissible by private individuals?

Standing timber below the 534 MSL contour may only be cut if approved by NTMWD. Requests to clear standing timber below the 534 MSL contour are only considered with an application for a private boat dock. Removal of standing timber may not exceed 0.5 acres total timber clearing per application. The applicant is responsible for obtaining the necessary approval and permit from USACE. NTMWD must also coordinate any request for removal of more than 0.25 acres with USACE. If there would be significant adverse effects on fish habitat, then an application will be denied. Adverse effects may result from the cumulative loss of standing timber or from site specific concerns related to an individual application.

Timber larger than 2 inches in diameter as measured at ground level above the 534 MSL contour may not be removed or cut on NTMWD-owned property. Timber clearing above the 534 MSL contour is not allowed.

Applications for boat docks that include a request to cut standing timber below the 534 MSL contour must be submitted through MGO Connect or in writing and an approved agreement must

be signed before any work commences. Additional information regarding standing timber removal are available in the Shoreline Management Plan, Section 4.3.1.

Is Lake dredging permissible by private individuals?

Lake dredging is not permissible by private individuals.

Will there be marinas?

Privately owned marinas will be authorized on the Lake through a contractual agreement with NTMWD. NTMWD will not build or operate marinas on the Lake.

How do potential concessionaires (resorts, marinas, etc.) start the approval process?

Commercial activities such as marinas, resorts, restaurants, and campgrounds may be authorized by NTMWD. Contracts for commercial activities may include long-term leases for occupancy of NTMWD-owned property. There is currently a shoreline classification overlay for Future Commercial/Marina. The overlay zone provides an indication of suitability for marina and commercial development based on physical characteristics of the shoreline and the adjacent land uses and transportation network. Commercial development in these overlay zones may be approved at the discretion of NTMWD. Additional restrictions, such as adequate setbacks from private boat docks, may be required. Interested parties may contact the Lake Manager for information regarding the commercial activity review and approval process.

Will there be trails along the shoreline?

There are currently no plans for a trail system at Bois d'Arc Lake.

Can I build a boat ramp?

Construction of boat ramps by private individuals will not be allowed. Public access to the Lake will only be allowed through public access boat ramps. Commercial enterprises such as marinas or resorts may include boat ramps that provide access to the Lake.

Can I use Lake water for irrigation?

No. The use of irrigation pumps is strictly prohibited.

Can I hunt on the Lake or on NTMWD-owned Property?

The Shoreline Management Plan does not prohibit the lawful use of the Lake surface for hunting. The Fannin County Sheriff and Texas Parks and Wildlife Department game wardens are responsible for enforcing safe hunting laws. Hunters must have appropriate licenses and operate during legal seasons. Local and state laws regarding the discharge of firearms near residential areas will be enforced.

Can I use and/or store fuels, pesticides, or fertilizers on NTMWD-owned property?

Fuel, oil, treated landscape timbers, treated wood, pesticides, herbicides, fertilizers, and other hazardous materials are not to be placed or stored on docks or on NTMWD-owned property. The use of pesticides and fertilizers on NTMWD-owned property and/or water is prohibited. Herbicides

may be used if authorized through a Natural Resource Management Notification and in accordance with Texas Parks and Wildlife Department regulations for aquatic vegetation removal.

Can I purchase property that is currently owned by NTMWD?

NTMWD is not currently selling any additional property surrounding the Lake. The need for this property will be evaluated following completion of the Lake.

Can I drive ATVs and vehicles on NTMWD-owned property?

Motorized vehicles of any sort are generally prohibited from driving on or parking on NTMWD-owned property without a mobility assistance vehicle agreement. Only golf carts, ATVs, and UTVs may be used on NTMWD-owned property with a mobility assistance vehicle agreement.

Information regarding the mobility assistance vehicle agreement can be found in the Shoreline Management Plan, Section 4.3.5.

Can I ride my horse around the Lake?

There are currently no plans for trails surrounding the Lake. Additionally, it is not the intent of NTMWD to allow general public access to lands and shorelines adjacent to private property.

Are there parks on the Lake?

There are currently no plans for parks on land adjacent to the Lake. Applications for future development of parks will be considered by NTMWD on a case-by-case basis.

Can I camp on or around the Lake?

There are currently no campgrounds planned for development surrounding the Lake. Applications for future development of campgrounds as a commercial activity will be considered by NTMWD on a case-by-case basis.

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